



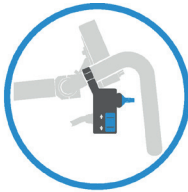
OPERATING INSTRUCTIONS

FGE780

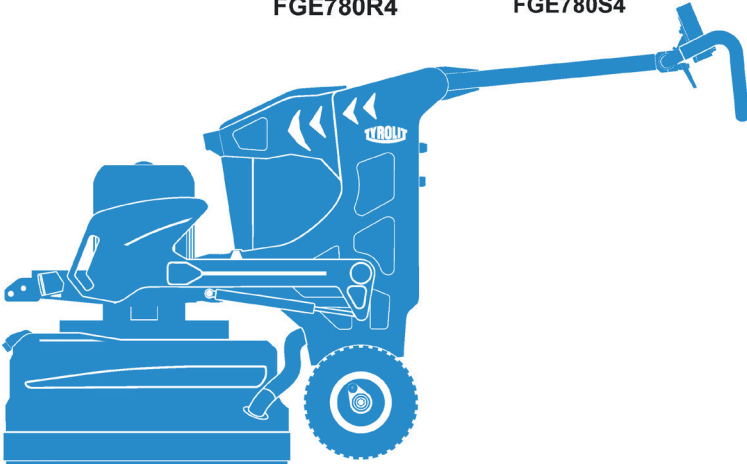
Index 000



FGE780R3
FGE780R4



FGE780S3
FGE780S4



Congratulations!

You have chosen tried and tested TYROLIT equipment that sets technological standards for the industry. Only genuine Tyrolit spare parts guarantee quality and problem-free replacement. If maintenance work is neglected or not performed correctly, we cannot cover our warranty obligations. All repairs must be performed by trained specialist personnel only.

Our Customer Service is at your disposal to help keep your TYROLIT equipment in perfect condition.

We wish you smooth, trouble-free working.

Tyrolit

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1 About these instructions



This instruction booklet is just part of the documentation for the FGE780 floor grinder. This booklet is only complete together with the "Floor grinding safety manual".

This booklet together with the "Floor grinding safety manual" is part of the equipment. It describes safe and correct use in all operating phases.

- Carefully read the instructions, especially the safety information, before use.
- Keep the instructions throughout the lifetime of the equipment.
- Keep the instructions accessible to the operator and service technician at all times.
- Always pass on instructions to all future owners or users of the equipment.
- Update the instructions whenever you receive an update from the manufacturer.

1.1 Symbols in these instructions



DANGER

Warning of dangers which, if not avoided, can lead to severe or fatal injury.



WARNING

Warning of dangers which, if not avoided, can lead to injury or material damages.



WARNING

Warning of dangerous electric voltage.

Before working in an area with this warning, completely disconnect the system or equipment from the power supply (voltage) and secure so it cannot be inadvertently switched back on.



INFORMATION

Information for optimum use of the equipment. If this information is not heeded, the specifications in the technical data cannot be guaranteed.



RECYCLING

Recycling waste materials.



DISPOSAL

For disposal, pay attention to the usual regional and domestic laws and regulations in your country.

2. Safety



INFORMATION

Grinding machines may only be used by authorised personnel. You can find information on authorised personal in the "Floor grinding safety manual".

2.1 Protection devices and signs on the equipment

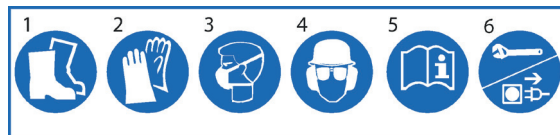
2.1.1 Protection devices

Protection devices may only be removed when the equipment is switched off, has been disconnected from the mains supply and is stationary. Safety components, in particular, may only be removed and re-installed by authorised persons.

Safety elements must be checked to ensure they are in perfect working order before the equipment is brought back into operation.

2.1.2 Signs on the equipment

Safety sign



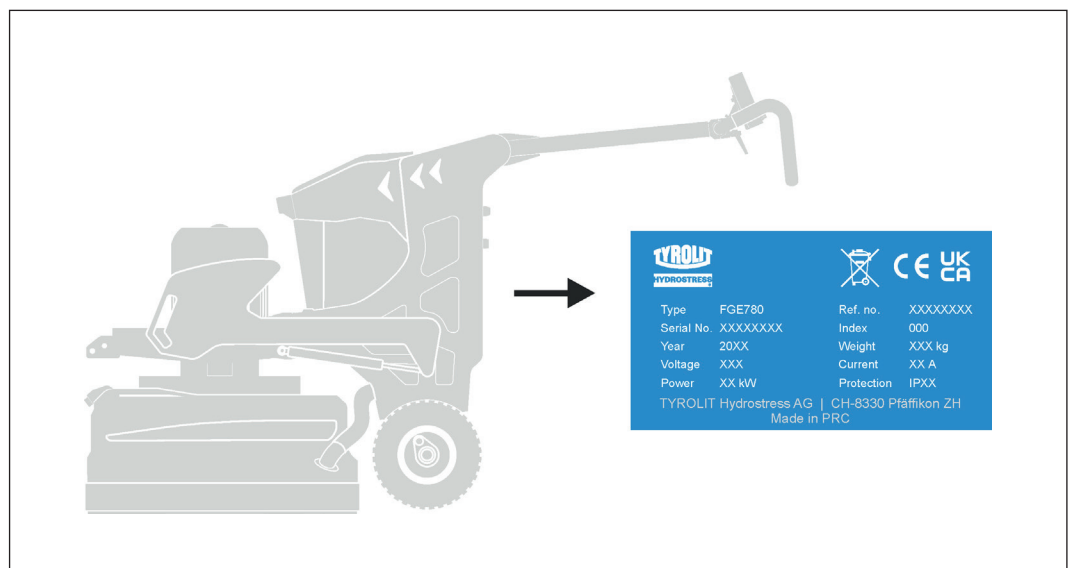
- 1 Wear protective boots
2 Wear gloves
3 Wear a respirator mask

- 4 Wear a helmet, goggles and ear protection
5 Read the instructions
6 Disconnect the mains plug before working on the equipment



Crane hook

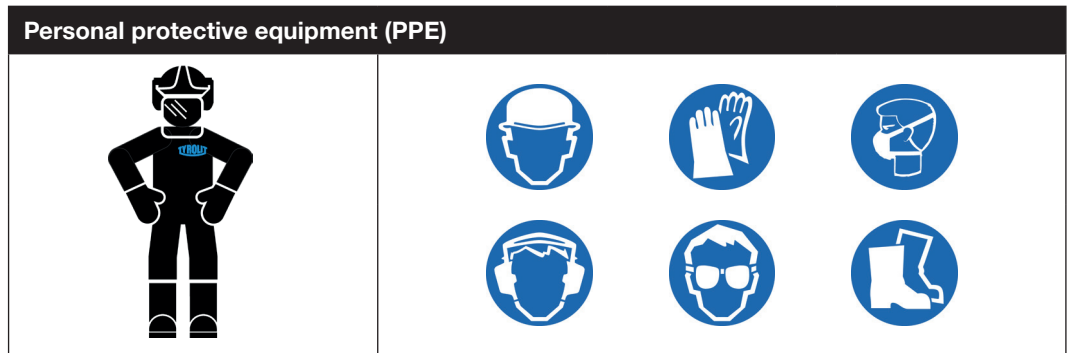
Type plate



Type plate

2.1.3 Personal protective equipment (PPE)

The wearing of PPE is essential for all work with and on floor grinders.

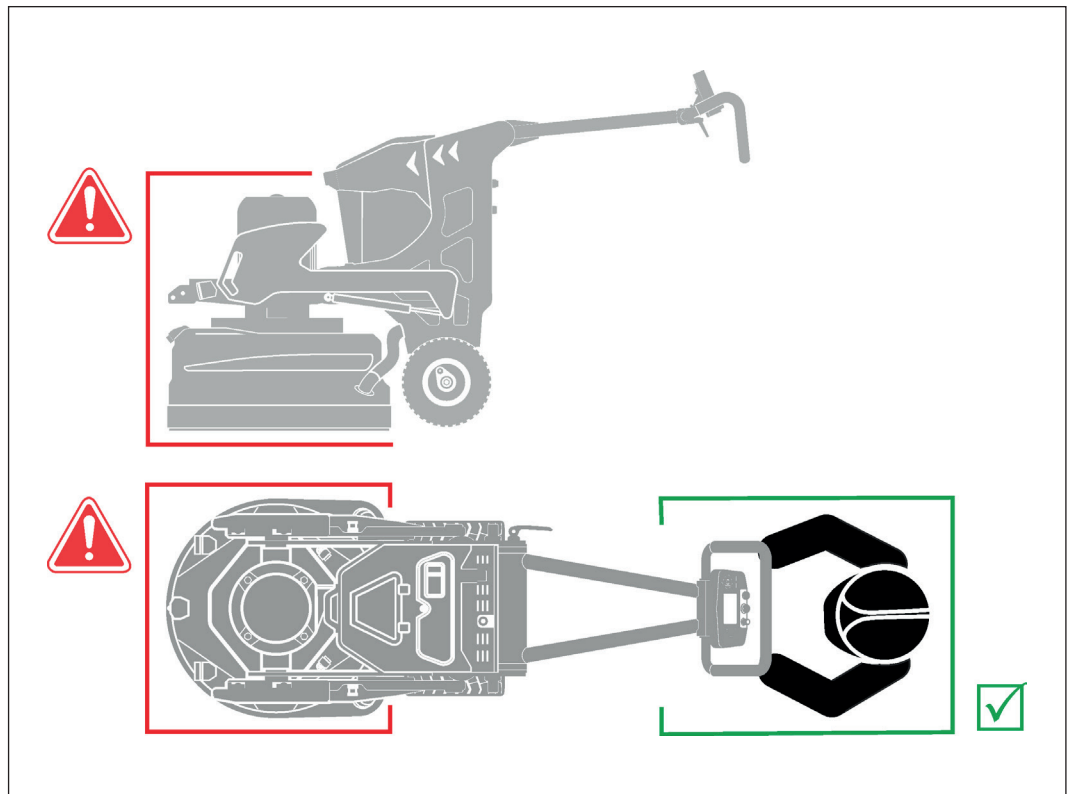


Personal protective equipment (PPE)

2.2 Danger zone and work area

2.2.1 Floor grinder danger zone

The area marked in the drawing shows the danger zone around the floor grinder. No part of the body may be inside this area while the floor grinder is running.



Floor grinder danger zone

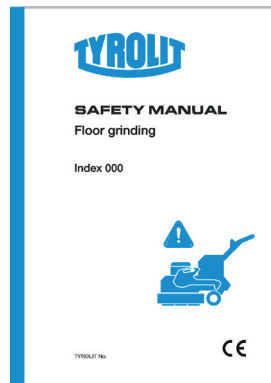
2.2.2 Workstation danger zone



INFORMATION

You can find information on the workstation danger zone in the "Floor grinding safety manual".

Floor grinder safety manual

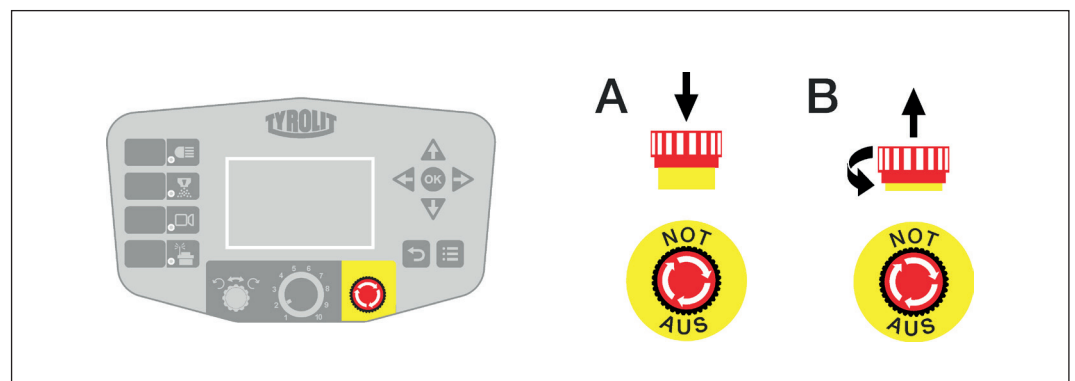


Floor grinder safety manual

2.3 What to do in an emergency

► Press the EMERGENCY STOP button.

If the EMERGENCY STOP is activated on the control panel or on the radio remote control, the machine is at a standstill. To continue working, the EMERGENCY STOP must be deactivated.



What to do in an emergency

- A Activate EMERGENCY STOP
- B Deactivate EMERGENCY STOP

2.4 Spare parts and modifications

Only use genuine spare parts from TYROLIT Hydrostress. Otherwise, personal injury, damage to the equipment and other material damages can occur. Do not install attachments on or convert the equipment without the written consent of TYROLIT Hydrostress.

2.5 Residual risks

There is a risk of severe injury resulting from the residual risks described below.

2.5.1 Grinding tools flying away

- Only start grinding when there are no other persons in the danger zone.
- Make sure that a safety distance is complied with.
- If grinding tools are damaged, change them.
- Grinding without a protection cover is prohibited.

2.5.2 Uncontrolled movements and vibrations

- Do not connect or disconnect cables when the floor grinder is running.

2.5.3 Getting trapped and caught

Items of clothing or long hair could be caught by the rotating cutting tool.

- Do not wear loose clothing when working.
- Secure long hair in a hair net.

2.5.4 Harmful dust

Inhaling dust can lead to respiratory problems.

Inhaling dust emanating from the machine is hazardous to health.

- Wear a respirator mask.
- Make sure that closed rooms have adequate ventilation.
- Use a dust extractor during work.

2.5.5 Poor physical condition

- Do not work under the influence of alcohol, drugs or medication.
- Do not work when overtired.

2.5.6 Grinding tool quality

- Do not use damaged grinding tools.
- Check grinding tools for damage before assembly.

2.5.7 Danger from a grinding tool continuing to run in an accident

- Make sure that the floor grinder can be stopped quickly.



DANGER

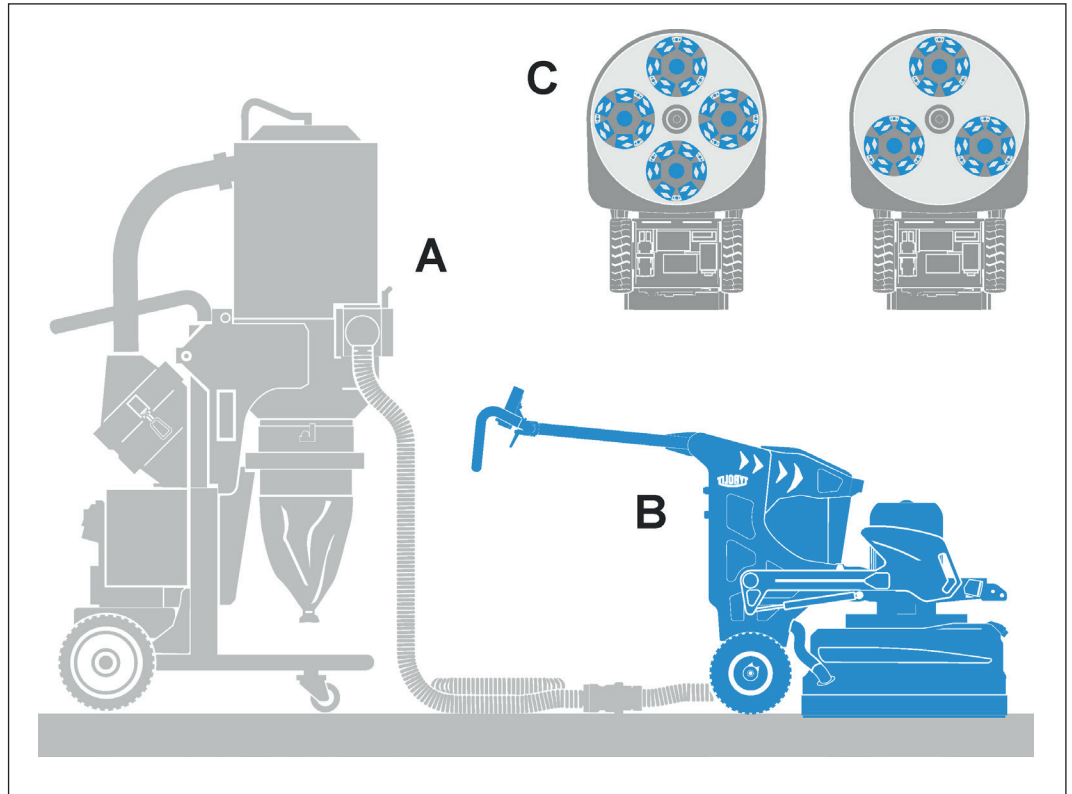
Death or severe injury can result if the safety information in the "Floor grinding safety manual" is not observed.

- ▶ Make sure that the "Floor grinding safety manual" is read completely and has been understood.

3. Product description

3.1 Grinding system

The FGE780 floor grinder is used with matching TYROLIT Hydrostress components and grinding tools to form a grinding system.



System





- A Dust extractor
- B Floor grinder
- C Grinding tools

3.2 Type designations and designs



INFORMATION

The FGE780 floor grinder is available in different designs.

	3 grinding discs	4 grinding discs	Remote control	Control panel
				
FGE780R3	X		X	
FGE780R4		X	X	
FGE780S3	X			X
FGE780S4		X		X

3.3 Intended use

The floor grinder has been designed and built for the following use:

- Only use the floor grinder for grinding, rough grinding and renovating floor coverings and other materials stated in this booklet or recommended by TYROLIT Hydrostress.
- Use the floor grinder solely with genuine tools and spare parts from TYROLIT. Otherwise, the CE marking and the warranty will lose their validity.

Binding operating limits and characteristic data can be found in the "Technical data" section.

3.4 Delivery

3.4.1 Unpacking the equipment

Upon delivery, check carefully for any damage to packaging or equipment. If you notice signs of damage, report the damage to an authorized dealer. In addition, notify the transport company of any external damage.

3.4.2 Scope of delivery

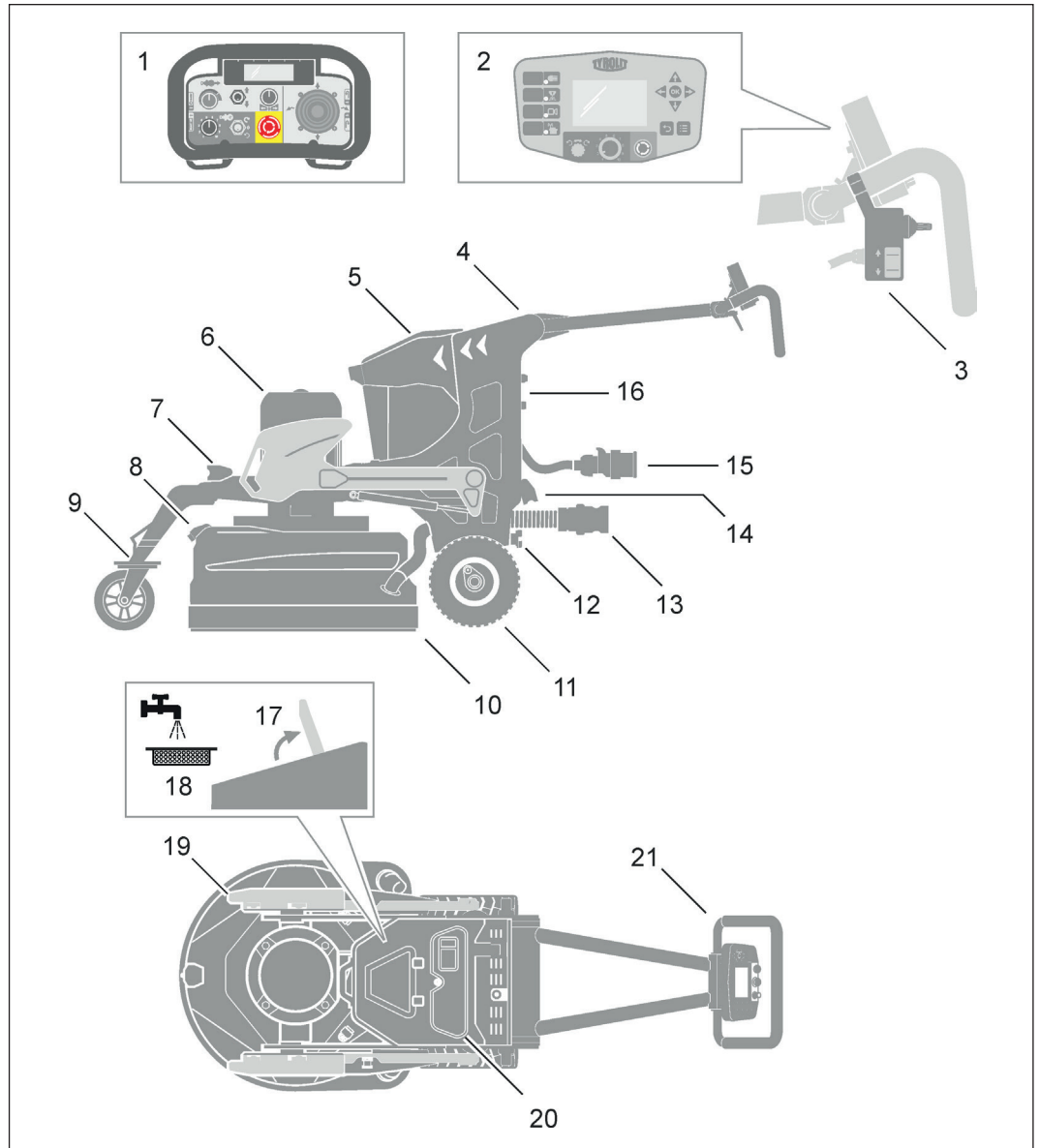
Check whether the delivery corresponds to the order. Contact an authorized dealer if you have any questions.

Included in delivery:

- Floor grinder
- Operating instructions/Floor grinder safety manual
- Remote control (type FGE780R3 and FGE780R4)

4 Design and function

4.1 Design

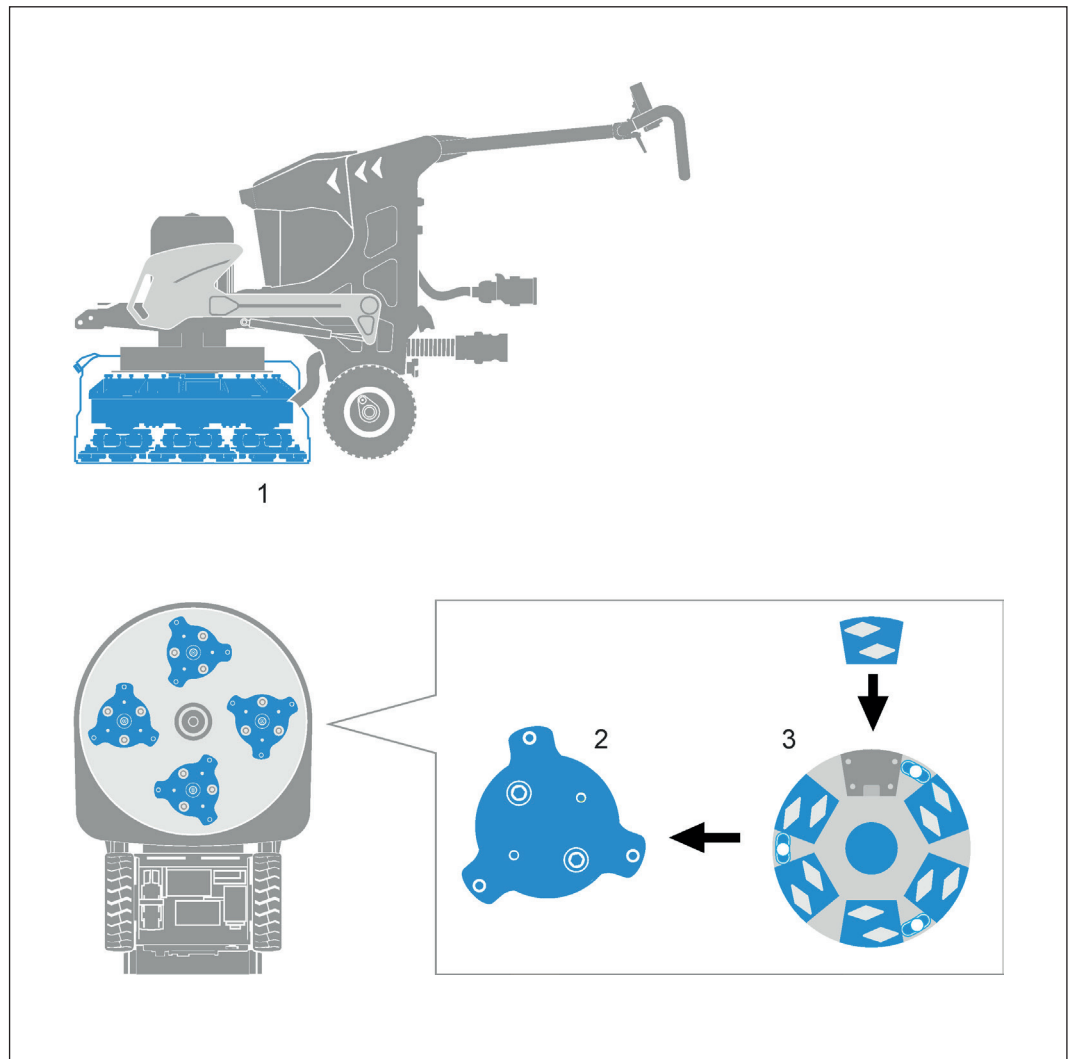


Design

- | | |
|-----------------------------------|---|
| 1 Remote control FGE780R3/4 | 13 Dust collector connection |
| 2 Control panel | 14 Light at rear |
| 3 Control panel FGE780S3/4 | 15 Power connection |
| 4 Chassis | 16 Control unit |
| 5 Water tank | 17 Flap to water tank |
| 6 Engine | 18 Water coarse sieve |
| 7 Light at front | 19 Weight with handle recess |
| 8 Nozzle for spray-cooling system | 20 Material compartment for battery charger |
| 9 Transport wheel | 21 Handle with holder for operating unit |
| 10 Grinding head | |
| 11 Wheel | |
| 12 Water connection | |

4.1.1 Grinding head

The grinding head can be equipped with different grinding tools. The cover together with the connected dust extractor ensures a good work environment. The cover ensures that the operator does not touch any rotating machine parts and minimises dust generation. Make sure that the cover is always in contact with the backing, so that no dust particles can be released.



Grinding head

- 1 Grinding head
- 2 Grinding disc mounting
- 3 Grinding disc incl. Grinding tool

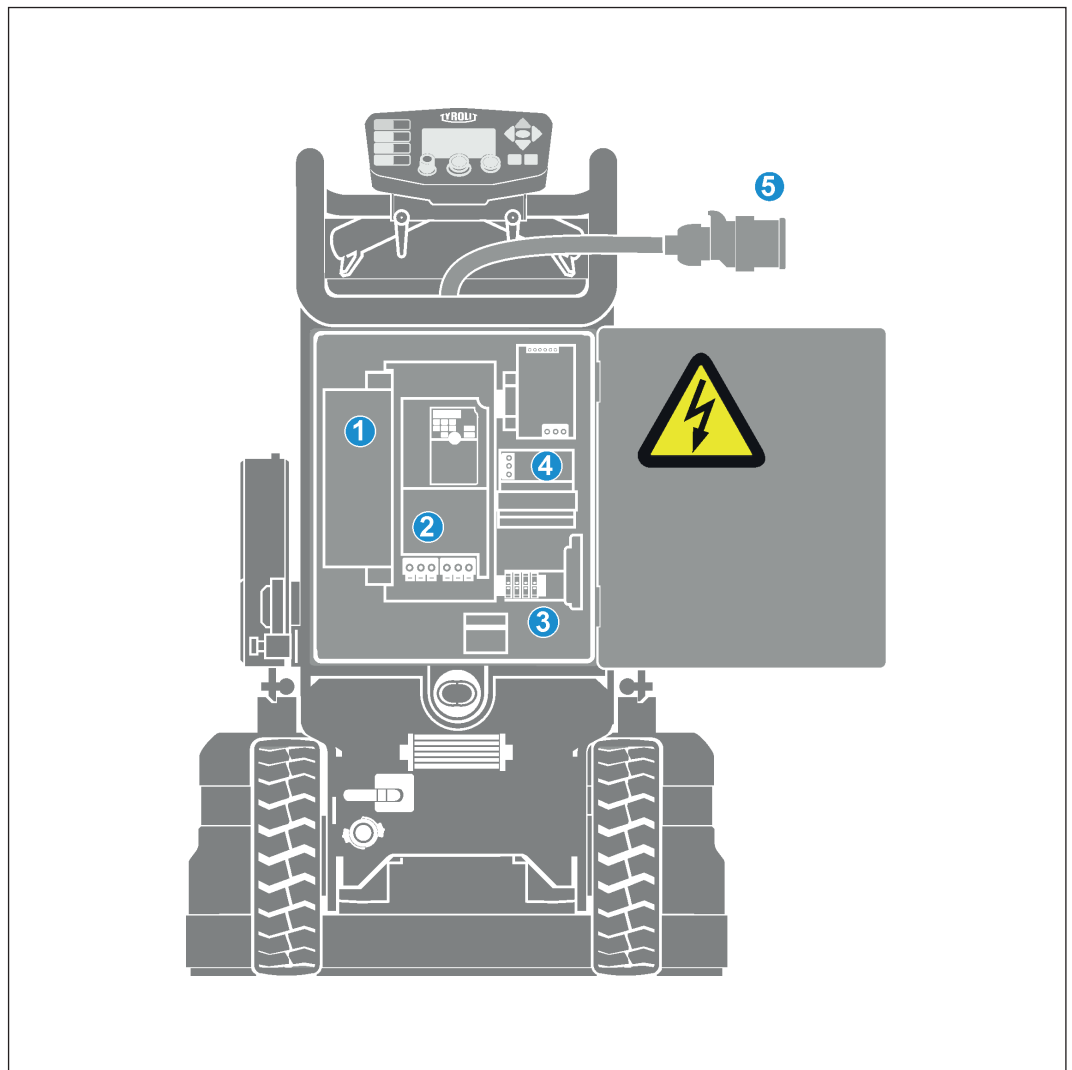
4.1.2 Control unit



DANGER

Warning of dangerous electric voltage.

Before working in an area with this warning, completely disconnect the system or equipment from the power supply (voltage) and secure so it cannot be inadvertently switched back on.



Control unit

Electrical components			
1	EMC filter	4	Power supply unit
2	Frequency converter	5	Power connection cable
3	Terminal block		

4.2 Function

4.2.1 Functional description

The grinding disc with fitted grinding tools is driven by an air-cooled electric motor. The optimum speed of the grinding disc and grinding tools is set via a rotary switch on the control unit or remote control.

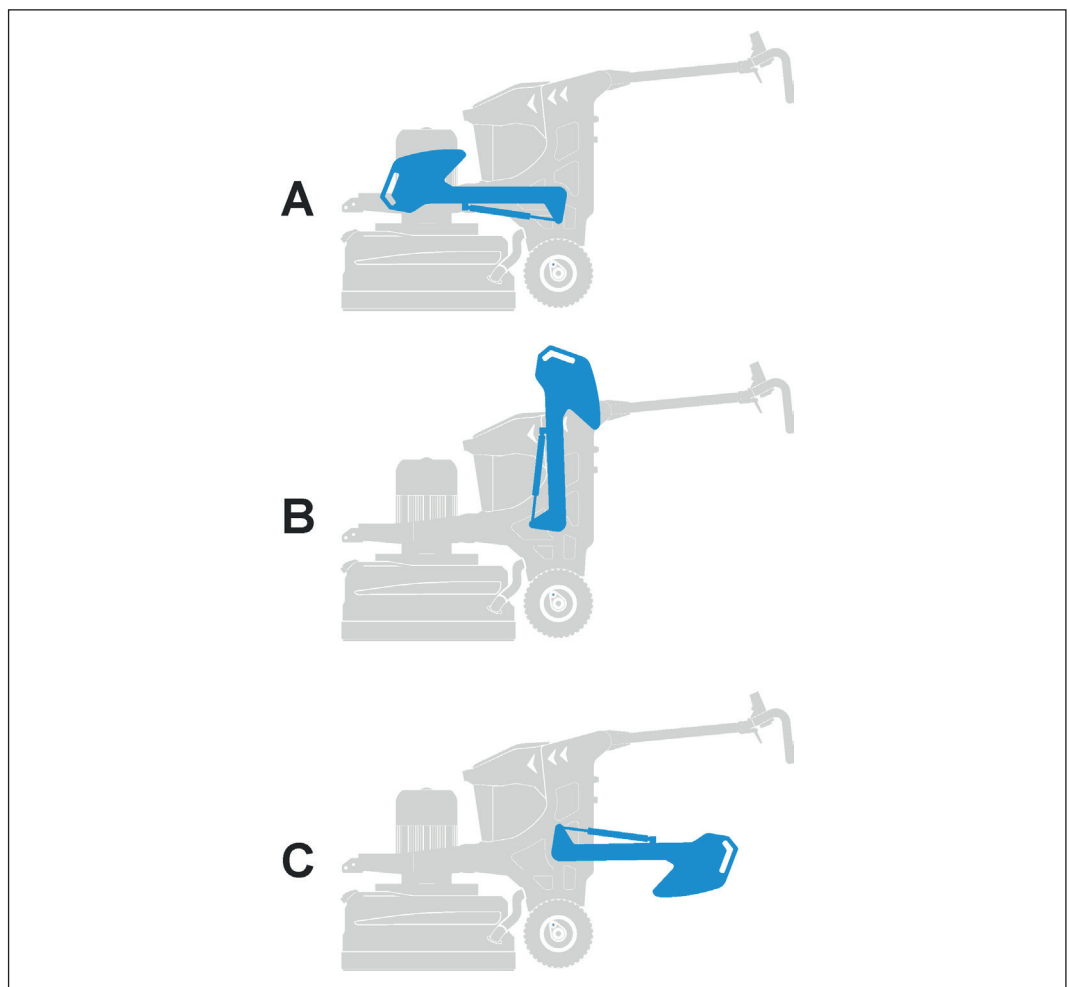
4.2.2 Grinding pressure



INFORMATION

The grinding pressure is determined by the swivelling weights and the number of grinding tools. The fewer grinding tools, the greater the grinding pressure.

If the machine is running at the load limit, this may be due to the position of the weights. Fold the weights back to relieve the grinding head.



Grinding pressure

Weights in different positions	
Weight position A	Max. grinding pressure
Weight position B	Medium grinding pressure
Weight position C	Minimal grinding pressure, tilt position for tool change

5. Mounting/Removing

5.1 Grinding tool assembly



DANGER

Risk of severe injury due to the floor grinder starting up unexpectedly.

► Disconnect the floor grinder from the mains before working on the grinding disc.



INFORMATION

TYROLIT offers grinding tools for specific surfaces and different types of work. You can find information on grinding tools on the TYROLIT website.



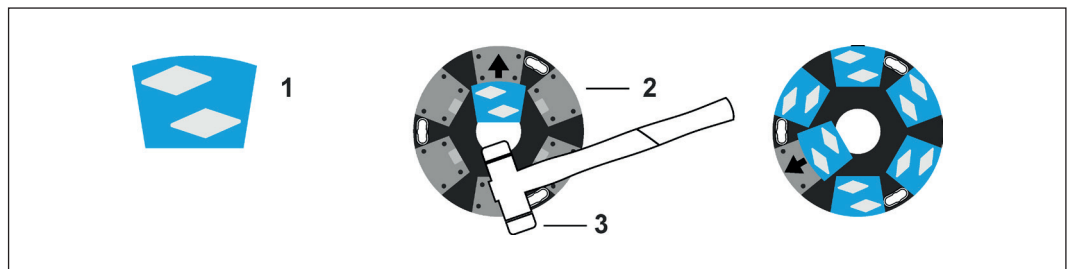
INFORMATION

Always use a plastic mallet for mounting grinding tools.

Metal hammers can damage the grinding tool and grinding disc.

✓ Tool

Plastic mallet



Grinding tool assembly

- 1 Grinding tool
- 2 Grinding disc
- 3 Plastic mallet

5.1.1 Assembly

✓ Tool and tool holder are clean.

5.1.2 Dismantling

► To change the tool, detach the grinding tool with a few light taps of the plastic mallet. Then pull the grinding tool out of the holder.

5.2 Mounting the grinding disc

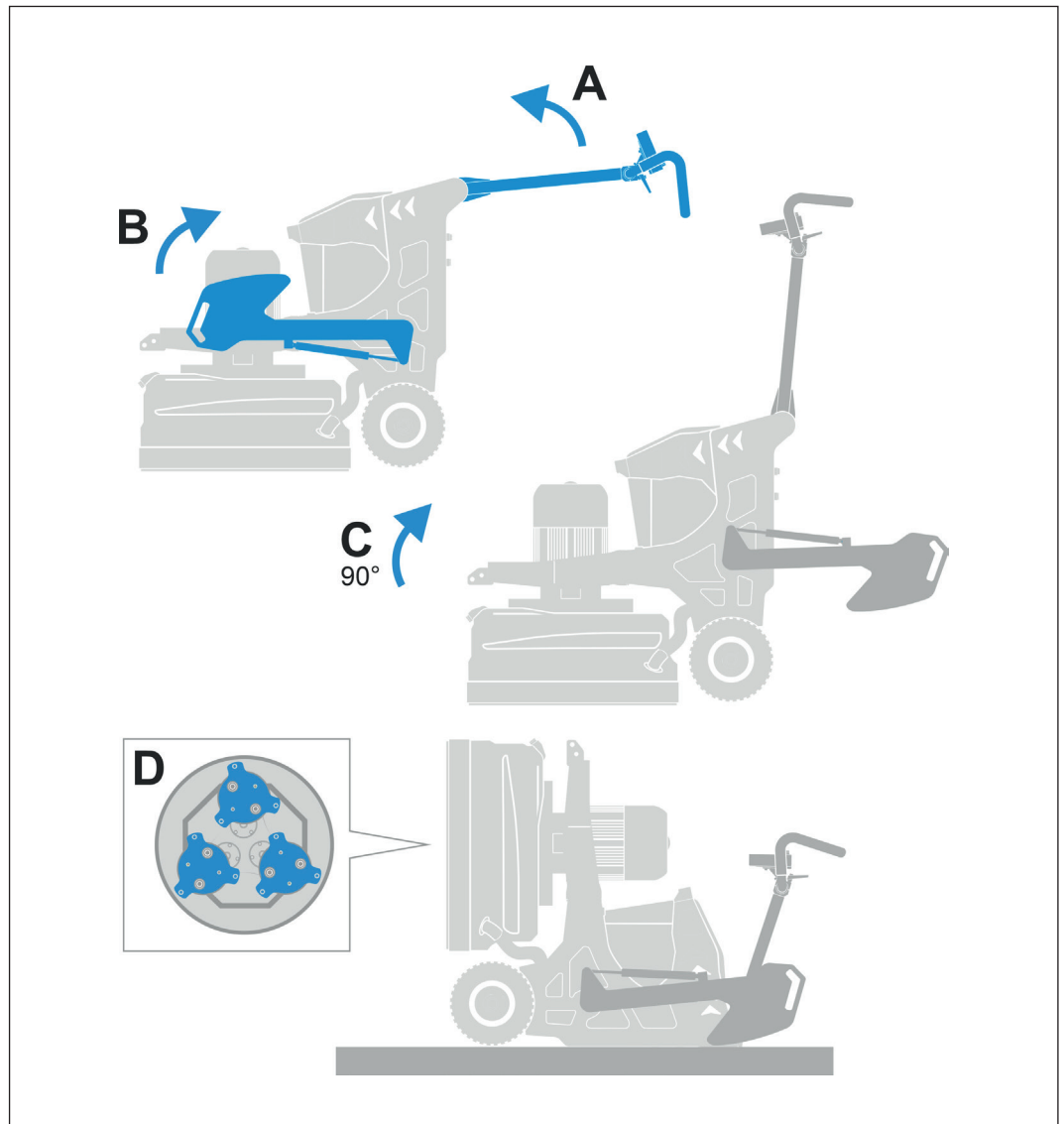


DANGER

Risk of severe injury due to a floor grinder suddenly starting up or falling over.

- ▶ Switch off the floor grinder before working on the grinding disc.
- ▶ Disconnect the floor grinder from the mains supply.
- ▶ Make sure that nothing can get trapped or squashed when tilting the floor grinder.

5.2.1 Position of floor grinder



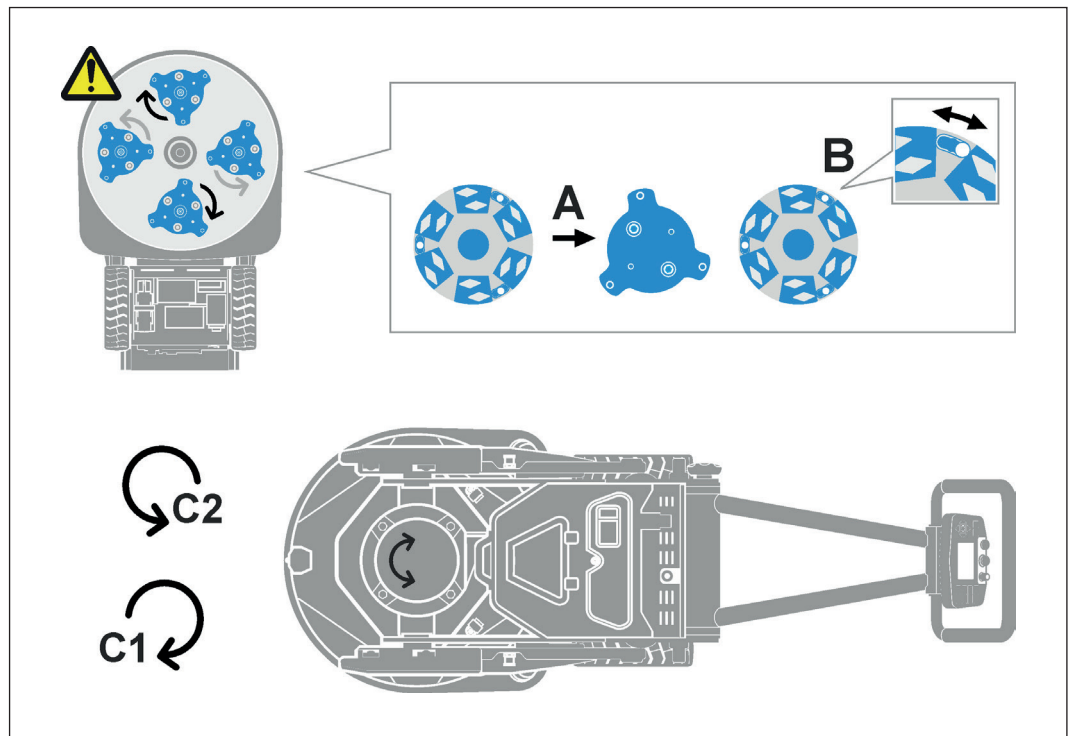
Machine position when mounting the grinding disc



INFORMATION

Ensure that the machine is standing on a firm, level and non-slip surface when installing or changing tools.

5.2.2 Mounting the grinding disc



Mounting the grinding disc

Proceed as follows:

- ✓ Tools are firmly mounted on the tool disc
- ✓ Tool disc with tools and mounting are clean.



WARNING

Warning against incorrectly grinding discs and tools.

For grinding heads with four discs, ensure that two discs rotate anti-clockwise and two discs rotate clockwise. For grinding heads with three discs, the direction of rotation is the same for all discs. The function of some grinding tools depends on the direction of rotation. The tool can be destroyed if tools are fitted incorrectly.



INFORMATION

The grinding disc can be rotated to the right as well as to the left as far as it will go. The decisive factor is the direction of tool rotation C1 and C2. Make sure that the stop acts against the direction of rotation.



INFORMATION

For the assembly of other grinding tool mounting systems, please contact your TYROLIT customer service.



INFORMATION

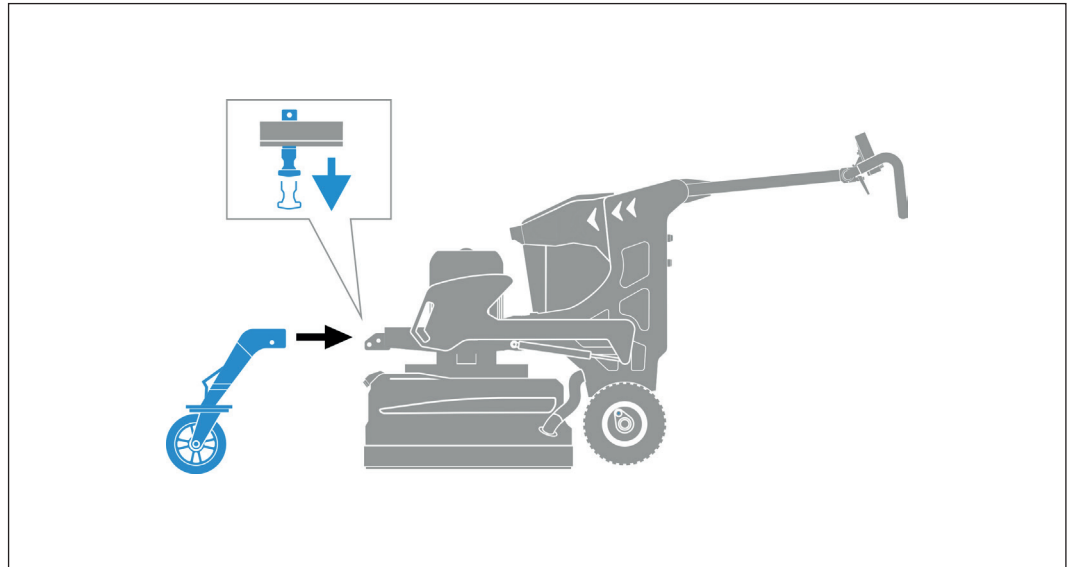
After mounting the tools, make sure that the machine is carefully tilted forward so that the tools do not come loose.

5.3 Assembly/disassembly of transport wheel



INFORMATION

To manoeuvre the machine easily, the transport wheel can be mounted and disassembled without tools.



Assembly/disassembly of transport wheel

6 Operation

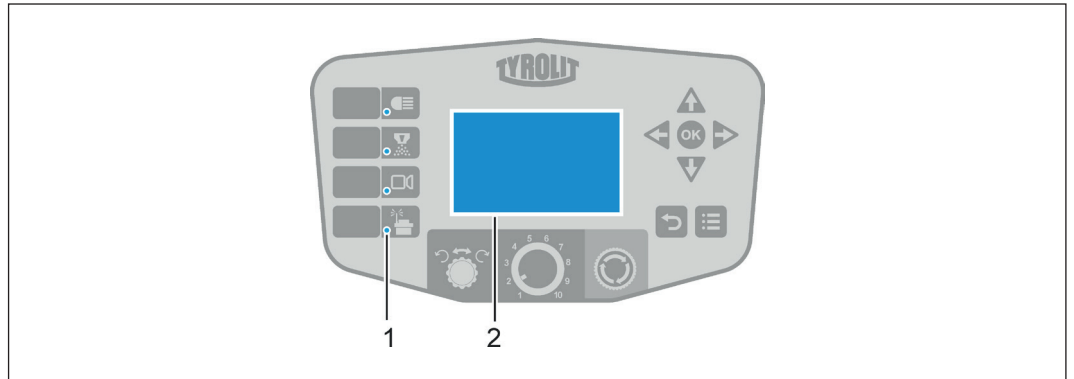


INFORMATION

The following section describes the operation of the grinding machine. It does not deal with the technical aspects of grinding, such as the choice of grinding tools, etc.

6.1 Displays and controls

6.1.1 Control unit display elements

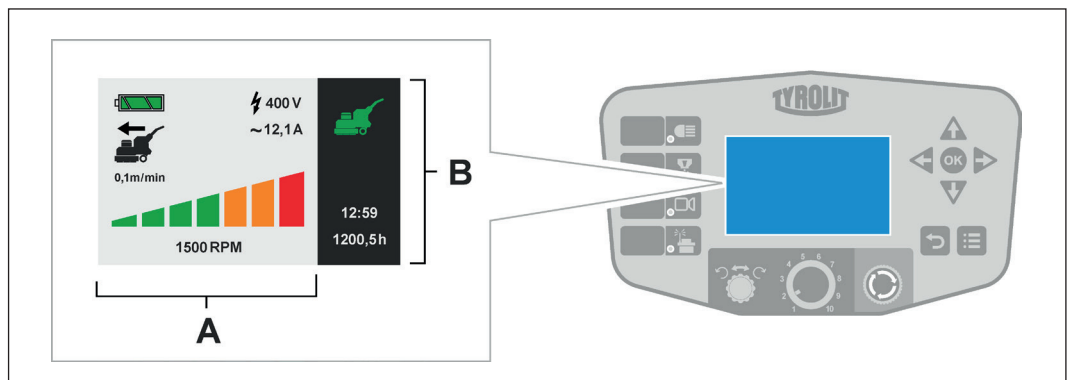


Display elements

- 1 Pressure indicator light - keys
- 2 Display

6.1.2 Display elements

Display fields



Display fields

- A Vario information field
- B Status information field



Vario information field






In the Vario information field, error and performance information as well as time information is displayed.



























Status information field

The machine system information is displayed in the status information field.

6.1.3 Display symbols

Status information field			
	Service		Service indicators
	Repair		Repair
	Normal operation		

Vario information field			
	Operating instructions		De-energised
	Main engine		Overtemperature
	Water/cooling		Weight on the grinding head
	Deactivate EMERGENCY STOP		Frequency converter
	Activate EMERGENCY STOP		Undercurrent
	Optical control		Heat sink overtemperature
	Power line		Reduce speed
	FU output stage		Battery
	Phase missing		Time
	Phase		Power
	Battery: Fully charged		TYROLIT customer service
	Battery: Charge status low		
	Battery: Charge status empty		

6.1.4 Application symbols



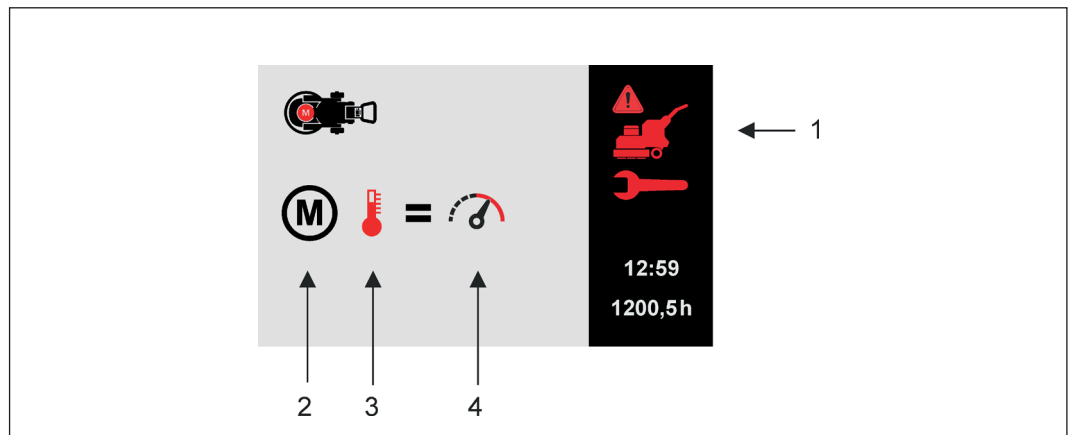
INFORMATION

The individual status and vario symbols can be combined to form statements

Example error display:

Cause: Main motor overtemperature

Measure: Reduce speed

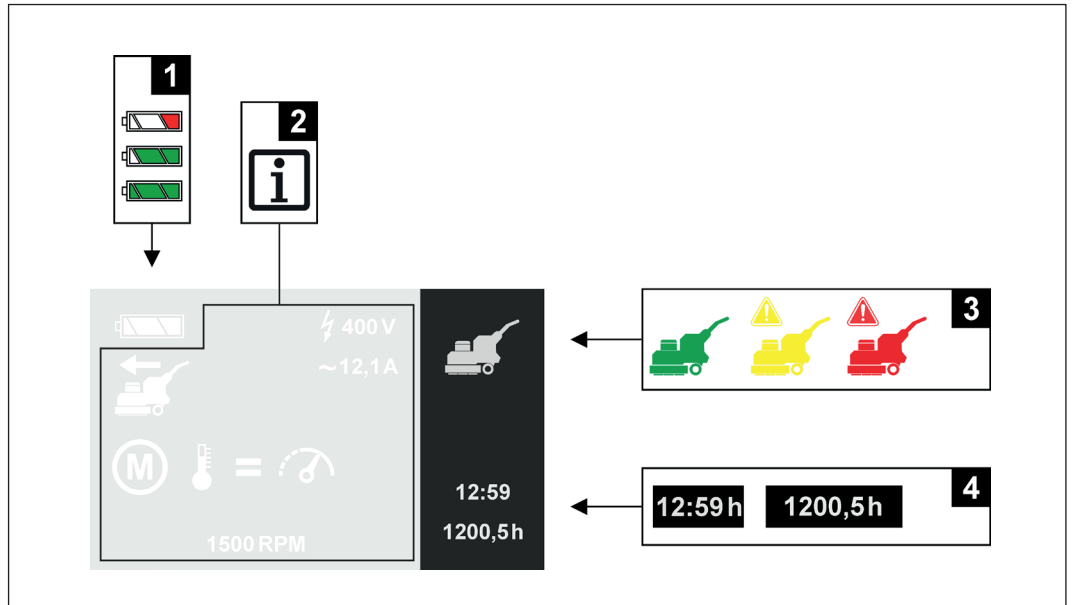


Example vario fields

Display indication:

Fault indication (1): Main motor (2) has overtemperature (3); the countermeasure is to reduce speed (4).

6.1.5 Display breakdown



Display breakdown

1 Battery state of charge	
	Battery display: Charge status empty/low/charged
2 Information	
	The Vario information field displays error and performance information as well as work information.
3 Machine status	
	With this status, the information field Work - System information is displayed.
	With this status, service notes are displayed on the information field.
	With this status, errors are displayed on the information field.
4 Time and operating hours	
00:00	00:00 h Time
... h	00000 h Operating hours

6.1.7 Error message

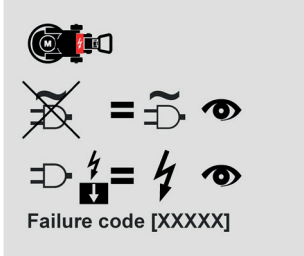
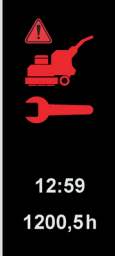
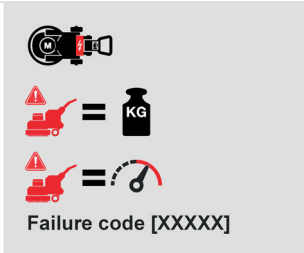
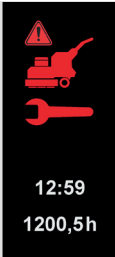


INFORMATION

Subsequent errors are indicated visually via the display.
When contacting TYROLIT customer service, reference the error number.

Error messages table:

Error	Measure	Display	
General disturbance	<ul style="list-style-type: none"> ▶ Unplug machine for 1 min. and start again ▶ In case of repeated occurrence, contact TYROLIT customer service. 	<p>Failure code [XXXXX]</p>	<p>12:59 1200,5h</p>
Emergency Stop active	<ul style="list-style-type: none"> ▶ Deactivate EMERGENCY STOP 	<p>Failure code [XXXXX]</p>	<p>12:59 1200,5h</p>
High motor temperature	<ul style="list-style-type: none"> ▶ Reduce load and/or speed 	<p>Failure code [XXXXX]</p>	<p>12:59 1200,5h</p>
Motor overtemperature	<ul style="list-style-type: none"> ▶ Allow engine to cool down ▶ Reduce load and/or speed 	<p>Failure code [XXXXX]</p>	<p>12:59 1200,5h</p>
Frequency inverter overtemperature	<ul style="list-style-type: none"> ▶ Clean heat sink ▶ Reduce load and/or speed 	<p>Failure code [XXXXX]</p>	<p>12:59 1200,5h</p>

Error	Measure	Display
Mains phase missing/ power supply fluctuates	<ul style="list-style-type: none"> ▶ Check mains voltage ▶ phases, lines and fuses 	  <p>12:59 1200,5h</p>
Machine overload	<ul style="list-style-type: none"> ▶ Reduce load and/or speed 	  <p>12:59 1200,5h</p>

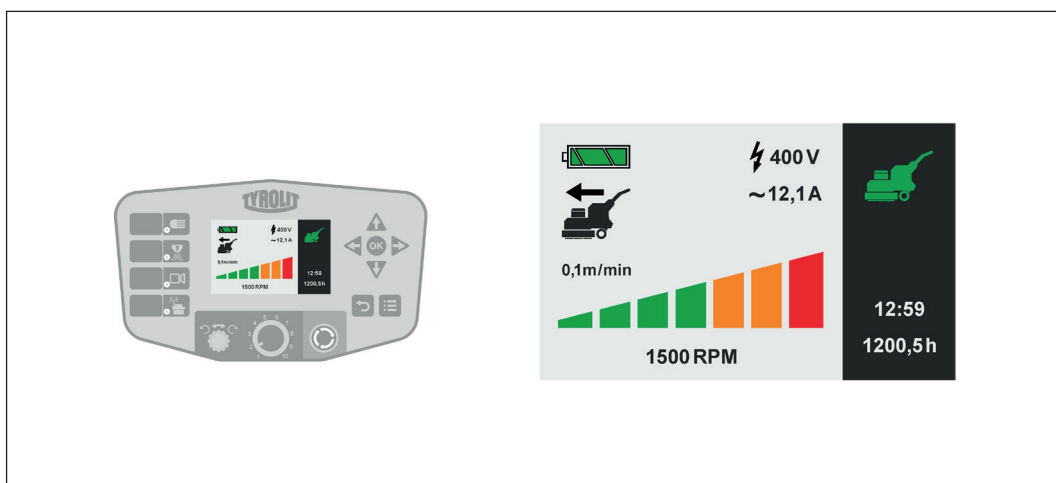
Error messages

6.1.8 Power display in operating state



INFORMATION

The current power range is visualised by means of a colour power display.
Ideal: Orange areas.



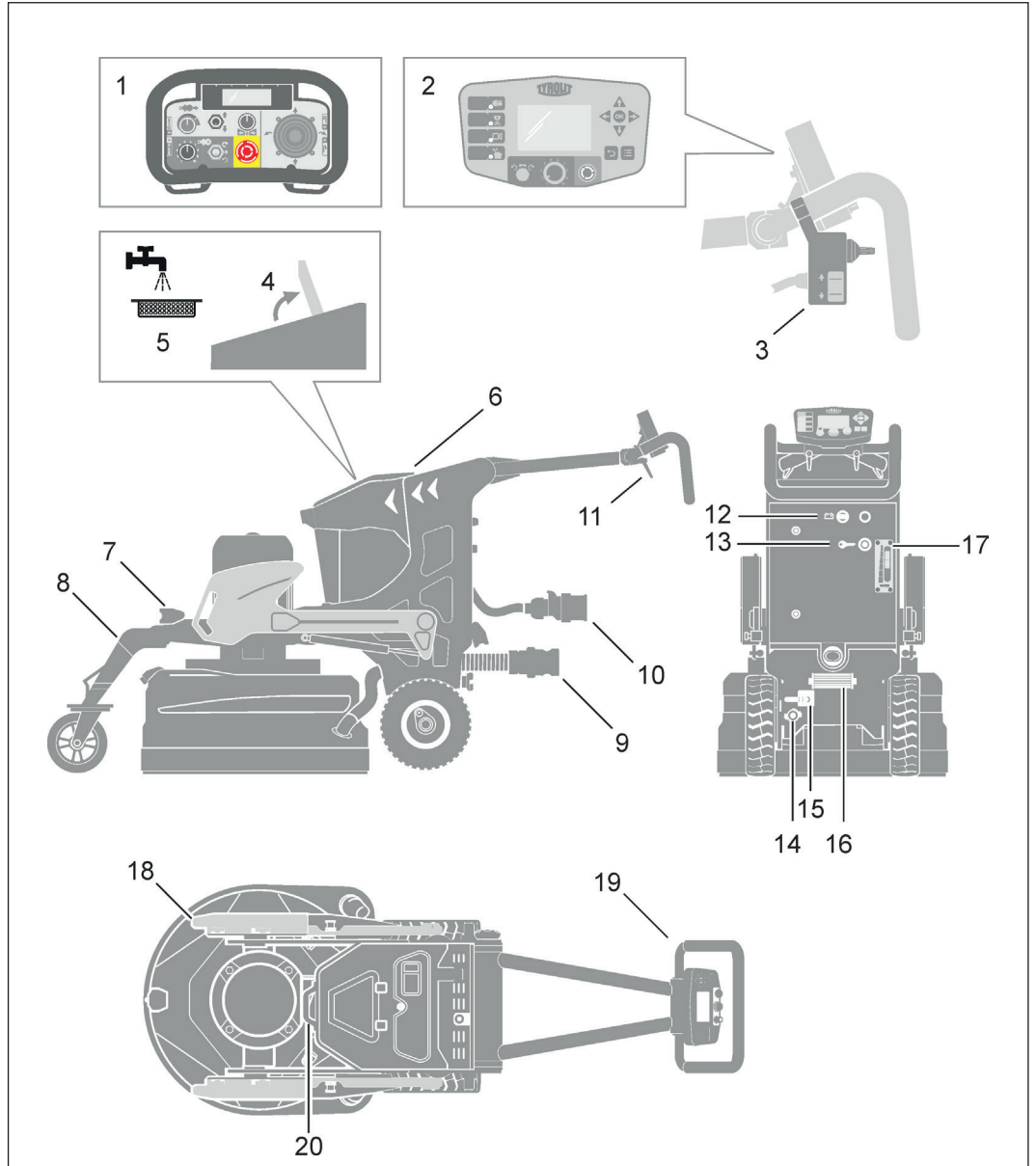
Power display

6.2 Controls



This section describes the operating elements on the grinding machine.

You can find further information in the TYROLIT "Floor grinding safety manual".



Controls

- | | |
|-----------------------------|-----------------------|
| 1 Remote control FGE780R | 11 Handle lock |
| 2 Control panel | 12 Battery switch |
| 3 Control panel FGE780S | 13 Lock to key switch |
| 4 Water tank with flap | 14 Water connection |
| 5 Water coarse sieve | 15 Water valve |
| 6 Material compartment | 16 Light at rear |
| 7 Light at front | 17 Water valve |
| 8 Transport wheel | 18 Weight |
| 9 Vacuum cleaner connection | 19 Adjustable handle |
| 10 Electrical connection | 20 Crane eye |

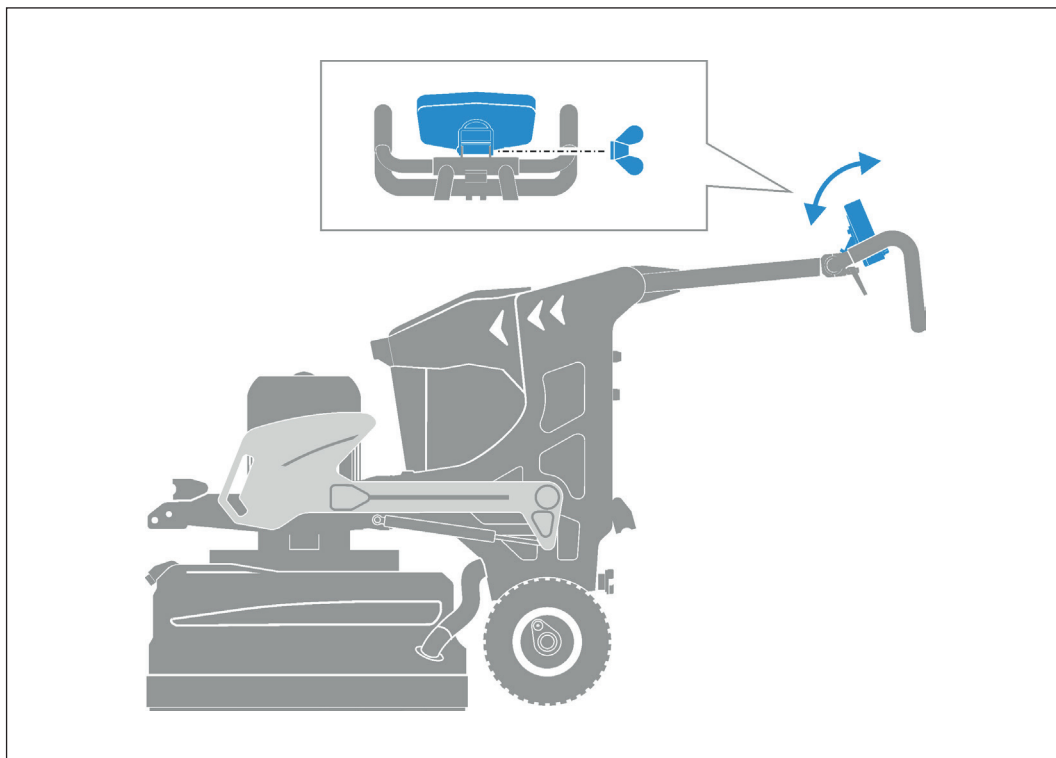
6.2.1 Control unit adjustment



Presetting

The inclination of the control unit can be adjusted individually

The clamping strength for the adjustment can be managed by means of a wing nut.



Control unit adjustment

6.2.2 Handle unit adjustment



INFORMATION

The height of the handle unit can be adjusted without tools by means of a rotating clamp handle. Make sure that the handle position is in a detent position.

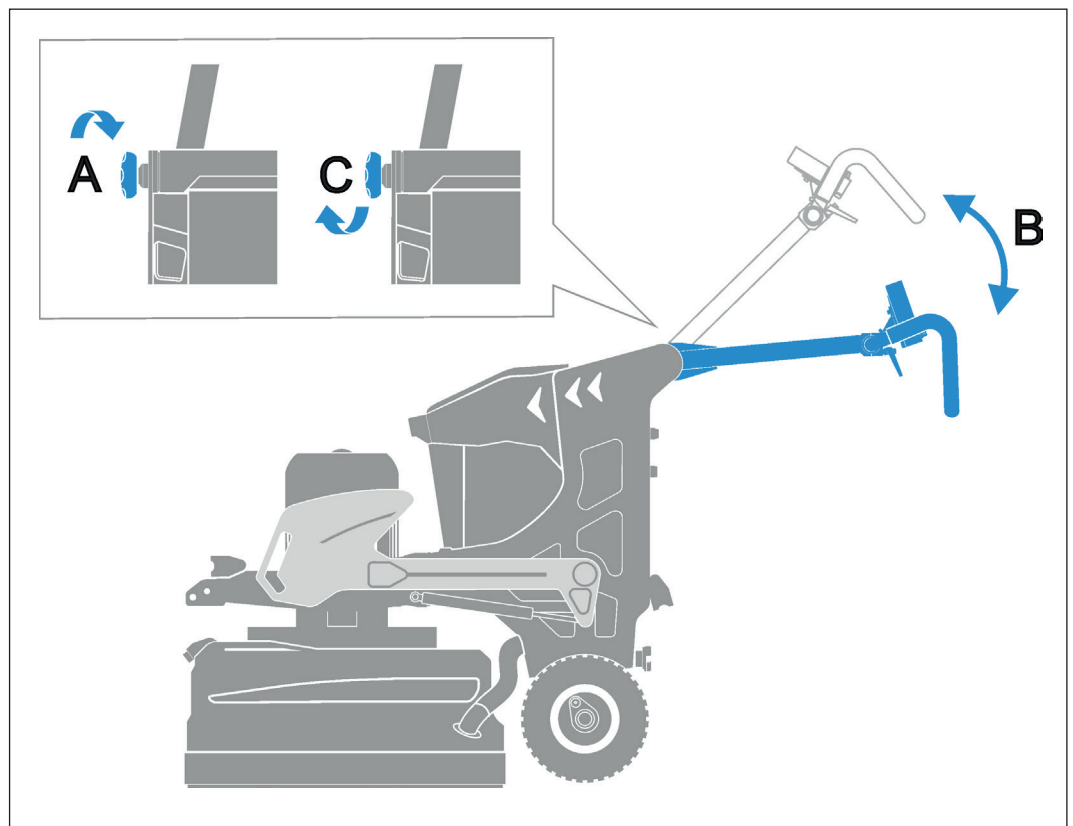


DANGER

Danger of crushing

► Use both hands to adjust the handle.

The height of the handle unit can be adjusted without tools by means of a quick-action clamping device. Make sure that the handle position is in a detent position.



Handle unit adjustment

6.2.3 Grinding pressure



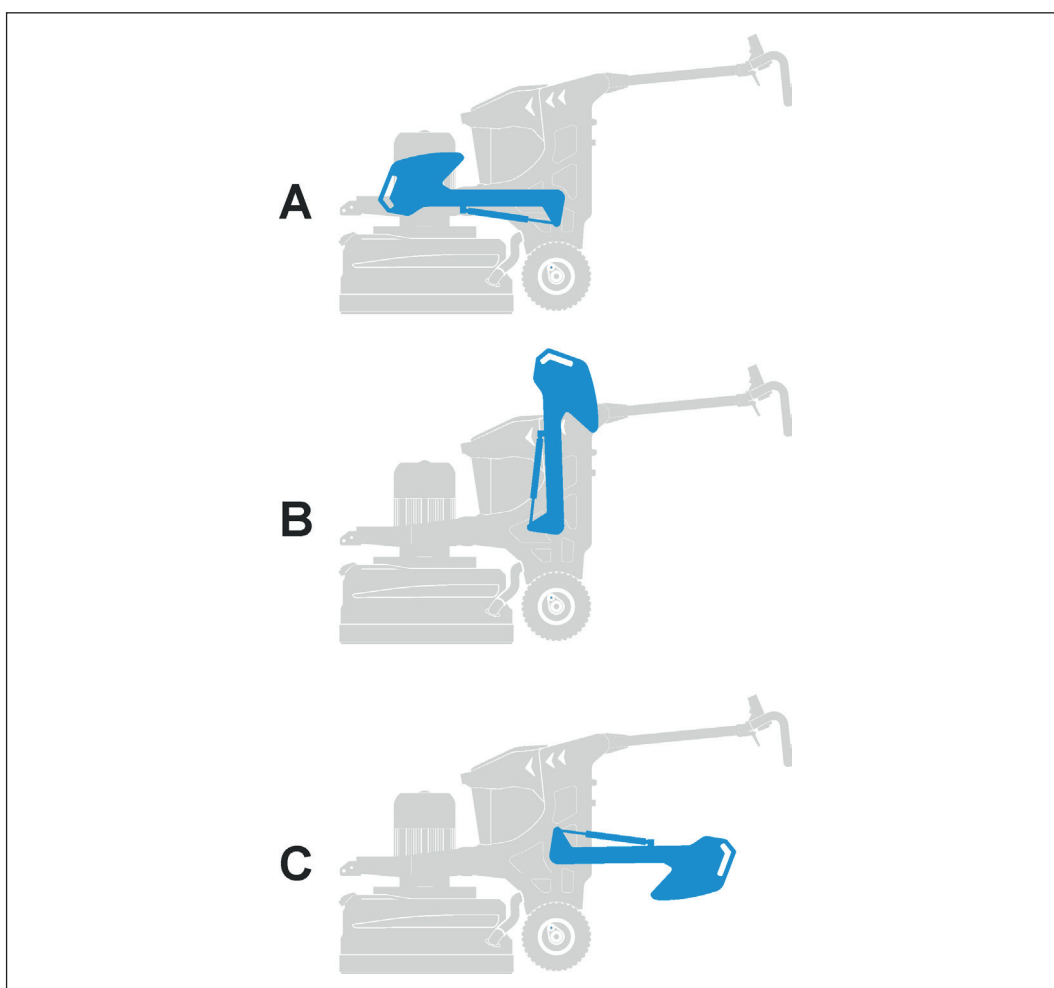
INFORMATION

The floor grinding machine can be equipped with two weights. The grinding pressure of the floor grinding machine can be changed using weights.



WARNING

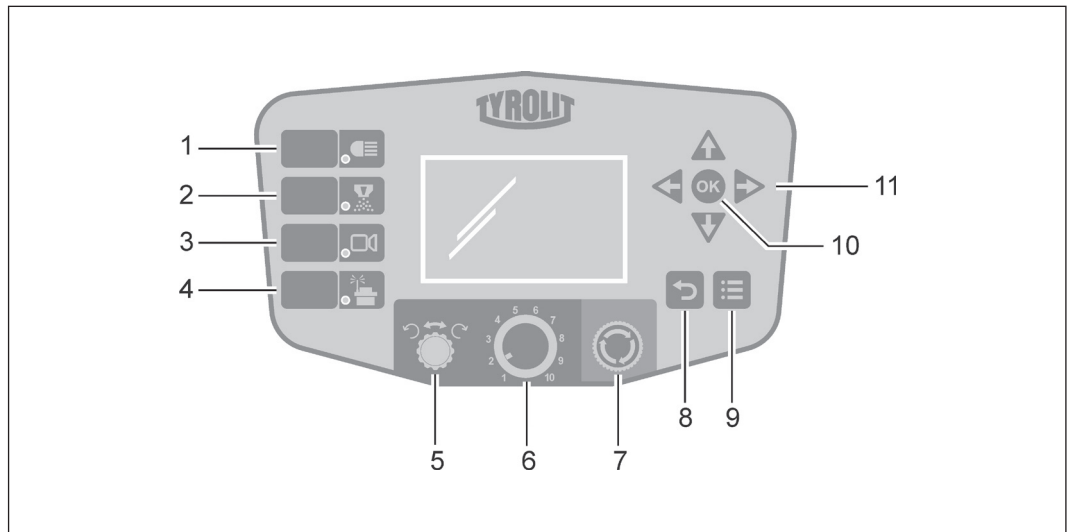
To prevent crushing, always swing the weights by the handle recesses.



Grinding pressure

Weights in different positions	
Weight position A	Max. grinding pressure
Weight position B	Medium grinding pressure
Weight position C	Minimal grinding pressure, tilt position for tool change

6.3 Control unit control panel



Control unit control panel

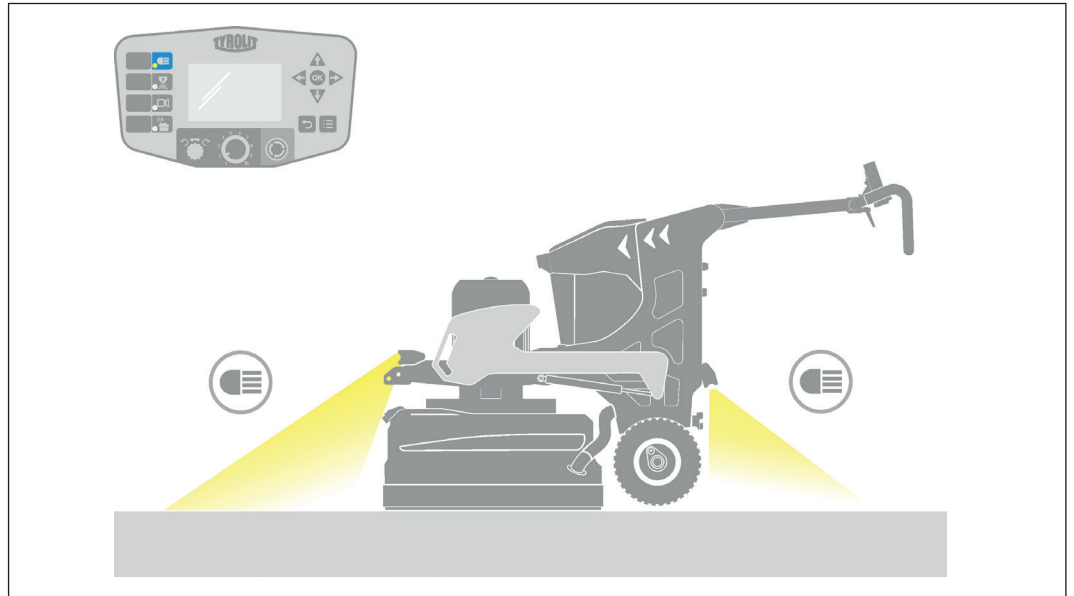
Control unit control panel FGE780			YES	NO
1		Light	X	
2		Water spray cooling system	X	
3		Camera		X
4		Remote control	X FGE780R	X FGE780S
5		Motor direction of rotation	X	
6		Grinding disc speed	X	
7		EMERGENCY STOP	X	
8		Reset key menu	X	
9		Menu	X	
10		OK-button	X	
11		Navigation buttons	X	

6.3.1 Light



INFORMATION

By pressing the light button, the front light and the rear light are switched on.



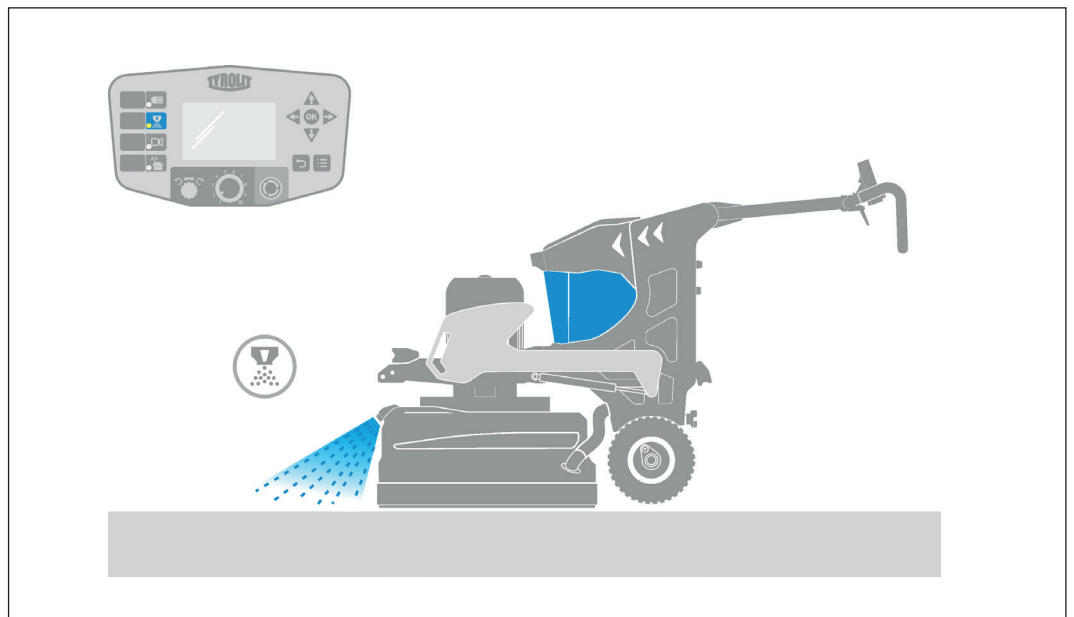
Light

6.3.2 spray cooling system



INFORMATION

The spray cooling system cools the grinding tools. The water for the spray cooling system comes from the water tank via the water pump.



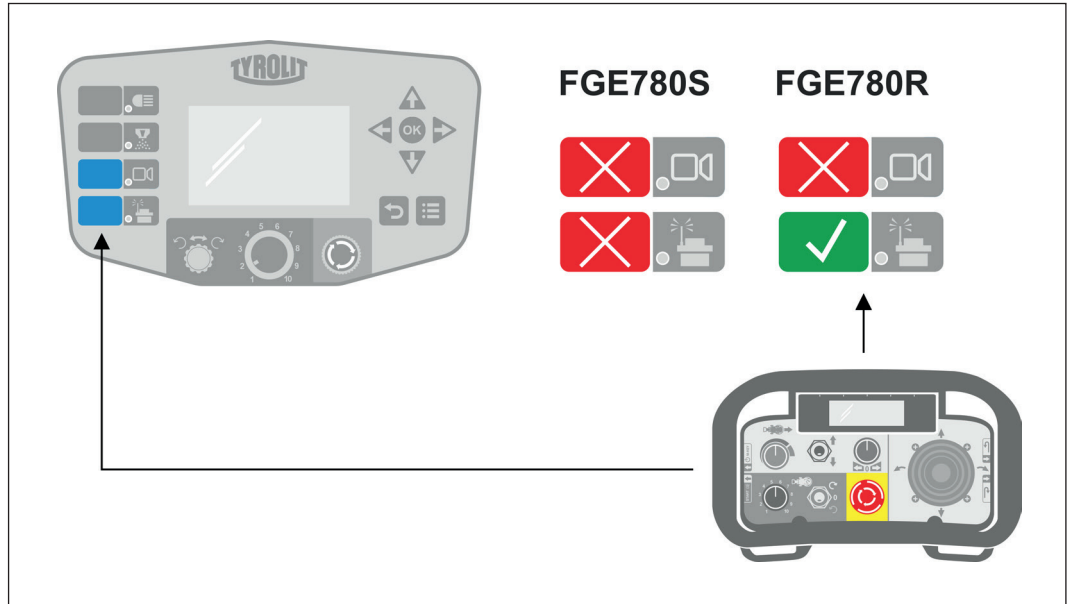
Water

6.3.3 Camera and remote control



INFORMATION

The FGE780S floor grinder does not have a camera or remote control.
The FGE780R floor grinder does not have a camera or remote control.



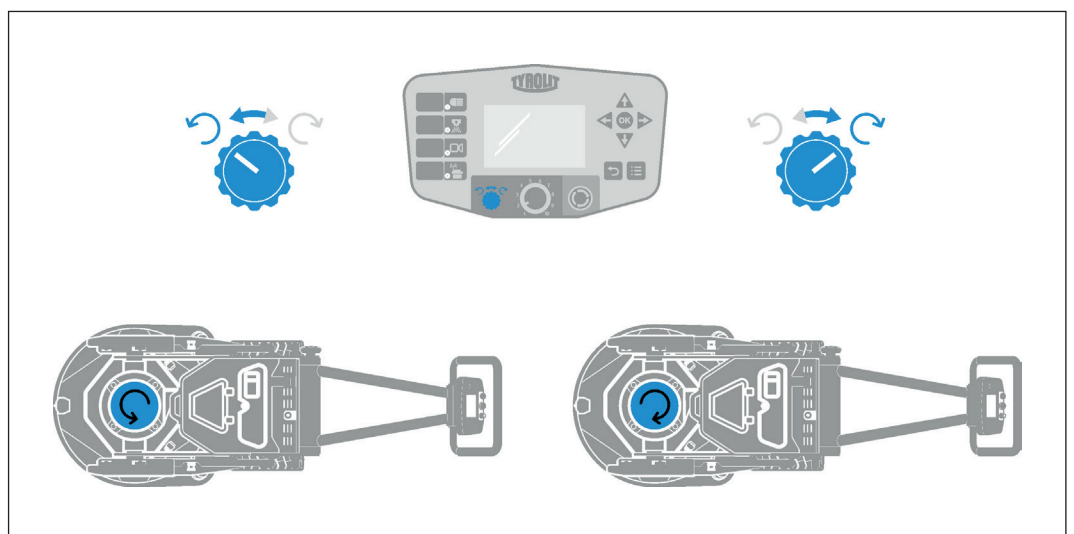
Camera and remote control

6.3.4 Motor direction of rotation



INFORMATION

The direction of rotation of the engine can be set to clockwise/anti-clockwise.



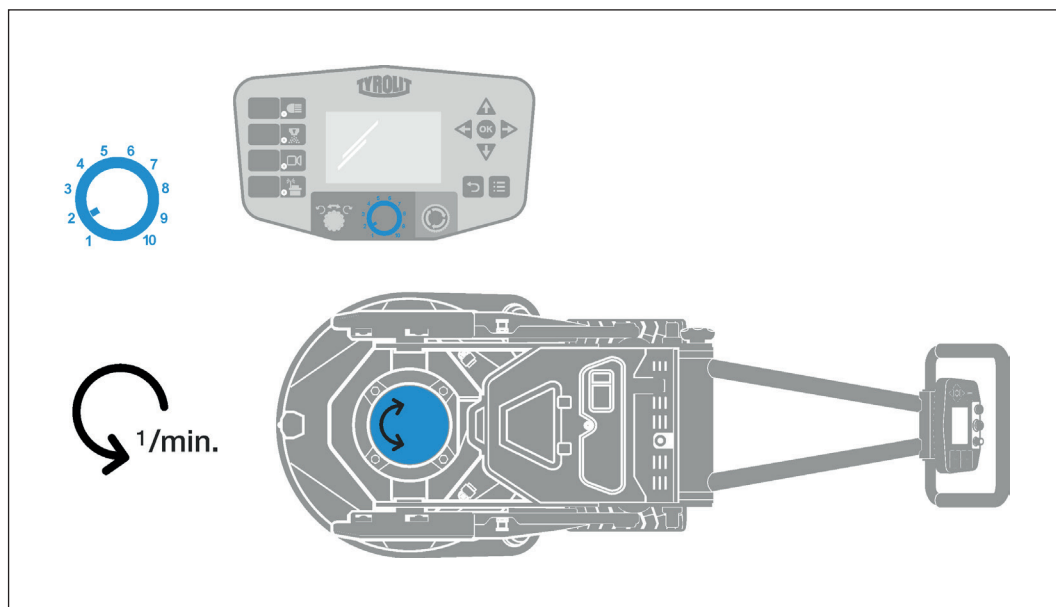
Motor direction of rotation

6.3.5 Engine speed



INFORMATION

The speed of the drive motor is set by means of a rotary switch.



Engine speed

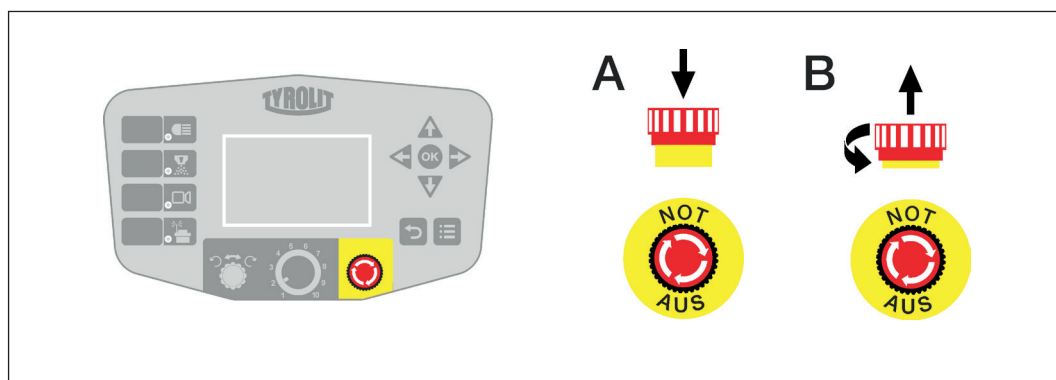
6.3.6 EMERGENCY - STOP



DANGER

What to do in an emergency

- Press the EMERGENCY STOP button.



EMERGENCY STOP

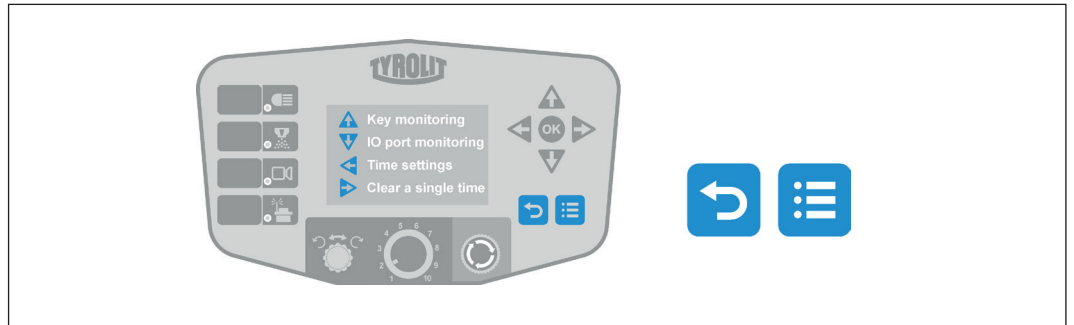
- A Activate EMERGENCY STOP
- B Deactivate EMERGENCY STOP

6.3.7 Reset and menu button



INFORMATION

The menu can be called up using the menu and backspace keys. The reset key is also used to reset error messages.



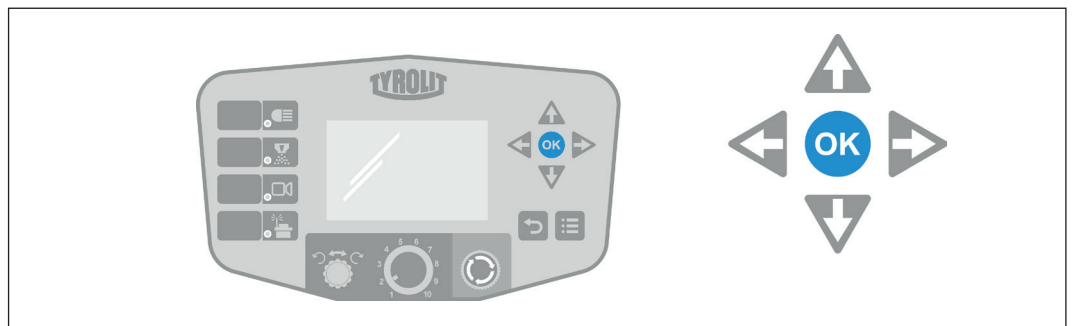
Reset and menu button

6.3.8 Confirmation key



INFORMATION

The menu entries are confirmed with the confirmation key. The OK button is also used to reset error messages.



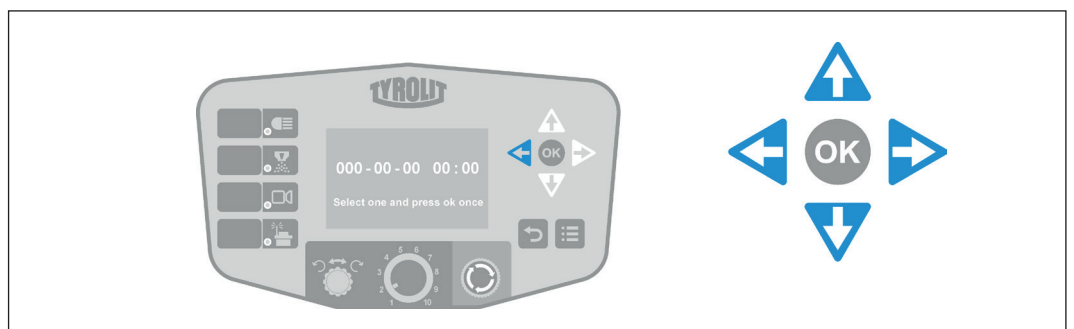
Confirmation key

6.3.9 Navigation buttons



INFORMATION

The navigation keys can be used to navigate between the menu items. Example of time setting (Time settings)



Navigation buttons

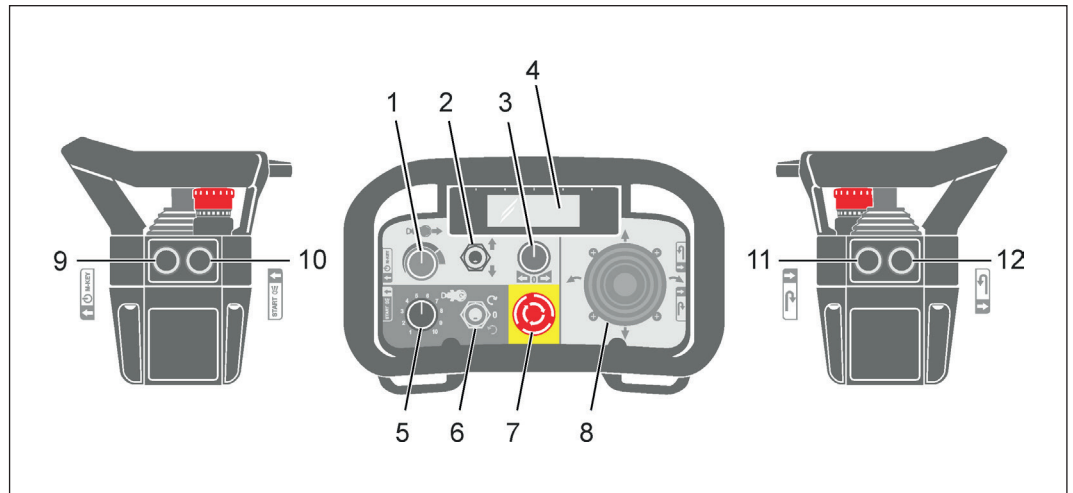
6.4 FGE780R controls

6.4.1 Remote control



INFORMATION

The remote control can be used as a radio remote control using a rechargeable battery.



Controls

- | | |
|---------------------------------------|----------------------|
| 1 Drive motor potentiometer | 7 EMERGENCY STOP |
| 2 Engine (forwards/stop/backwards) | 8 Drive joystick |
| 3 Track corrector potentiometer | 9 Key switch |
| 4 Display | 10 Light button |
| 5 Grinding head speed | 11 Right tack button |
| 6 Grinding head direction of rotation | 12 Left tack button |

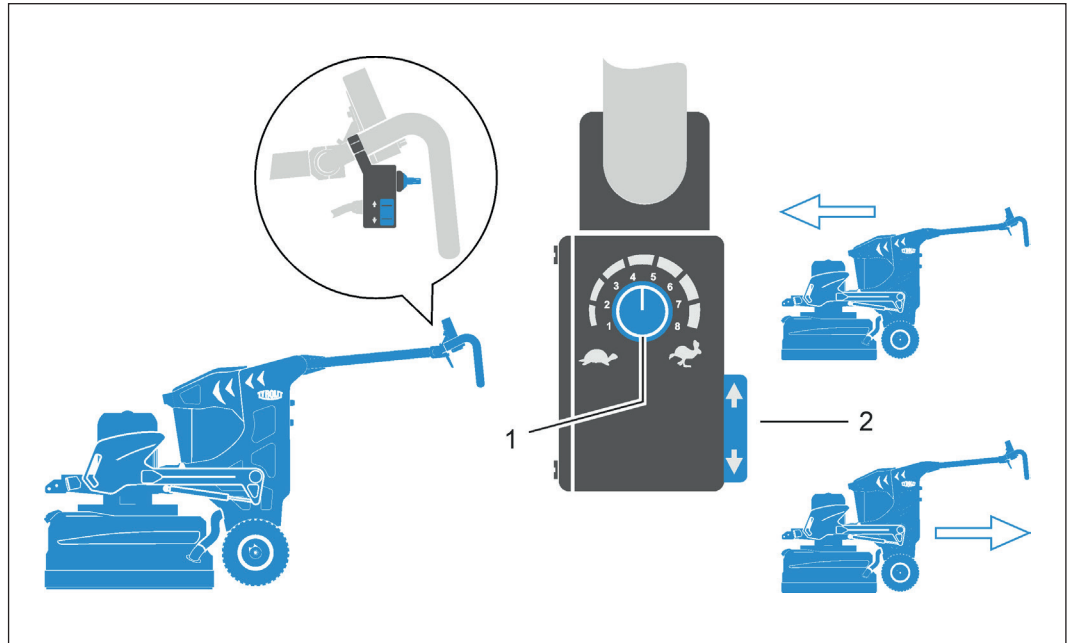
6.5 FGE780S controls

6.5.1 Control unit (manual mode)



INFORMATION

The operating unit can be used to control the direction of travel using a toggle switch (2) and the speed using a potentiometer (1).

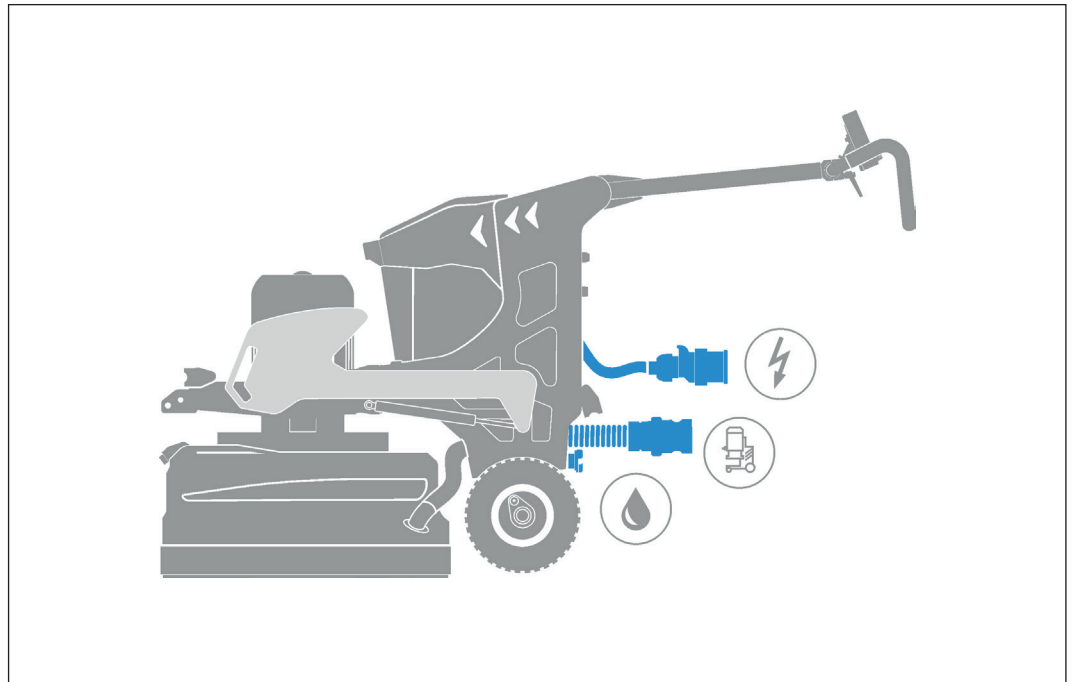


Controls




- 1 Traction engine speed
- 2 Direction of travel switch

6.6 Connections

6.6.1 Power supply



Power supply

-  Power connection
-  Vacuum cleaner connection
-  Water connection



INFORMATION

- The mains voltage must match the specifications on the type plate.
- Protect the connecting cables against heat, oil and sharp edges.
- Only use the connecting cables for their intended purpose.
- Do not use the connecting cable to pull the plug out of the socket.
- In the event of power failures:
Switch off the floor grinder and pull out the plug.

6.6.2 Extension cables



INFORMATION

- Only use approved and appropriately marked extension cables outdoors.
- Avoid the use of extension cables with multiple sockets and the simultaneous operation of several devices.

Only use extension cables that are approved for the field of application and with an adequate cable cross-section.



INFORMATION

Recommended minimum cross-sections and max. cable lengths				
Conductor cross-section mm ²	1,5	2,5	4,0	6,0
400 V	100 m	170 m	275 m	415 m

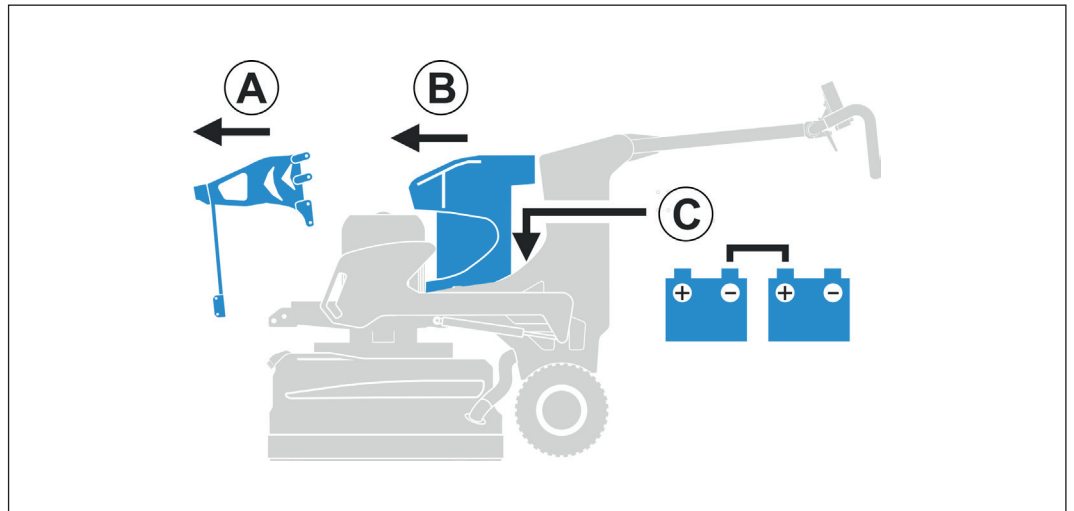
6.7 Battery



INFORMATION

The machines are delivered without a battery. Information on the batteries can be found in the chapter Technical data.

6.7.1 Battery assembly



Battery assembly

6.8 Extraction

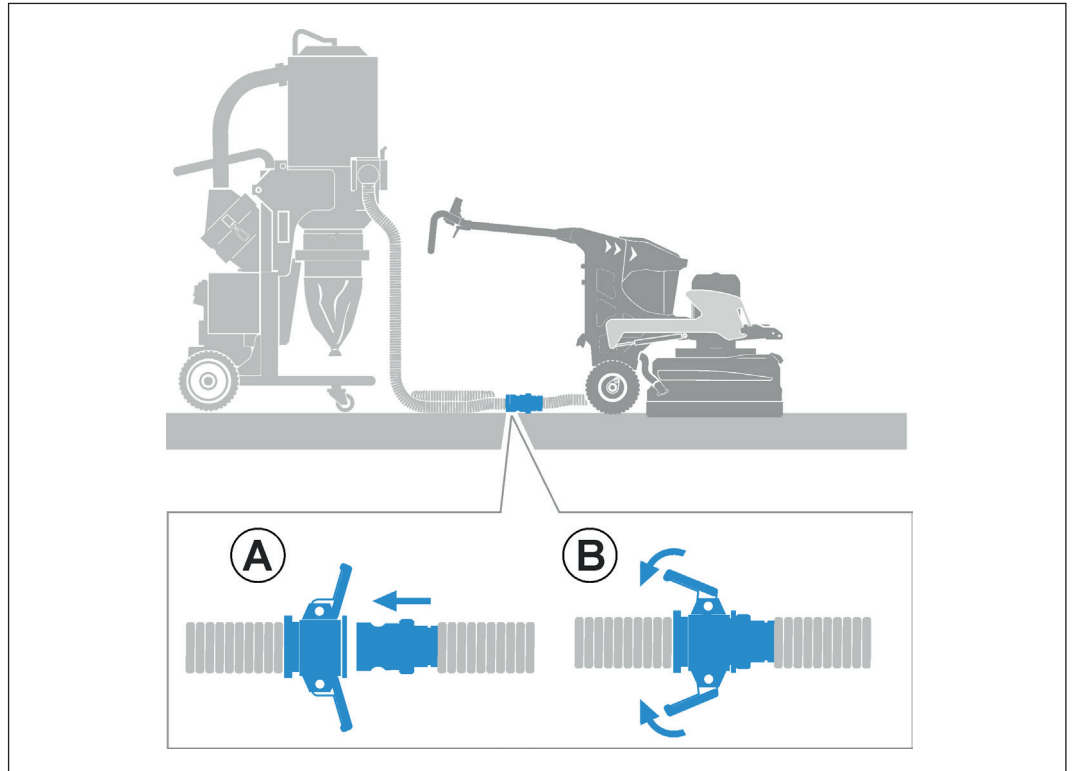
Connect the dust extractor to the grinding machine. You can find information on connections in the documentation of the different TYROLIT dust extractor models.



DANGER

Released dust particles can damage your health.

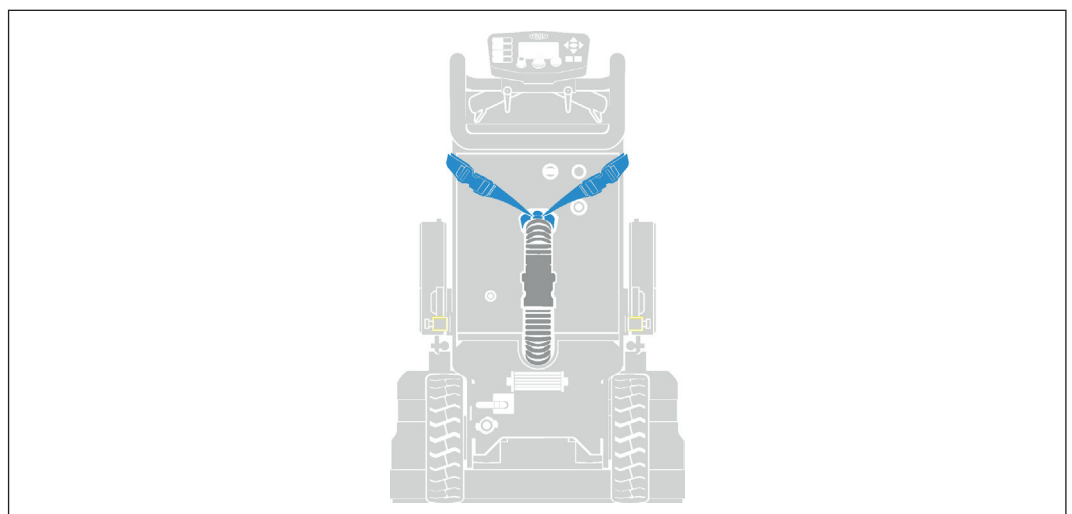
► Always work with a vacuum cleaner and a face mask.



Extraction

6.9 Cable and hose relief

There is a cable and hose relief on the back.



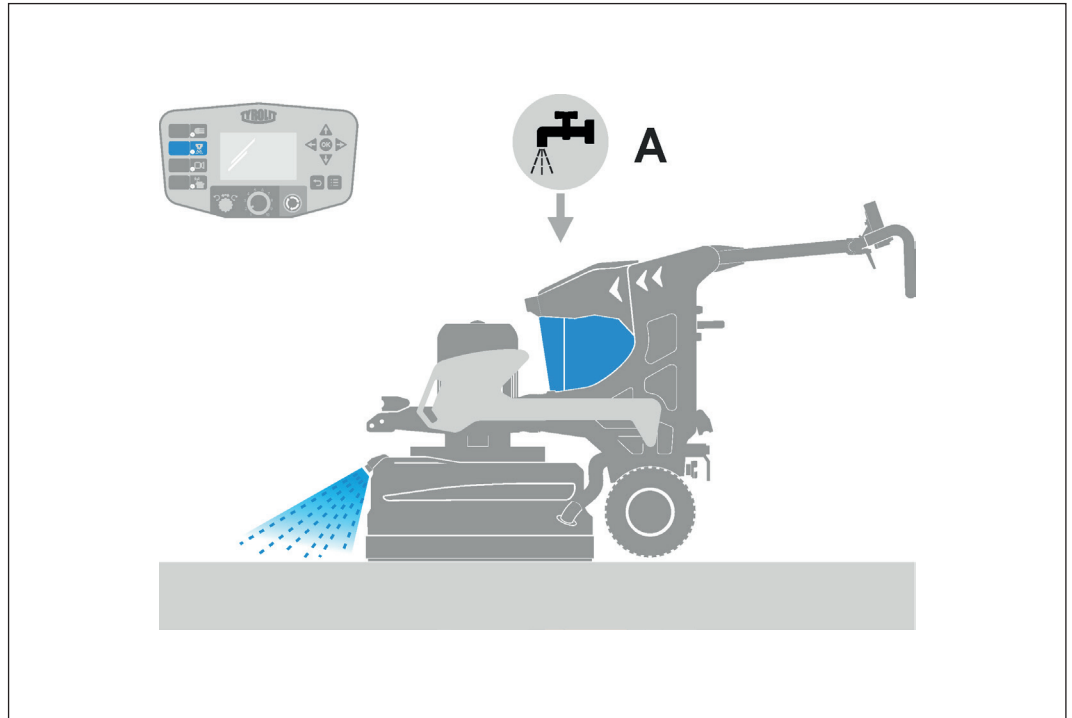
Cable and hose relief

6.10 Working with a spray cooling system



INFORMATION

The spray cooling system cools the grinding tools. The water for the spray cooling system comes from the water tank via the water pump.



Water mist

Proceed as follows:

- ✓ The machine is switched on
- ✓ The water tank is full

6.11 Wet application



INFORMATION

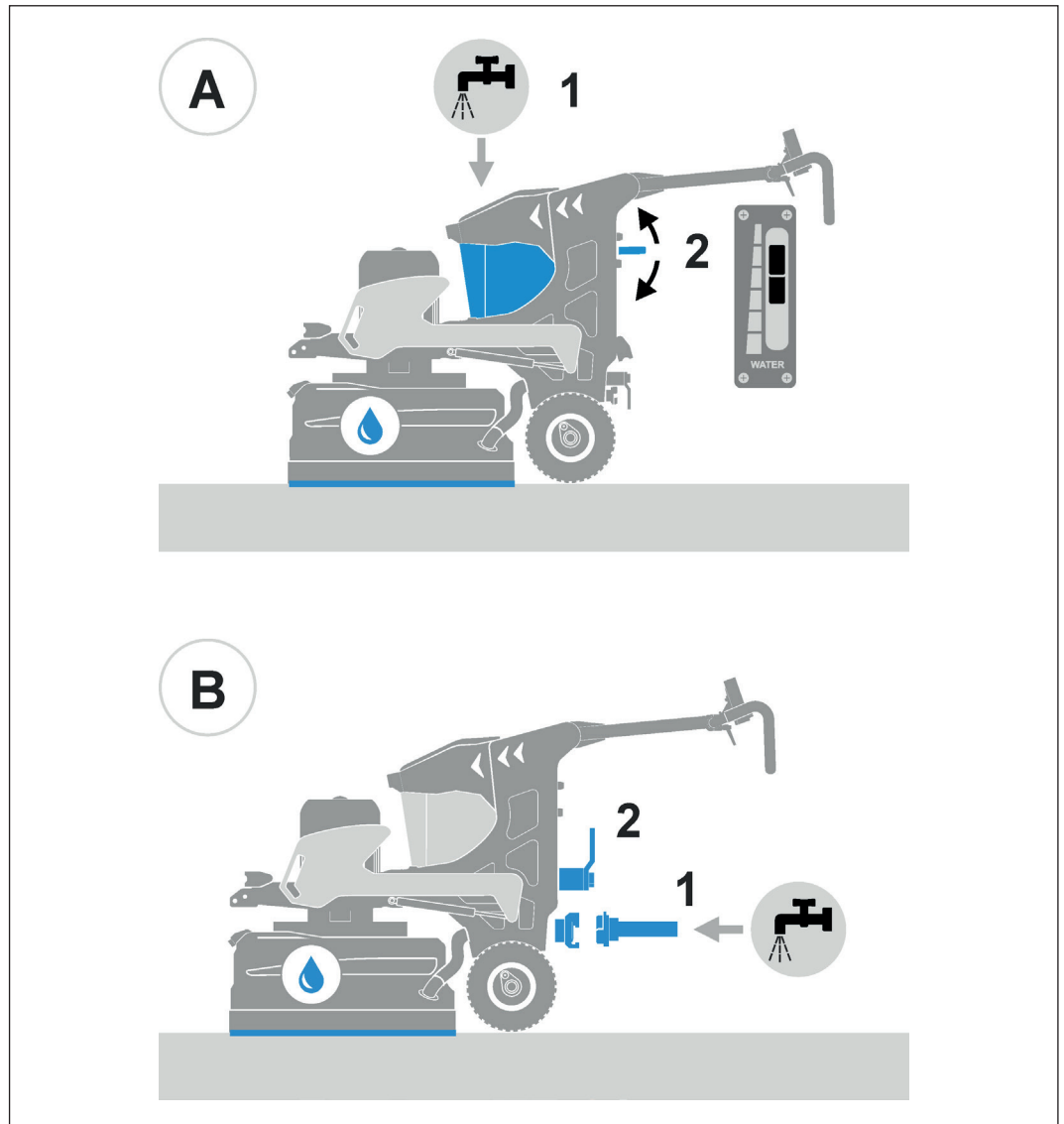
The FGE780 floor grinder can be used for wet and dry applications. Water is used when sanding challenging floors. It is also used to achieve higher material removal or lower temperatures during grinding. For wet applications, a separate water aspirator must be used.

6.11.1 Wet grinding



INFORMATION

Water from the water tank (A) or an external water source (B) can be used for wet grinding.



Wet grinding

Proceed as follows:

- ✓ The water tank (fig. A) is full or the water supply (fig. B) is ensured
- ✓ The water lever and water valve are in the OFF position.
- ✓ The machine is switched on

6.12 Starting/switching off the floor grinder



INFORMATION

You can find information on machine guidance, grinding techniques, etc. in the "Floor grinding safety manual".



DANGER

Non-compliance carries a risk of death or severe injury.

- Never work without suitable PPE.
- Always wear ear protection during work.
- Remove adjustment and assembly tools before switching on the floor grinder.
- Keep children away from the floor grinder and the work area.
- Avoid working in an unnatural posture.

The inclination of the handle can be adjusted. When using the floor grinder manually, you can adjust it to achieve the optimum position.

- Ensure that you have a secure footing and keep your balance at all times.
- Avoid physical contact with earthed surfaces such as pipes, heaters, stoves and refrigerators. There is an increased risk of electric shock if your body is earthed.

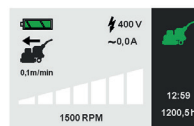
- ✓ The work environment is dry.
- ✓ The dust extractor is correctly connected to the floor grinder and the power supply.
- ✓ All operating elements of the control unit are in 0-position.
- ✓ The EMERGENCY STOP on the control unit is deactivated

6.12.1 Starting procedure FGE780S

A



B



Proceed as follows:

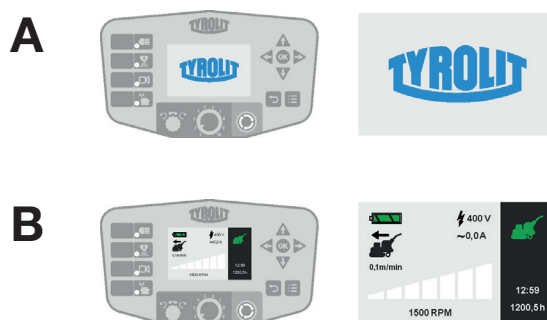
- ▶ Start the machine by connecting the floor grinder to the power source. The machine is switched off when disconnected from the power source.



INFORMATION

The TYROLIT logo (A) appears on the display of the control unit and then the start screen (B) changes. The floor grinder is ready to start.

6.12.2 Starting procedure FGE780R



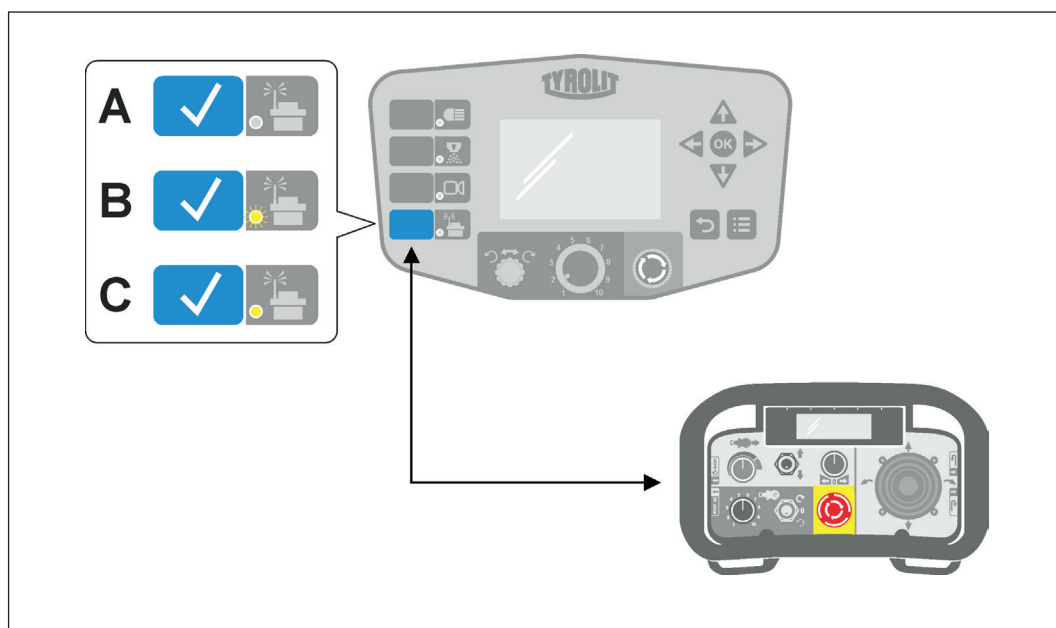
Proceed as follows:



INFORMATION

The TYROLIT logo (A) appears on the display of the control unit and then the start screen (B) changes. The floor grinder is ready to start. To activate the remote control, press the remote control button on the control unit.

Activate remote control



Activate remote control

A	○	Display does not light up	The control unit and remote control are not connected.
B	☀	Display flashes	Connection between control unit and remote control is established.
C	●	Display illuminates	The control unit and remote control are connected.

6.13 Transport

6.13.1 Transport with transport wheel



INFORMATION

The transport wheel allows the floor grinder to be moved when switched off. The transport wheel can be mounted without tools.



Transport with transport wheel

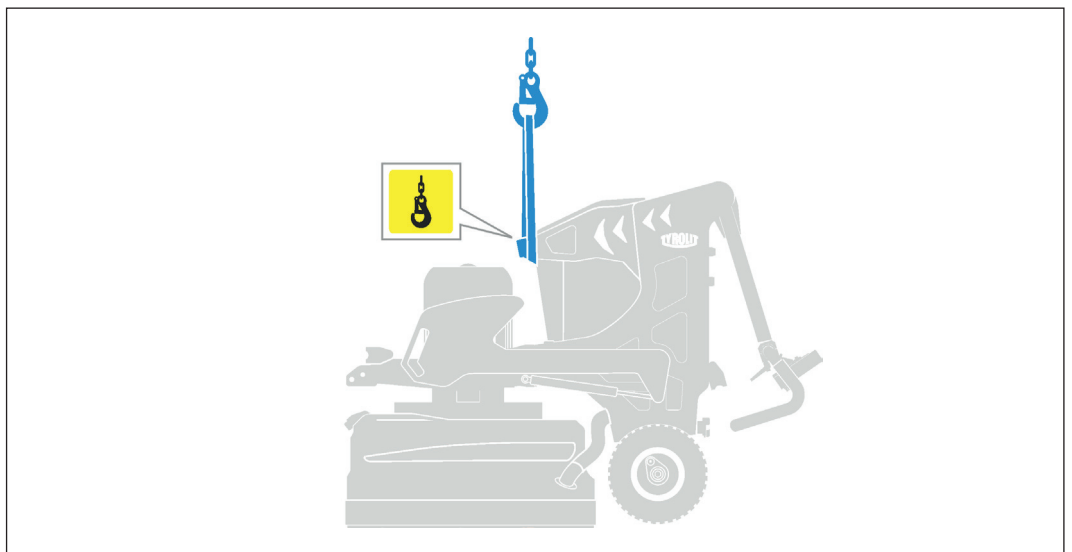
6.13.2 Crane transport



DANGER

Danger from falling parts.

When transporting by crane, only parts that are firmly connected to the machine may be transported. Failure to comply with this regulation may result in severe injuries to body parts, possibly with fatal consequences, as well as damage to property.



Crane transport

6.13.3 Move machine



INFORMATION

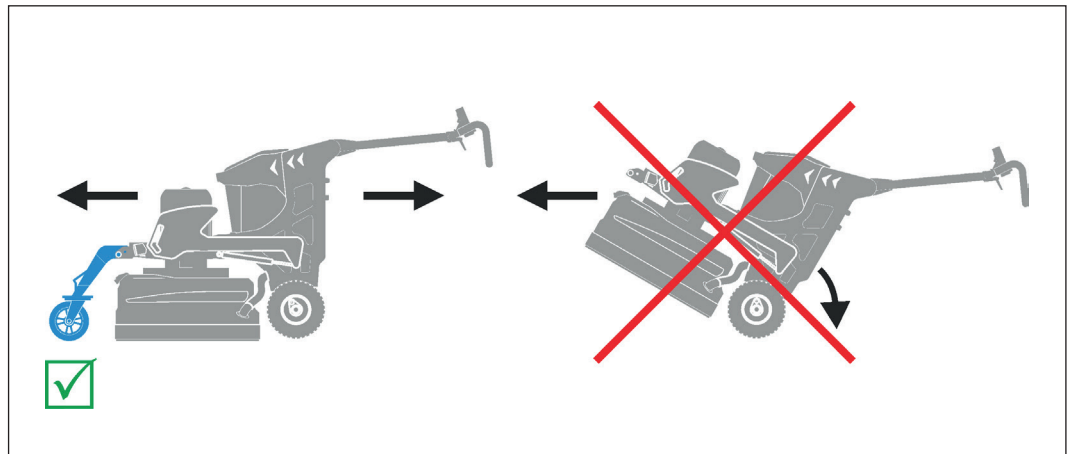
The transport wheel must be fitted to move the machine.



DANGER

Risk of crushing/pinching.

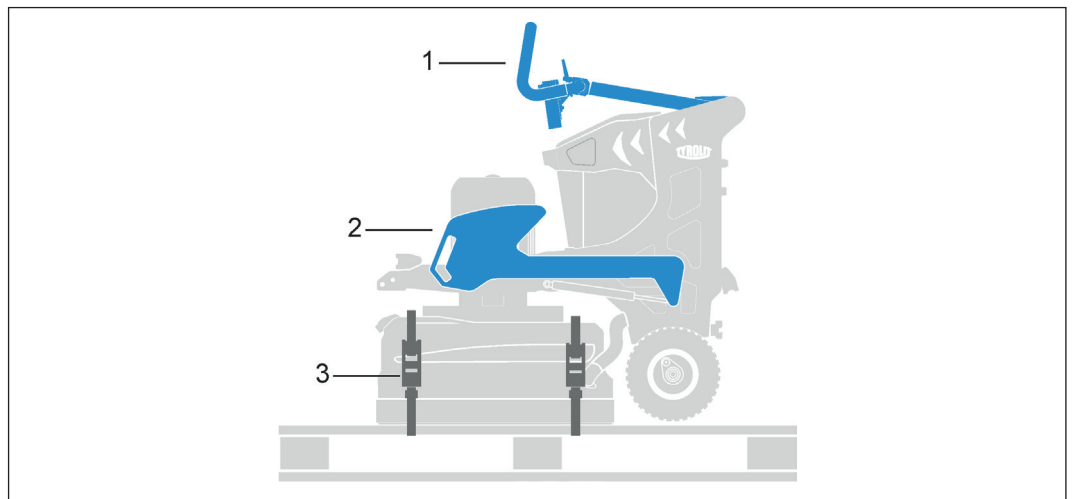
The machine must not be transported on the rear axle in automated feed mode.



Move machine

6.13.4 Transport with solid base surface (e.g. pallet)

- The machine must be firmly connected to the surface.
- The grinding head must rest on the base surface.
- Fastening elements such as tension belts must be attached to non-moving parts.
- The weights must be secured



Transport with solid base

- 1 Handle unit position
- 2 Position of secured weights
- 3 Clamping set

7 Servicing and maintenance

7.1 Maintenance table



INFORMATION

Always pull out the mains plug before starting maintenance or repair work.

Servicing and maintenance table							
		Every time before putting into operation	After the end of work	Weekly	Yearly	If problems occur	If damage occurs
Drive motor	▶ Retighten loose screws	X				X	X
	▶ Check for damage ▶ Check cleanliness		X			X	X
Cables, plugs and connectors	▶ Check for damage ▶ Check cleanliness	X	X			X	X
EMERGENCY - STOP	▶ Check emergency cut-out function	X	X			X	X
Grinding tools	▶ Check for damage ▶ Check cleanliness		X			X	X
Service	▶ Have servicing work performed by TYROLIT Hydrostress AG or an authorised representative	After 1000 hours					

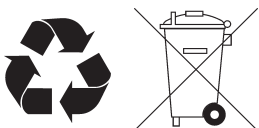
7.2 High-pressure cleaning



Caution

Cleaning with high-pressure cleaning systems can damage the floor grinder. Products containing solvents can damage the floor grinder and cable.

7.3 Recycling waste materials



TYROLIT Hydrostress floor grinders are manufactured using a high proportion of recyclable materials. Proper material separation is a prerequisite for recycling. In many countries, Tyrolit has already set up arrangements for returning your old equipment for recycling. Ask Tyrolit Customer Service or your sales advisor.

8 Troubleshooting

8.1 Troubleshooting table



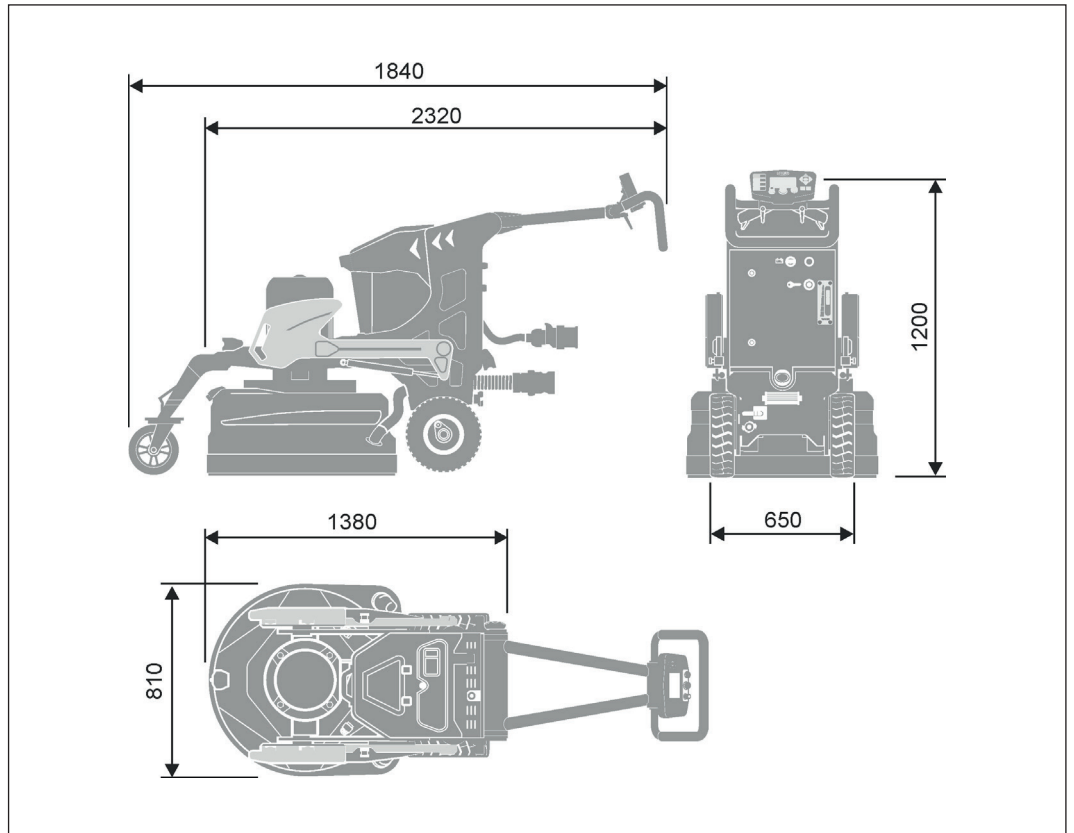
INFORMATION

If a self-shutdown occurs due to an error and a restart is not possible, the error information can help.

Troubleshooting		
Problem	Possible cause	Remedy
The floor grinder does not run even though the mains cable is connected	EMERGENCY STOP is active	▶ Deactivate EMERGENCY STOP
	Mains cable is faulty	▶ Replace the mains cable
	Connector is faulty	▶ Check the connector
	No voltage at the power supply (construction site)	▶ Check the power supply
The floor grinder starts up then switches off again	Grinding speed is too high	▶ Reduce the speed
	Mains cable is faulty	▶ Replace the mains cable
	A fuse blows on the construction site power supply	▶ Check the fuse and adapt if necessary ▶ Change the power supply if necessary
No power even though the control is running	Incorrect voltage Main motor is faulty	▶ Inform TYROLIT Customer Service
The floor grinder switches off abruptly	Overvoltage or undervoltage	▶ Check the power supply
	Connector is faulty	▶ Check the connector ▶ Check the power supply
The floor grinder does not run smoothly	Tool shoe loose	▶ Check tool shoe
	Tool is worn	▶ Check tools for wear
	Loose screws in the chassis	▶ Tighten the screws
Tools wear unevenly (more than 3 mm difference)	A tool holder is loose or faulty	▶ Tool holders must be inspected
The floor grinder comes to a stop Excessive load	Excessive grinding pressure	▶ Reduce the grinding pressure ▶ Floor covering is too tough
	Wrong tool	▶ Check the tools
Temperatures too high	Excessive grinding pressure	▶ Reduce the grinding pressure
	Grinding speed is too high	▶ Reduce the speed

9 Technical data

9.1 Dimensions



Dimensions in mm

9.2 Weights

Floor grinder	FGE780 S3/R3	FGE780 S4/R4
Weight	550 kg	567 kg

9.3 Noise emissions

Noise data acc. to ISO 3744	
Parameter	Value
Noise pressure level L_{pA}	84.0 dB (A)*
Sound power level L_{WA}	90.5 dB (A)*
Uncertainty K_{WA}	2.5 dB (A)

Test conditions:

* Full motor speed without grinding

9.4 Machine data

Floor grinder	FGE780S3/R3	FGE780S4/R4
Nominal power	15 kW, 3-phase	
Frequency	400VAC/50Hz	
Voltage	3x380 - 480 three-phase	
Internal control voltage	24 VDC	
Nominal current	28 A	
Grinding disc speed	1/min	
Grinding width	780 mm	
Motor cooling	Air	
Grinding head	Gear planetary gearbox	
Grinding disc	3xØ290 mm/4xØ290 mm	
Max. number of grinding shoes	3x6 pieces/4x6 pieces	
Use	Dry/wet	
Electronic overload cut-out	YES	
Mechanical overload cut-out	No	
Thermal overload cut-out	YES	
Power display	YES	
Service indicator	YES	
Protection class	IP 55	
Operating temperature	-10 to +40°C	
Storage temperature	-20 to +60°C	
Vacuum connection	mm	
Front grinding pressure weight	346 kg	353 kg
Middle grinding pressure weight	271 kg	288 kg
Grinding pressure of rear weights	201 kg	222 kg

9.5 Batteries

Battery for remote control		Battery machine	
Battery	Li-Ion	Battery	Lead acid
Model	LPM02	Standard	IEC 61056
Voltage	7,4V	Voltage	12V
Capacity	1400mAh	Capacity	22 Ah
Dimensions	76x52x14 mm	Connections	Screw terminal M5
		Dimensions	181 x 76.2 x 167 mm

9.6 Fluids and lubricants

Fluids and lubricants	
Parameter	Value
Transmission oil	Klüber GEM 4 N (TYROLIT no. 11002117/500ml)

9.7 Water

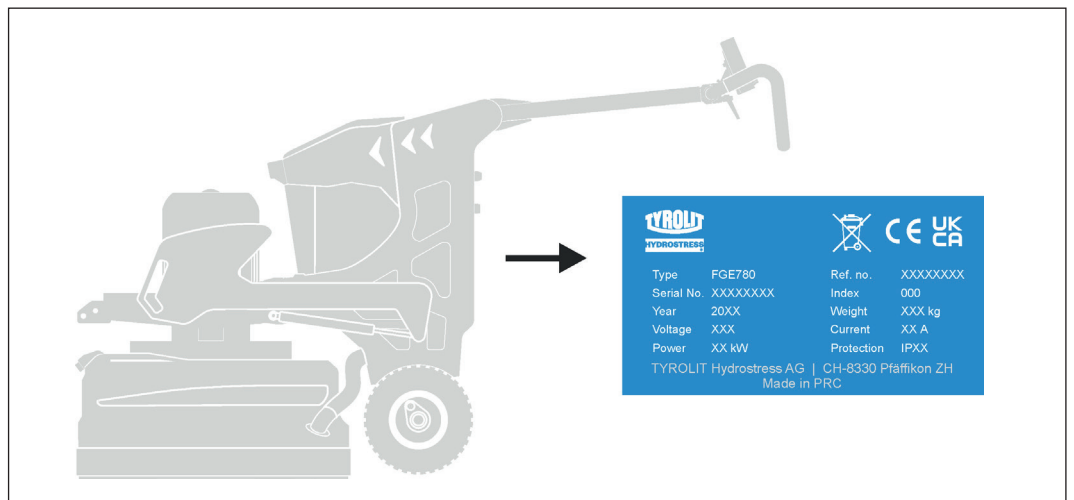
Water	
Parameter	Value
Water tank	11 litres
Water connection	2 to 6 bar

9.8 Vibrations

Vibrations (EN ISO 5349)	
Parameter	Handle
Whole-body vibration a_{hv}	$\leq 2.5 \text{ m/s}^2$
Uncertainty K	1.5 m/s^2

9.9 Type plate

The type designation and serial number are marked on the type plate of your floor grinder.



Type plate

10 EC Declaration of Conformity

Designation	Floor grinder
Type designation	FGE780

We declare under our sole responsibility that this product complies with the following directives and standards:

Applicable directives

2006/42/EC from 17 May 2006
2014/30/EC from 26 February 2014

Applicable standards

EN ISO 12100:2010
EN 60335-1:2012+...+A14:2019
EN 60335-2-72:2012
EN IEC 61000-6-2:2019
EN IEC 61000-6-4:2019

Pfäffikon, 28.03.2024

Reto Schaffner
Managing Director Technology



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