HTG-250 Ultra



CE

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This user manual was prepared by HTG Europe GmbH. It was compiled to the best of our knowledge, and any changes to the original version are listed here.

If you notice any errors or ambiguities, please let us know. We also welcome any comments or suggestions.

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Keep this operating manual handy near the machine. It must be included with the

machine if it is sold.

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2 Notes on reading

2.1 Users of the operating instructions

Chapter	Operator	Qualified personnel	Operators	Support staff
Safety	x	x	x	x
Product Description		x	x	
Shipping		x		
Installation		x		
Commissioning		x		
Operation and Use	x	x	x	x
Troubleshooting		x	x	
Maintenance	x	x		
Decommissioning		x		

→ For more information, please contact your local dealer.

2.2 Abbreviations, Synonyms, Symbols

Abbreviation/ Synonym	Meaning
PPE	Personal protective equipment
Machine	Floor Grinder HIGH TECH GRINDING 250 Ultra

Symbol	Meaning
→	Instruction to take action or to read a section in this document
●	List, main points
○	Bulleted list, subpoints
	Invitation to read additional documents
Italics	Name of a document, a key, a button, a switch
	This text provides additional information that is .

2.3 Safety-related information

2.3.1 Overview

The safety-related information explains the hazards associated with the machine and how you can avoid them.

You will find this information primarily:

- As safety instructions and pictograms in the Safety chapter
- As warning notices for imminent hazards
- As pictograms and warning text on the labels on the machine and the packaging

2.3.2 Safety Chapter

In this chapter, you will find general safety-related information on how to avoid hazards associated with the machine. The information is intended to promote your awareness of safe behavior. The goal is to provide a basis for training and instruction.

Compliance with the safety instructions protects personnel, living beings, and the environment

from harm. This chapter uses the following safety symbols:

Safety symbol	Meaning
	Warning of dangerous electrical voltage

2.3.3 Warnings

Meaning

This operating manual contains warning notices in several chapters. A warning notice alerts you to an imminent danger. It must be understood in the context of the situation in which the warning notice is given. The goal is to prevent accidents and damage during a specific procedure.

Signal words

Signal word	Risk level of the Hazard	Meaning
⚠ **DANGER**	High	Death or serious bodily injury may if the hazard is not avoided.
⚠ **WARNING**	Indicates	Death or serious injury may occur if the hazard is not avoided.

⚠ **CAUTION**	Low	Minor or moderate injury may occur if the hazard is not avoided.
CAUTION	-	Damage with significant financial consequences to the product or other property is possible.

Presentation

Warnings are presented in the operating instructions as follows:

Variant 1:

➢ **DANGER** This warning text identifies the source of the hazard and the scope of its impact. This warning text describes the consequences.

→ This instruction specifies the corrective action to take to prevent the hazard.

The warning:

- appears in the running text or at the beginning of a step-by-step guide.
- applies to the following text passage or the entire step-by-step instruction

Variation 2:

1. Step 1
   DANGER This warning text identifies the source of the hazard and the scope of its applicability. This warning text describes the consequences.
2. Step 2: This instruction specifies the corrective action to prevent
3. Step 3

The warning:

- precedes an action involving an imminent danger.
- applies to this action.

2.4 Third-Party Documents

In addition to this operating manual, documentation from third-party suppliers must be observed.

The third-party documents contain safety-related information. This information is not repeated in this original operating manual.
If hazards to the machine as a whole have been identified in the third-party documents, these have been taken into account in the risk assessment.

3 Safety

3.1 Intended Use

The machine was placed on the market by HTG Europe GmbH. The machine is intended for use in workshops and similar businesses.

The machine is intended exclusively for:

- dry grinding,
- wet grinding,
- polishing, and
- processing

mineral floor surfaces. Mineral floor surfaces include concrete, screeds, natural stone, terrazzo, and similar materials.

The machine is used for:

- surface preparation,
- smoothing, or
- polishing

in industrial, commercial, and construction applications. The machine may only be

operated:

- with suitable tools and genuine HTG accessories,
- In technically sound condition.

The machine is used:

- inside buildings
- in dry outdoor areas – When used outdoors, ensure that the machine is protected from moisture, wetness, and direct exposure to the elements.

The machine is built in accordance with the state of the art and recognized safety regulations.

However, improper or unintended use of the machine may result in danger to the life and limb of the user or third parties, or cause damage to the machine and other property.

Intended use includes observing these operating instructions as well as the operating instructions of the suppliers and complying with the suppliers' inspection and maintenance requirements.

The manufacturer is not liable for non-compliance or for any resulting damage. The operator bears the risk.

If malfunctions occur during operation:

- ➢ Shut down the machine immediately.
- ➢ Notify qualified personnel or the dealer.

Reasonably foreseeable misuse

The situations listed in this section are prohibited.
Any use other than that described in this operating manual is considered foreseeable misuse. This includes:

- Provision and use in the consumer sector.
- Storing and parking the machine under conditions that allow unauthorized persons and persons under the age of 18 to access and use the machine.
- Use:
  - in rain, lightning, dense fog, strong winds, or other adverse conditions.
  - If electronic components have become wet.
  - Near explosive or flammable materials, or steam, dust, solvents, thinners, or other flammable substances.
- Continuous operation for more than 5 hours at a time.

  The actual operating time depends on the operating conditions and may be shorter. In the event of:
  - Signs of overload,
  - Error messages
  - ➢ Immediately shut down and allow to cool.
- Operation without guards,
- mechanical or electrical bypassing of the machine or machine parts,
- the use of parts other than original parts or parts that do not meet the specifications of the replaced part,
- Modifications, alterations, and tampering,
- Use for processing materials other than those intended. These include:
  - PVC,
  - linoleum,
  - vinyl,
  - rubber,
  - carpet,
  - rubber,
  - cork,
  - Tiles,
  - Metal floors,
  - Loose, damaged, or hollow floors.

- Failure to follow the instructions and prescribed operating, maintenance, and servicing conditions,
- failure to comply with the regulations and provisions in the country of use and with the legal provisions and accident prevention regulations regarding the handling of the machine,
- Operating the machine outside the technical specifications.

3.2 Legal Provisions

3.2.1 Modifications

Modifications can create new hazards on the machine. Serious personal injury is possible.

- ➢ Do not make any modifications to the machine.
- ➢ Do not put machines that have been tampered with by third parties into operation.

During maintenance work, only original spare parts or spare parts that meet the specifications of the original spare parts may be used. The use of other parts may result in the manufacturer's liability being voided. Liability then passes to the converter or operator.

3.2.2 Applicable Directives

See EC Declaration of Conformity.

3.2.3 Sales Outside the European Economic Area

The manufacturer assumes no liability in the event of the machine being sold to the non-European Economic Area. The machine is designed, built, and documented exclusively for the European Economic Area.

If the machine is resold outside the European Economic Area, the seller is responsible for complying with all legal requirements of the respective economic area or country.

3.3 Safety Instructions

The safety instructions are sorted by their scope of application.

3.3.1 By source of hazard

Apply to the entire machine throughout its entire service life

Energy



Electrical energy

The machine is connected to a 230 V supply voltage. Touching live parts will result in a fatal electric shock.

- Repairs must only be performed by qualified personnel.
- Before working on the machine, unplug the power cord and secure it to prevent it from being plugged back in.
- Check the power cord and plug for damage before connecting.
- Replace damaged cables immediately.
- Lock the control box after finishing the work and remove the key.

Substances, Materials

Dust

Respirable dust is generated during grinding. Respiratory diseases are possible.

- Wear respiratory protection:
  - Respirator with an FFP2 filter.
  - For dust containing quartz or cement, use FFP3.
- Regularly check the operator's health.

Noise

Entire machine

The machine operates at a harmful noise level during grinding. Severe hearing damage is possible.

- Hearing protection must be worn.

Fire, Blaze, Explosion

Overheating

The control box is equipped with a ventilation grille. The ventilation is designed to prevent overheating inside the control box. If the ventilation grilles are blocked or dirty, heat will build up inside the control box. Cable insulation may melt. Fires may occur.
Smoke inhalation and burns are possible.

- Keep ventilation grilles open and clean.
- Replace defective ventilation devices immediately.

Aging, Wear

Unnoticed wear

The machine is subject to aging. The components were designed to withstand the expected loads. Nevertheless, they age and wear out. Components may fail sooner than expected. If aging, wear, and defective parts go unnoticed, serious injuries can result.

- Follow the maintenance schedule.

- Perform regular visual inspections.

Labeling of control and display elements

The control and display elements are labeled. This prevents incorrect operation. Warning labels and pictograms are affixed to the machine. Missing labels and pictograms can lead to personal injury and damage to the machine.

- Keep control and adjustment elements, as well as labels and pictograms, clean.
- Replace damaged labels and pictograms.

Structural integrity

Slopes

Stability and safe movement may be limited on slopes. On steep slopes, safety is no longer guaranteed. The machine may tip over or slide.

3.3.2 By life cycle phase

Applies to the entire machine during specific life phases

Transport

Lifting and securing the machine

The handle, frame, and other machine parts are designed to withstand the forces encountered during operation. They cannot withstand the forces generated when lifting the machine. Machine:

- Do not lift by the handle, frame, or other machine parts.
- Lift at the lifting points.
- Use a crane or forklift to place the machine on a pallet or skid frame and secure it to prevent it from falling.

The tool holders and other machine parts are very sensitive to mechanical damage. Tool holders can be completely destroyed.

- Do not drive the forklift under the tool holders.

PPE

For transport, the machine must be attached to lifting equipment. During these operations, hands can be crushed or scraped. Suspended loads can swing. Carelessness can result in the head being struck. Loads can fall or be set down inaccurately. Serious injuries to the feet and toes are possible.

- Wear a safety helmet.
- Wear work gloves.
- Wear safety shoes.
- Never stand under suspended loads.

Lifting Equipment and Transport Vehicles

Lifting equipment that is undersized or the use of unsuitable attachment points can cause loads to tip over or the lifting equipment to break.

- Use lifting equipment of sufficient capacity.
- Secure lifting equipment to the attachment points and lift.

Transport operations may only be performed by qualified personnel in accordance with the safety instructions

- Follow the safety regulations for transport.
- Provide an escort for safety purposes during transport on open factory grounds.

Load-bearing equipment and lifting slings must comply with accident prevention regulations.

- Use only tested and approved lifting equipment:
  - Shackles in accordance with DIN 82101
  - Lifting chains in accordance with DIN EN 818-2, Grade 8
  - Lifting slings in accordance with DIN EN 13414-1
  - Textile lifting slings (round slings) in accordance with DIN EN 1492

Loading transport vehicles

Undersized transport vehicles can be overloaded by the load. Machine parts may protrude beyond the outer dimensions of the transport vehicle. Operational and roadworthiness may be compromised. These issues may not be immediately apparent and may only become apparent during transport. Loads may shift due to vehicle movement.

- Ensure that the transport vehicle is adequately sized for the weight and dimensions of the load.
- Secure loads on the transport vehicle using appropriate means.
- Protect the machine from moisture.

Assembly, Disassembly

Store tools and components

Tools can be stored outside of tool storage units. Components are ready for installation. People may trip and fall.

- Provide sufficient assembly and storage space.
- Do not store tools and components in traffic areas or in locations with poor visibility.
- Clean up tools after work is finished.

Commissioning

Before initial startup

- Always use the machine in accordance with the accompanying operating instructions.

- Carefully read the operating instructions, including the safety-related information, before initial startup.

  With this knowledge, you can identify dangerous situations and protect yourself and others.
- Do not operate the machine until you have read and understood the contents of the operating instructions.
- Train qualified personnel.
- Use qualified professionals.
- Work only with a machine that has not been tampered with and is undamaged.
- Observe local laws and regulations when using the machine.
- Ensure that the operator has ensured safety and that hazards can be avoided during operation.

Operation, Use

People in the danger zone

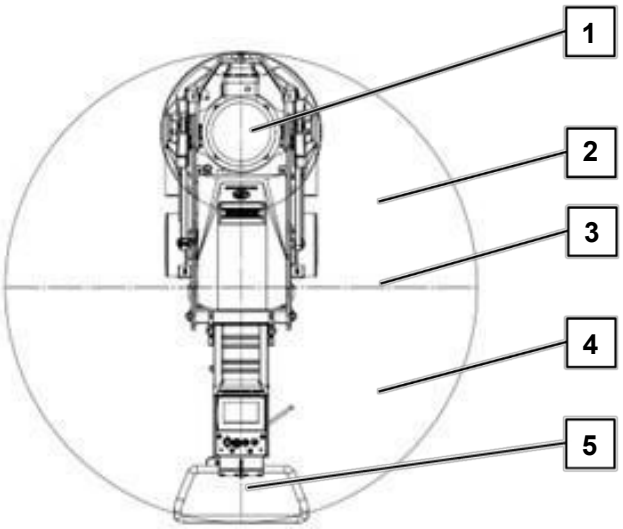


Fig. 1

Fig. 1 Hazard zones

Pos.	Designation	Item	Description
1	Machine with tools	2	Hazard zone for third parties
3	Boundary between the hazardous areas	4	Hazard zone for the operator
5	Handle	-	-

Before turning on the machine, ensure that third parties are kept out of the danger zones.

Operator:

- Move carefully within the danger zone for the operator.
- When using the remote control, keep the machine and hazardous objects in your field of vision.

Operation of the machine may pose hazards to bystanders, e.g., due to noise, dust, and the machine's guided movements.

- Direct people to stay at least 2 meters away from the danger zone.
- Observe the "one machine, one person" principle.

Operator presence

Due to the rotational movements of the tools, the machine may perform unintended movements if left unattended.

- Hold the machine by the handle while it is in operation.

Snagging the power cord

The power cord runs along the floor. Running over it can damage the power cord. Electric shock is possible.

- When moving forward, guide the power cord behind the machine and to the side of the operator.
- Guide the power cord by hand when moving backward. Place the power cord outside the machine's working area.

If the power cord is run over:

- Turn off the machine immediately.
- Check the power cord for damage and replace it immediately if damaged

Maintenance

Replacing components

The machine's components are designed to work together in terms of their parameters and construction. Replacing them with unsuitable components can lead to malfunctions and pose a risk to people working on the machine.

- Use only original replacement parts or replacement parts that meet the specifications of the original replacement part.

Storage

Unauthorized Access

The machine is intended for users with specialized knowledge and who have received training. See the chapter on user groups

➢ Store the machine so that unauthorized user groups cannot access it, e.g., locked in a room.

Disposal

Prevent environmental damage

The machine contains components or substances that pose a risk to the environment if disposed of improperly.

➢ To prevent environmental damage, proceed as follows. Materials and components:
- Sort,
-  Do not throw parts in the trash,
- dispose of them in accordance with legal regulations,
- have them collected and recycled by a specialized company. Consult the safety data sheets.

3.3.3 Depending on the location of the hazard

Apply to specific machine parts throughout their entire lifecycle

Safety devices

Regular inspection

The protective devices are designed so that, when used as intended, the risk of injury is reduced to a residual risk. If protective devices are not functional, serious injuries may result.

➢ Do not tamper with or modify safety devices.
➢ Always operate the machine with functional safety devices.
➢ Remove safety devices only when the main switch is turned off and secured against being turned back on.
➢ After repair work, reinstall the protective devices and check their function.

Entire machine

PPE

Risk of injury from loose clothing, ribbons, jewelry, and loose hair.

➢ Wear close-fitting work clothes.
➢ Tie back long hair and tuck it under a head covering.
➢ Remove jewelry.

Vibrations and noise

The machine has been designed to minimize vibration and noise levels as much as possible in accordance with the latest technical standards. In the event of abnormal:

- strong vibrations,
- loud noises
  - ➢ , immediately take the machine out of service and secure it against further use.
  - ➢ Notify the authorized dealer.
    The machine may only be inspected and repaired by maintenance personnel authorized by the dealer.

3.4 Operator

The operator:
...fulfills labor law obligations regarding the operation of the machine.
• operates the machine safely and without tampering throughout its entire service life, • ensures that staff read and understand the operating instructions, • instructs the staff before they begin work, • provides a hard copy of the operating instructions at the machine, • keeps the operating instructions and third-party documents in legible condition. • Provides fire extinguishers and first-aid kits
...performs personnel management tasks.
• assigns individuals to a user group, • defines access permissions for the machine, the control panel, the control system, and the program, • trains the user groups.
...instructs users on how to respond to accidents and operational malfunctions. The content of the instruction includes, for example:
• the locations of first-aid stations, • the location and layout of escape routes, • how to respond in emergencies and regular drills to practice these responses. ➢ After administering first aid, seek professional medical treatment immediately.

3.5 Personnel

3.5.1 Description of user groups

Qualified personnel
...are specialists who, due to their vocational training, professional experience, and recent relevant professional activity or personal characteristics, are capable of performing specialized work on the machine. They are assigned and instructed.

• has successfully completed and holds a recognized specialized training, possesses knowledge and experience in operating machines, • can assess the work task and perform it independently, • has knowledge of the applicable standards or the ability to acquire such knowledge, • has knowledge of the hazards occurring in their field of expertise as well as knowledge of how to prevent and eliminate them.
...will receive training from the respective dealer prior to commissioning. The following qualified personnel are required to operate the machine:
• for work on the electrical equipment for setup and testing • for maintenance and repair for troubleshooting • for transport, assembly, and disassembly work
Operators
...are persons who work with the machine in grinding operations.
• can read, • understand the symbols and instructions affixed to the machine, can, after instruction and training, perform the tasks independently and in accordance with the specifications, • recognize the hazards after receiving instruction and can react in accordance with the specifications.
Support staff
...are individuals who perform tasks in the vicinity of the machine that are not part of its operation. This includes, for example, cleaning. Support staff are not permitted to operate the machine.
• can understand instructions, • can follow instructions while working, • recognizes hazards after receiving instruction and can respond in accordance with the guidelines.
Trainees
...are individuals undergoing specialized training. They may operate the machine under the supervision of qualified personnel or perform tasks within their field of expertise.
• can understand instructions, • can follow instructions while performing their duties, • recognize hazards after receiving instruction and can respond in accordance with guidelines.
Contractor personnel
...are external employees who, under the following circumstances, possess the qualifications of the preceding employee groups:
• Before work begins, training and safety briefings must be conducted by qualified personnel and documented in writing.

- The work of external contractors must be coordinated with internal employees to prevent mutual hazards.
- Before work begins, a direct contact person—an internal employee—must be designated who is familiar with the work procedures and work locations.

3.5.2 Access Restrictions

User Groups

User groups may only be granted access to the machine in accordance with their qualifications.

Age

Users of the machine must be of legal age. Trainees under the age of 18 may only operate the machine in the presence of an instructor for training purposes.

Health

The machine must not be operated by persons who are under the influence of substances that impair reaction time, are tired, or are unable to operate it for health reasons.

Users must be able to recognize the visual warning signals.

- ➢ Keep unauthorized persons away from the machine.

3.5.3 Personal Protective Equipment (PPE)

The user's personal protective equipment includes:

PPE	When?	Pictogram
Safety helmet	• For all activities	
Respiratory protection	• During operation: o Respirator with FFP2 filter o for dust containing quartz or cement FFP3	
Certified safety goggles	• During the grinding process	
Hearing protection	• During operation: • e.g., ear muffs with an SNR of 25 dB	
Certified rubber protective gloves	• During the grinding process	
Certified insulated safety shoes	• All activities	
Protective clothing	• All activities	

3.6 Safety concept

3.6.1 Labels on the machine and packaging

Safety-related information in the form of pictograms and/or labels is affixed to the machine and the packaging. They indicate risks that:

- occur frequently and/or

- have serious consequences.

The following markings are affixed to the machine:

Meaning	Location	Label
Warning of dangerous electrical voltage	Control box	
Warning: Risk of hand injury	On the additional weight	

Meaning	Location	Label
Read the operating instructions before using the machine	On the rack	
Wear a safety helmet	On the rack	
Wear hearing protection	On the rack	
Wear safety goggles	On the rack	
Wear vibration-damping safety gloves	On the rack	
Wear insulated safety shoes	On the rack	

3.6.2 Emergency stop

Setup	Position	Function
Emergency stop button	On the control panel	Immediately stops dangerous movements. Immediately cuts off the power supply.

The emergency stop device:

- is located in an easily accessible place,
- locks when activated,
- and acts directly.

Emergency stop devices are only operated in an emergency. Malfunctions are therefore rarely noticed. In an emergency, a malfunction can lead to fatal or serious injuries.

➢ Check emergency stop devices regularly.

Restarting after an emergency stop:

➢ Check the cause of the activation.

➢ If the cause is unclear, do not start the machine.

➢ Rectify the cause.

➢ Reset the emergency stop device.

➢ Start operation.

During maintenance work, unplug the machine and secure the power cord to prevent it from being plugged back in.

3.6.3 Protective conductor, grounding, and equipotential bonding

The following are installed on the machine:

Designation	Function	Pictogram
Protective conductor	Protects people from electric shock.	

Equipotential bonding	Establishing electrical connections between conductive parts to achieve potential equalization.	

3.6.4 Dust protection



The dust cover prevents dust from escaping during processing.

- Install the dust guard before starting work.

3.6.5 Overload

The motor is equipped with an overload protection device that au machine from operating.

- Do not make any unauthorized modifications.
  The overload protection can be reset by qualified personnel under safe conditions.

In case of overload

- Stop grinding.
- Allow the motor to cool for 10 to 30 minutes.

4 Machine Description

4.1 Technical Specifications

➢ Operate the machine within the limits of the technical specifications.

4.1.1 Scope of Delivery

The scope of delivery includes:

- a machine with cable and plug,
- Dust protection tape or ring

Not included in the scope of delivery:

- Connection cable from the plug to the power source,
- grinding tools.

4.1.2 Machine specifications

Designation	Value
Drive motor speed	1410 rpm
Number of tool holders	1
Speed of grinding heads	1410 rpm
Vacuum connection	50 mm

Grinding pressures

Designation	Value
Contact pressure during sanding	65 kg

4.1.3 Dimensions, weights, and volume of the machine

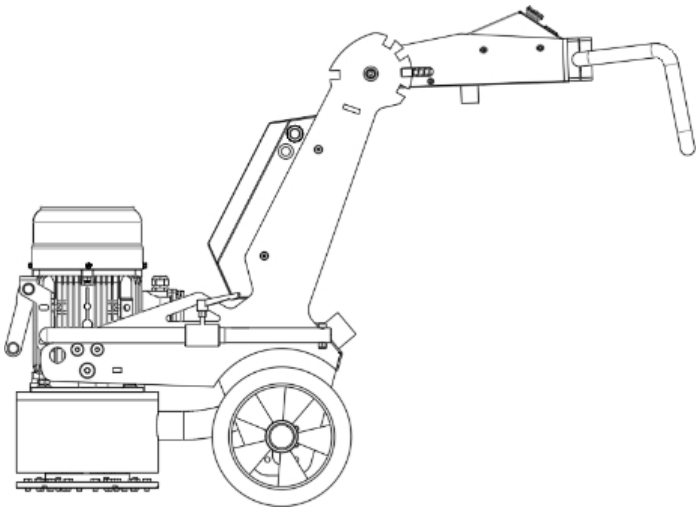


Fig. 2 Machine dimensions

Designation	Value
Dimensions in grinding position W x L x H	405 mm x 1,178 mm x 879 mm
Dimensions in transport position	405 mm x 716 mm x 833 mm
Grinding wheel, diameter	250 mm
Tool holder, diameter	250 mm
Grinding width of the machine	250 mm
Total weight, empty	115 kg

4.1.4 Environmental conditions

Designation	Value
Maximum slope angle of the ground to be worked	6°
Operating temperature	-10 to 40°C
Operating and storage temperature	5°C to 60°C
Humidity	max. 90% No condensation

4.1.5 Noise emission

The grinder generates significant noise emissions during operation. These depend on:

- the substrate,
- tool type,
- speed,
- operating environment.

Measured values

Measured quantity	Description	Value	Uncertainty	Standard reference
A-weighted emission sound pressure level at the workplace	L_{pA}	86 dB(A)	+ 2 dB	EN ISO 11201
A-weighted sound power level	L_{WA}	99 dB(A)	:!: 2 dB	EN ISO 3744
Peak sound pressure level	L_{pC,peak}	130 dB(C)	+ 2 dB	EN ISO 11201

The values were determined in accordance with the following recognized method:

- EN ISO 11201 - Acoustics - Noise emission from machinery and equipment - Determination of emission sound pressure levels at the workplace and at other specified locations in a substantially free sound field above a reflecting plane with negligible ambient corrections
- EN ISO 3744 - Acoustics - Determination of sound power and sound energy levels of noise sources from sound pressure measurements - Envelope method of accuracy class 2 for a substantially free sound field over a reflecting plane

The determined noise values meet the requirements of the Machinery Directive 2006/42/EC, Annex I, Section 1.7.4.2 (u). They do not constitute a guarantee but are intended for comparing different machine models under standardized conditions.

The values apply to intended operation under typical operating conditions on a concrete floor. The actual noise level may vary.

➢ Take appropriate noise control measures.

Noise control measures

The operator is obligated to regularly monitor noise levels at the workplace and, if necessary, implement organizational protective measures

Directive 2003/10/EC.

- Wear hearing protection at 80 dB(A) or higher.
- Remove persons without hearing protection from the noisy area

Occupational safety

If the daily noise exposure level exceeds 85 dB(A), the employer must provide personal protective equipment (PPE) for hearing protection and instruct employees on its use.

- Wear hearing protection throughout the entire grinding operation

  e.g., earmuffs with an SNR of 25 dB.

4.1.6 Vibration

Vibration-related stress occurs during machine operation, influenced by:

- grinding process,
- machine settings,
- tool type and condition,
- the substrate,
- the operator's working method.

The following values were measured under standardized conditions in accordance with EN ISO 20643 and EN ISO 5349-1/-2. They are used to assess hand-arm vibration exposure.

Vibration exposure limit values

Type of limit value	Parameter	Assessment
Action value	A(8) = 2.5 m/s*	If exceeded: Risk assessment required
Exposure limit	A(8) = 5.0 m/s*	Must not be exceeded

The table provides limit values in accordance with EU Directive 2002/44/EC on minimum health and safety requirements regarding the exposure of workers to the risks arising from vibration.

Measurements taken at the machine

Measured variable	Designation	Measured value	Measurement uncertainty	Reference standard
Effective Vibration Total value (Hand-Arm)	a_{hv}	3.2 m/s*	+ 0.5 m/s"	EN ISO 20643 / EN ISO 5349-1
Assessed daily vibration exposure n	A(8)	2.0 m/s"	+ 0.5 m/s"	EN ISO 5349-2

The measured values were determined under standardized conditions in accordance with EN ISO 20643 and EN ISO 5349-1/-
2. They are used to assess hand-arm vibration exposure. The specified measured values were determined under practical conditions on a concrete floor.

The vibration values listed meet the requirements of the Machinery Directive 2006/42/EC, Annex I, Section 1.7.4.2 (v). They are intended for comparing different machine models and do not constitute a guarantee for specific operating conditions.

Result

The measured vibration value of the machine is below the statutory trigger value, provided the machine is operated as intended and with properly maintained grinding tools.

Measures for Vibration Reduction Operator

The employer or operator is obligated to regularly assess the actual vibration exposure at the workplace and, if the limit or trigger values are exceeded, to take appropriate protective measures in accordance with the Noise and Vibration Occupational Safety and Health Regulation (LärmVibrationsArbSchV).

These include, in particular:

- Organizational limits on working hours,
- provision of ergonomic aids,
- regular training of employees,
- documentation of measurement results.

Operator

- To reduce vibration exposure, follow these guidelines:
  - Check grinding tools regularly for imbalance, wear, or damage, and replace them in a timely manner.
  - Always guide the machine with both hands in a controlled manner.
  - Wear vibration-damping gloves.
  - Limit work intervals and take regular breaks.
  - Apply even pressure when sanding and do not use excessive force.
  - Ensure a stable, level working surface.

4.1.7 Maintenance with power and Operating fluids Electrical power supply

Designation	Value
Mains voltage	230 V
Rated power	2.2 kW
Rated current	13 A
Input frequency	50 / 60 Hz
Frequency converter	2.2 kW
Electrical connection	CEE 16 A — 230 V

The machine is connected to the power supply using a power cord. The supply voltage is 230 V.

- Use the machine only with the control box closed.

After switching off the machine or unplugging the power cord:

⚠ **DANGER.** High voltage is still present in the frequency converter after unplugging the power cord. Touching electrical components is fatal.

- Do not touch electrical components.
- Wait until the indicator light goes out.

4.2 Installation

4.2.1 General views



Fig. 3 Overall view - Front view

Item	Designation	Item	Description
2	Motor	3	Machine rack
4	Grinding wheel	6	Dust cover
7	Handle	8	Control unit
9	Control and operator console	11	Wheels

4.3 Grinding tools

The grinding tools are not part of the machine or the scope of delivery and must be provided by the operator. The grinding tools must be suitable for the tool holders.

4.4 Control and display elements

4.4.1 Control panel on the control console



Item	Description	Function
1	Start button	Starts the machine
2	Stop button	Stops the machine
3	Operating light	Lights up when the machine is running
4	Emergency stop button	Stops dangerous movements immediately
5	Locking lever	For adjusting the control console
6	Handle	For securely holding and operating the machine

4.4.2 Indicators on the control box



Item	Designation	Function
2	Operating hours counter 	Displays the current number of operating hours

5 Commissioning

5.1 Receive the machine and remove the packaging

⚠ Check the packaging for damage.

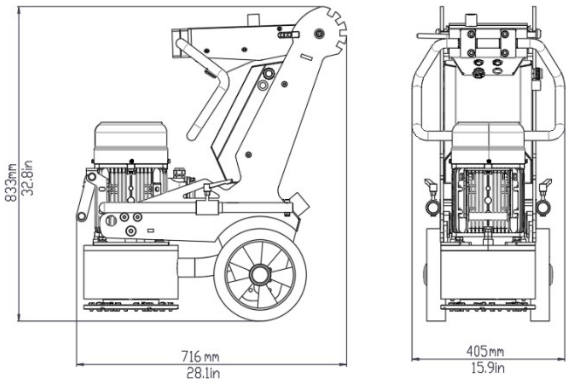
If the packaging is damaged, notify the shipping company.

⚠ Check the machine for damage.

- If there are signs of damage, report the damage to the dealer.
- ⚠ Check whether the machine matches the agreed-upon scope of delivery.
- If you have any questions, contact the dealer

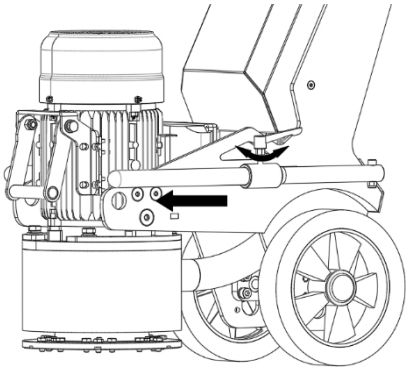
5.2 Transport and Packaging Position

The positions of the control panel and handle can be adjusted for transport or packaging. The minimum packaging dimensions are as follows and can be packaged accordingly.



5.3 Transporting the machine

The machine is equipped with a lifting bar whose locking handle can be adjusted during transport to extend the lifting bar and facilitate transport.



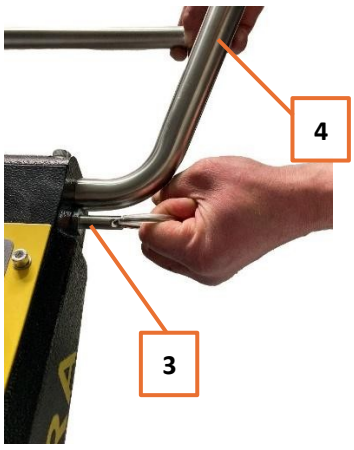
5.4 Adjusting the grinding position

When the grinder is in operation, the position of the swivel lever must be adjusted to achieve the optimal working position.



Item	Description	Item	Description
1	Drive with gearbox	2	Weight in operating position
3	Control and operator console	4	Handle

5.4.1 Adjusting the handle



Item	Description	Item	Description
3	Adjustment pin for handle	4	Handle

The handle can be adjusted to the operator's ergonomics in several stages.

Position the handle:

- Hold the handle.
- Pull out the adjustment pin and hold it.
- Move the handle up or down slightly to the desired position.
- **WARNING** If the adjustment pin is not fully retracted, the machine cannot be operated safely. The handle may shift.
- Release the adjustment pin.

  The adjustment pin slides into the correct position on its own. The handle is locked in place.
- Operate the machine only with the adjustment pin fully inserted

5.4.2 Adjusting the guide and control console



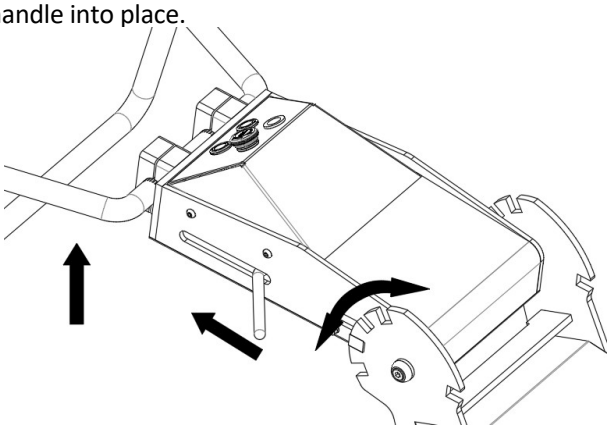
Fig. 40 Adjusting the control and operator console

Item	Designation	Item	Description
1	Adjustment knob	2	Control and operating console
4	Handle	4	

⚠ **WARNING** The detached control and operator console will tip over due to gravity.

- Hold the control and operating console by the handle.

- Grasp the adjustment handle and loosen it.
- Move the guide and control console to the desired position.
- Snap the adjustment handle into place.



5.5 Preparing the machine - Tilting position

5.5.1 Preparation

- Adjust the control handle accordingly.
- Make sure the machine is disconnected from the power supply (unplug the power cord).
- Secure the machine to prevent it from restarting.
- Working environment:
  - Work only on a level, horizontal surface.
  - Ensure there is sufficient space and lighting.

5.5.2 Safety and warning instructions

ı Risk of tipping if operated improperly.

ı Risk of crushing when tilting and lowering.

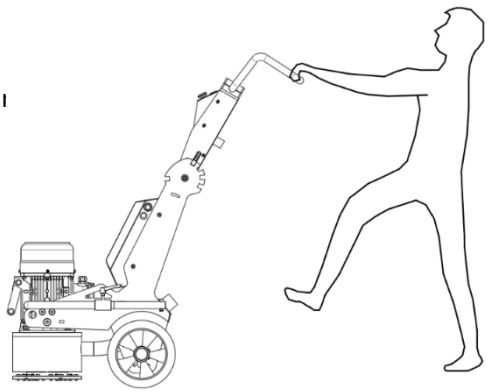
ı Machine may tip over → Risk of property damage and injury.

ı Proceed slowly and in a controlled manner when setting the machine down

ı Be mindful of your own physical strain.

5.5.3 Procedure

- Grasp the handle.
- Tilt the machine backward using your body weight.
- Guide the handle down to the floor in a controlled mai
- Carefully set the machine down.
- Make sure the machine is stable on the console.



5.5.4 After tilting

- Check for stability (firm, secure footing).
- Make sure that no unintended movement is possible.

5.6 Installing / changing grinding tools

5.6.1 General notes

- Different tool types are possible → always follow the manufacturer's instructions.
- Use only approved tools.
- No liability for incorrect installation.

5.6.2 Preparation

Before starting:

- Disconnect the machine from the power supply:
  - Unplug the power cord
  - Wait until the indicator light goes out (be aware of residual voltage!)
- Secure the machine to prevent it from turning back on
- Tilt the machine
- Work area:
  - Ensure adequate lighting
  - Clean (remove dust, dirt, and chips)

5.6.3 Safety precautions

- Wear protective gloves
- Allow hot tools to cool
- Avoid direct skin contact
- Ensure a stable working position

5.6.4 Remove grinding tools

- Carefully loosen old tools:
  - if necessary, use a rubber mallet or flathead screwdriver
- Remove the tools
- Dispose of worn tools properly

5.6.5 Prepare the tool holder

- Thoroughly clean the holder
- Check for damage:
  - Cracks
  - Wear
- Do not continue to use damaged holders

5.6.6 Install the grinding tools

- Use new tools in accordance with the manufacturer’s instructions
- Pay attention to the following points:
  - Symmetrical arrangement
  - Secure fit
  - Tight fit
- Check the fit of all tools

5.6.7 Return the machine to the working position

- Carefully tilt the machine back
- Lower slowly and in a controlled manner

5.6.8 Restart

- Release the emergency stop
- Plug in the power cord
- Turn on the machine
- Start the motor

5.6.9 Functional test

- Watch for the following abnormalities:
  - Unusual noises
  - Vibrations
  - Imbalances

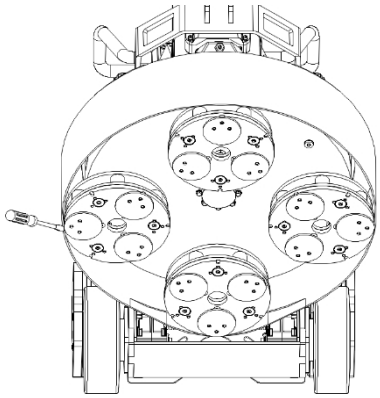
If present:

- Switch off the machine immediately

- Disconnect power
- Check tool mounting

5.6.10 Tool change with the Magnetic Quick-Change System

The following is an example illustration of tool change using the Magnetic Quick-Change System. This system enables quick, tool-free replacement of the grinding segments and increases work efficiency during frequent tool changes.



5.7 Connecting the vacuum cleaner hose

Always ensure that a suitable industrial vacuum cleaner is connected to the grinding machine during the grinding process.

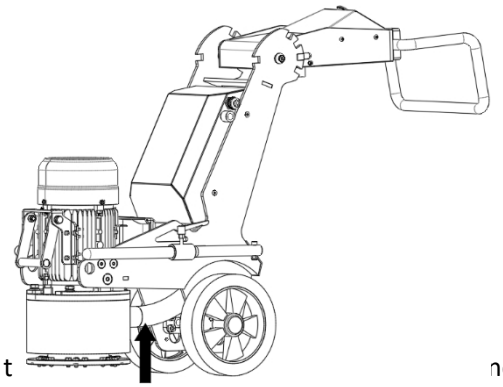
If possible, use a vacuum cleaner designed for use with HTG products to ensure optimal extraction performance and machine performance.

Extraction prevents grinding dust from entering the ambient air and endangering the health of the operator as well as other persons present . Since inhaling grinding dust is harmful to health**,** a suitable respirator must be worn during operation even when using an extraction system to protect the health of the operating personnel.

The machine is designed exclusively for dry sanding.

For dry sanding, use a vacuum hose with a suitable diameter.

One end of the hose must be attached to the machine's vacuum connection, and the other end to the vacuum cleaner itself. Ensure a tight and secure connection to guarantee effective dust extraction.



The vacuum cleaner hose must not come into contact with t ne under any circumstances, as this can cause damage or malfunctions.

5.7.1 Dust protection



The dust guard prevents dust from escaping during operation.

➢ Attach the dust guard before starting work.

6 Operation and Use

6.1 Operation

6.1.1 Turning on

Step 1:

⚠ Plug in the power cord.

⚠ When dry sanding, connect a vacuum cleaner and turn it on

ℹ The vacuum cleaner is not part of the machine described in this operating manual.

➢ Follow the manufacturer's instructions.

Step 2:

- Press the start button on the control unit.
- The machine starts

Step 3:

- Grasp the handle.
- Guide the machine by hand.

6.1.2 Turn off

Step 1:

- Press the stop button on the control panel.
- The machine stops

Step 2:

- Unplug the power cord.

6.2 Sloped Floors

⚠ **WARNING**. Hazard when working on sloped surfaces. If the slope is too steep, the machine may tip over or slide.

- ➢ Check the slope before beginning work on an inclined surface.
- ➢ Slope up to 6°:
  - ➢ No special precautions are required

⚠ **WARNING**: Slope >6°. The machine may tip over and slide

- ➢ Floor sanding is prohibited.

6.3 Sanding with the machine

The operator holds the machine by the handle and guides it in the desired direction. While doing so, the operator walks directly behind the machine with an upright posture.

The operator is directly exposed to noise and dust emissions.

6.3.1 Grinding position of the machine

Before grinding begins, the machine is moved into the operating position.

6.3.2 Description of the process

Clear the area to be ground.

Grinding tools are mounted in the tool holders. These are electrically driven. The tool holders are arranged so that a continuous grinding path is created as the machine moves. The surface of the floor to be ground is removed evenly.

6.3.3 Dry grinding

⚠ WARNING: Dust hazard.

➢ Wear respiratory protection.

Dry sanding is

- fast,
- flexible,
- dust-intensive

and suitable for

- rough work,
- renovation work
- preparatory work.

To prevent dust from spreading around the grinding tool, a dust guard is mounted around the tools. Additionally, a vacuum cleaner must be connected to the machine. The vacuum cleaner must be switched on separately and runs continuously during dry grinding.

Follow the vacuum cleaner manufacturer's operating instructions.

6.3.4 Manual grinding

During manual grinding, the operator grips the machine's handle and guides it in the desired direction. The operator walks behind the machine and looks in the direction of grinding.

The operator keeps an eye on the position of the power cord and prevents the cord from being sanded over.

6.3.5 Grinding example: Direction of travel

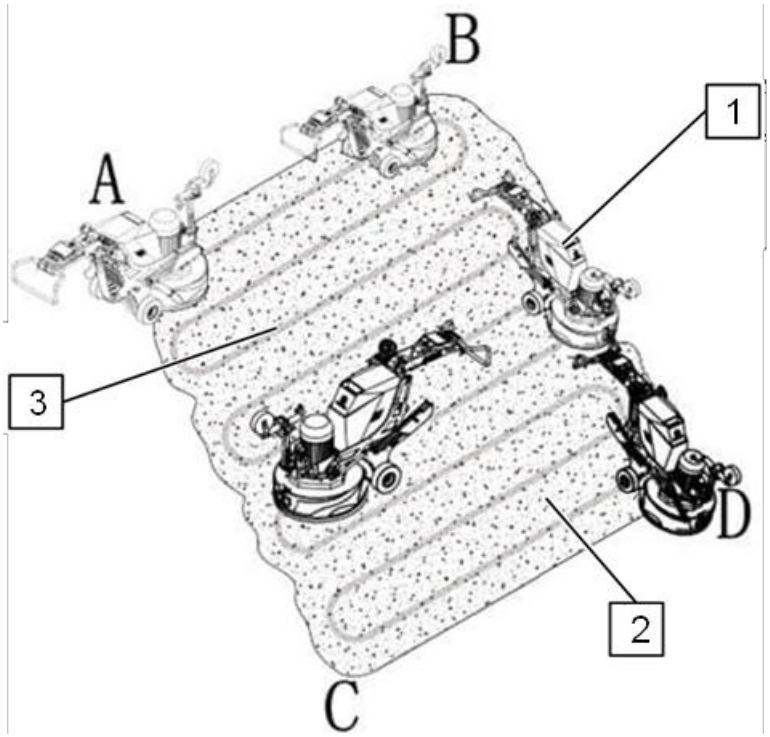
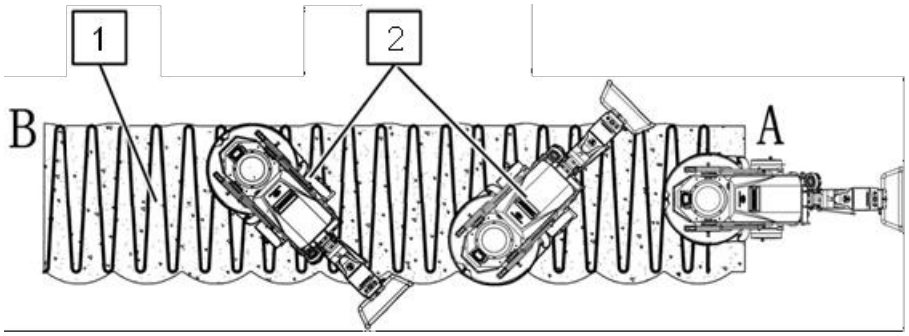


Fig. 18 Sanding path on wide surfaces

Pos.	Designation	Pos.	Description
A	Start point	B	Turning point
C	Turning point	D	Endpoint
1	Machine positions	2	Floor area
3	Grinding marks	-	-

When sanding, guide the machine forward across the surface to be treated. The sanding passes should be parallel and close enough together that the sanding marks overlap by approximately 20%.



Guide the machine forward across the surface to be processed in a right-left motion. As you do so, turn the front of the machine at the edge of the surface in the direction of travel without making a curve. While sanding, the operator moves slowly but steadily from A toward B.

6.3.6 Emergency Stop

Function

The emergency stop is used to **immediately shut down** the machine in case of danger and to prevent hazards to persons or the machine.

Activating the emergency stop switch:

- the power supply to the motor is interrupted
- the machine is stopped immediately

Operation

- Activate the emergency stop by **pressing the red mushroom-shaped button**
- The machine stops immediately

What to do in an emergency

- Activate the emergency stop immediately in the event of:
  - uncontrolled movements
  - unusual noises or vibrations
  - Danger to persons
  - technical malfunctions

Unlocking the emergency stop switch

After the cause has been eliminated:

1. **Unlock** the emergency stop switch by **turning it**
2. Ensure that there is no longer any danger
3. **Deliberately restart** the machine

Safety and warning notices

WARNING – Misuse of the emergency stop

- The emergency stop is **not a normal stop function**
- Do not use for regular shutdowns

WARNING – Restart

- The machine **does not** start **automatically** after unlocking
- The machine can only be started using the start switch

CAUTION – Functional test

- Check the emergency stop function daily:
  - Start the machine
  - Activate the emergency stop → Machine must stop immediately

Note

- One non- non-functioning Emergency stop constitutes a a significant safety risk .

  Take the machine out of service immediately and have it inspected

7 Troubleshooting

If errors cannot be resolved, contact your dealer.

Fault	Possible causes	Solution
Machine does not start	Power cord not plugged in	Check power connection
	No power available	Check the outlet / power cord
	Fuse tripped	Check fuse
	Emergency stop activated	Unlock emergency stop
	Motor protection switch tripped	Reset motor protection (after cooling down)
	Start/stop switch defective	Check / replace switch
	Connection cable damaged	Check / replace cable
	Motor defective	Have the motor inspected
Circuit breaker has tripped	Excessive material removal or excessive contact pressure	Reduce grinding pressure
	Grinding tool is jammed	Check and clean the tools
	Incorrect or dull tools	Use suitable tools
	Motor overloaded (continuous operation)	Allow the machine to cool down
	Mains voltage too low	Check the power supply
	Mechanical blockage (bearing / gearbox)	Have the machine inspected
Motor runs unevenly or with interruptions	Ambient temperature too high	Let the machine cool down
	Grinding tools are uneven moderately worn	Check/replace tools
	Tools are unevenly worn mounted	Correct mounting

	Voltage fluctuations	Check power supply
	Incorrect tool selection	Replace tools
	Foreign objects in the grinding head	Clean the machine
Dust extraction is not working	Vacuum is turned off or not connected	Turn on the vacuum / check connection—
	Hose is clogged	Clean the hose
	Filter in the vacuum cleaner is clogged	Replace or clean the filter
Excessive vibration during operation	Grinding tools mounted unevenly	Mount tools correctly
	Imbalance caused by damaged segments	Replace damaged segments
Fuse trips	Excessive floor unevenness	Guide the machine smoothly
	Short circuit in the cable or motor	Check cable, plug, and motor
	Overload due to a jammed tool	Check/replace tools
The machine is running, but there is no grinding effect visible	Wrong tool type	Select suitable tools
	Tool is worn	Replace tools
Excessive machine heating	Grinding load too high	Reduce load
	Continuous operation without breaks	Allow the machine to cool down

8 Maintenance / Servicing

DANGER – Electrical voltage

- Before performing any maintenance or cleaning work:
  - Unplug the power cord
  - Secure the machine against accidental restart
- Do not touch electrical components

8.1 Maintenance Schedule

8.1.1 Daily

Component	Task
Switches and indicators	Turn on the machine and check: • Function of start/stop switch • Visual inspection of power connection
Emergency stop switch	• Unlock the emergency stop • Start the machine → is it running properly? • If I press the emergency stop button, will the machine stop immediately?
Machine in general	• Visual inspection for damage • Cleaning (remove dust and dirt, preferably with a vacuum cleaner rather than compressed air)
Dust extraction / extraction ducts	• Unplug the power cord • Remove blockages • Check connections
Grinding tools and tool holders	• Disconnect the machine from the power supply • Tilt the machine • Remove debris • Check fit and wear
Dust protection / brush ring	• Check for damage and wear • Replace if necessary
Power cord and plug	• Visual inspection for damage

8.1.2 Monthly

Component	Task
Wheels / Chassis	• Check for smooth operation • Check fasteners
Electrical connections	• Visual inspection for loose or damaged wires
Screw connections	• Visual inspection for tight fit
Motor circuit breaker	• Test function (triggering / resetting)

8.1.3 Quarterly

Component	Activity
Bearings / moving parts	• Check for noise, play, or wear
Entire machine	• General functional inspection by qualified personnel

8.2 Cleaning

Cleaning interval

- Daily after work

Before each cleaning

- Unplug the power cord
- Secure the machine to prevent it from being turned back on

Cleaning tasks

Component	Task
Controls and displays	• Clean with a brush or dry cloth • Do not allow moisture to penetrate
Grinding disc cover / Exhaust area	• Remove the extraction hose • Check the extraction opening • Remove dust with a brush
Grinding tools	• Tilt the machine • Loosen tools if necessary • Remove residue with a brush or putty knife
Machine housing	• Clean with a slightly damp cloth
Vacuum connection	• Check for blockages and clean

External cleaning

- Clean external parts, e.g., housing parts, with a slightly damp cloth.
- Do not use dripping wet cloths.
- Do not clean with a high-pressure washer.

8.3 Additional maintenance instructions

- Regular inspection by **a qualified electrician** (e.g., DGUV V3)
- Use a suitable **extension cord (note the wire gauge)**
- Use only **original-quality** replacement parts
- Maintenance intervals depend on:
    - Operating time
    - Material

- Dust exposure

6 Decommissioning

When the machine is taken out of service, its operational readiness is:

- suspended indefinitely or
- suspended for an extended period,

as a result, maintenance work according to the maintenance schedule and other monitoring measures are not being carried out.

The following steps are required:

- Unplug the power cord and secure it to prevent it from being reconnected.
- Prevent unauthorized persons from restoring the power supply.
- Machines:
  - Move to the travel position.
  - Park on a horizontal and level surface.
  - Lower the control and operator console to the transport position.
  - Secure against collision with other machines or vehicles.
- Keep the operating instructions in a safe place.
- Prevent contamination from deposits.
- Perform regular visual inspections.

6.1 Storage

Storage conditions

The storage location must meet the following conditions:

- dry at room temperature
- protected from the weather
- sufficiently solid floor
- low dust generation.

If storage conditions are not followed, components may corrode or age prematurely. This will shorten the machine's service life.

Inspect stored items

Unforeseeable events may occur during storage. These include:

- Weather conditions
- Building damage
- Pest infestation
- Carelessness during other storage operations

Damage may occur to the machine.

- Check the storage location, the condition of the machine, and its position at regular intervals.

10Disposal

10.1 Dry grinding dust

Depending on the material being processed, the dry grinding dust produced during the grinding process may contain mineral, cement-based, metallic, or asbestos-containing components.

• **WARNING** Inhalation of grinding dust. Grinding dust may contain fine particles hazardous to health, e.g., quartz dust, metal oxides, and cement components. The grinding dust is respirable and can cause serious damage to the respiratory tract.

- Wear PPE:
  - FFP2-rated respirator,
  - protective gloves,
  - Safety goggles,
  - Disposable protective suit, Type 5/6.

Dry grinding dust:

- Collect in closed containers or vacuum cleaner bags and dispose of.
- Do not allow the product to enter the environment, the sewer system, or unpaved areas.
- Dispose of in accordance with applicable environmental, hazardous materials, and waste disposal regulations.

10.2 Wet grinding slurry

Wet grinding produces wet grinding slurry, which may contain mineral, cement-based, metallic, or asbestos-containing components depending on the material being processed.

• **CAUTION:** Wet grinding dust may be alkaline or chemically irritating. Skin, respiratory, and eye irritation are possible

- Wear PPE:
  - FFP2-rated respirator,
  - protective gloves,

- safety goggles.

Wet grinding dust:

- Collect in suitable, sealed, and chemically resistant containers.
- Do not allow to enter sewers, surface water, or the ground.
- Dispose of in accordance with applicable environmental, hazardous materials, and waste disposal regulations.
- After drying, treat and dispose of the settled solids as you would dry grinding dust.

10.3 Sanding dust containing asbestos

When sanding old floors, adhesives, fillers, or coatings applied before 1995, there is a risk of asbestos-containing dust.

- **WARNING: Causes** serious damage to the respiratory tract and is carcinogenic. The inhaled dust is hazardous: Waste code 17 06 05* – "Construction materials containing asbestos."

→ The provisions of TRGS 519 (Technical Regulation for Asbestos Demolition, Renovation, or Maintenance Work) must be strictly adhered to.

- Work involving materials containing asbestos must be carried out by qualified personnel in accordance with TRGS 519, Annex 3 or 4, who possess the appropriate asbestos expertise.
- Pack the dust in dust-tight, labeled asbestos bags with a red warning label "A" or in big bags.
- Dispose of waste through licensed disposal facilities in accordance with hazardous materials and waste regulations
  - KrWG – Act on the Promotion of the Circular Economy and the Ensuring of Environmentally Sound Waste Management
  - TRGS – Technical Rules for Hazardous Substances
  - AVV – Regulation on the European Waste Catalogue.
- Do not allow moist grinding slurry containing asbestos to dry.

10.4 Other wastes

Designation	Disposal
Grinding tools	Observe legal regulations and the manufacturer's instructions Observe
Filter material	Dispose of in accordance with the filtered dust

10.5 Disposal upon final decommissioning and dismantling

The machine contains components that pose a risk to the environment if disposed of improperly:

- Electrical and electronic components:
  - Cables
  - Switches
  - Controls
  - Lights
  - Displays
- Rubber on the tires.
- Plastics, e.g., remote control housing.
- Follow the disposal instructions in section 3.3.2.

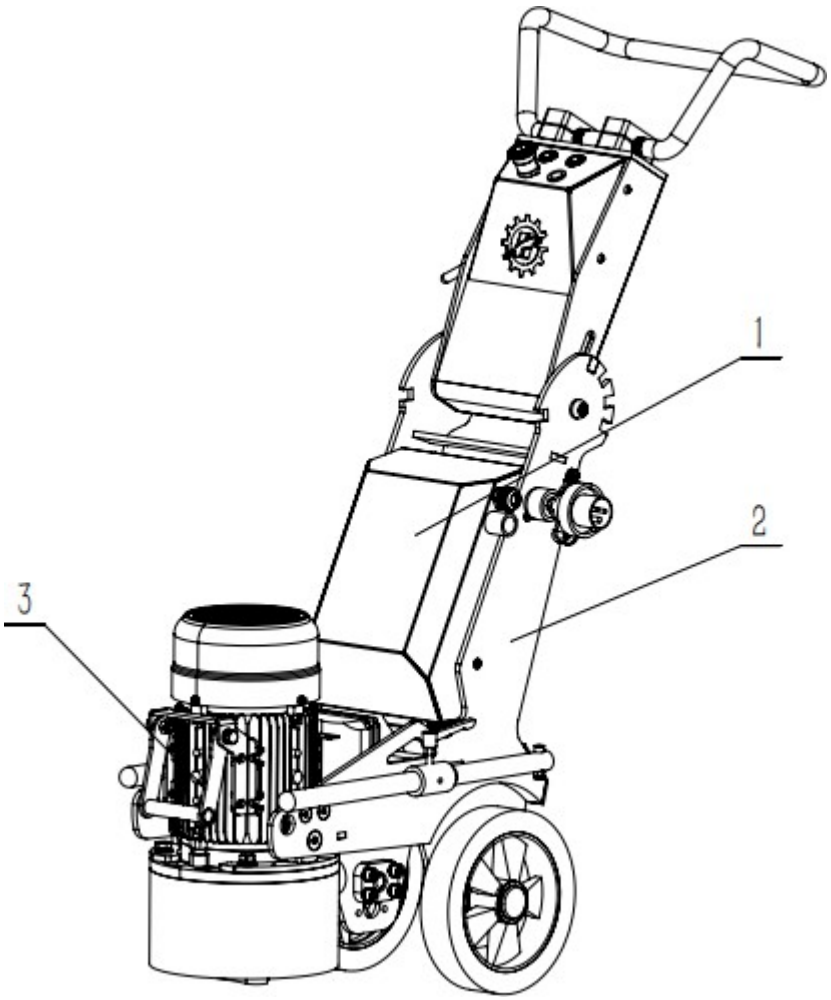
11 Documentation systems

11.1 Nameplate



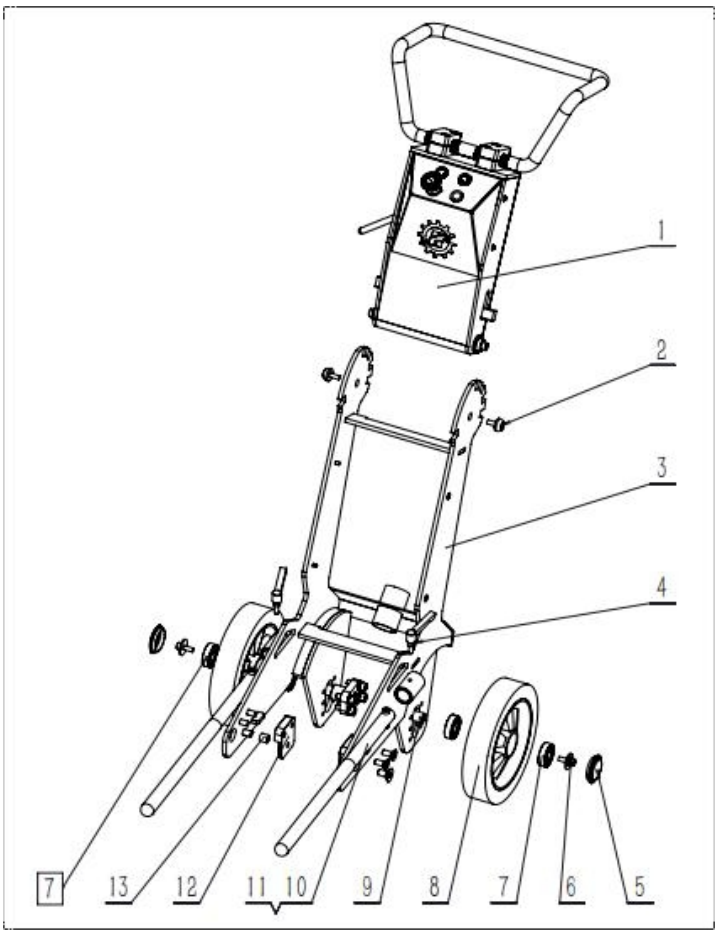
12Exploded views and parts lists

12.1 General view



Pos	Item No.	Description	Qty
1	2.42.066.002	Control cabinet assembly	1
2	2.11.066.002	Rack assembly	1
3	2.41.066.007	Drive assembly	1

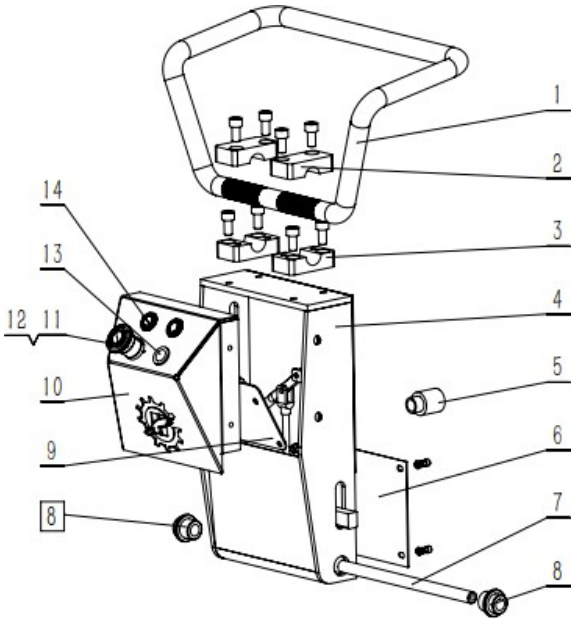
12.2 Rack Assembly



Item	Item No.	Description	Qty
1	2.41.066.010	Swivel lever assembly	1
2	4.11.001.034	Swing lever cap	2
3	2.21.066.007	Rack frame	2
4	5.11.105.001	Adjustable locking handle	2
5	3.22.111.006	Wheel cover	2
6	5.11.109.026	Washer	2
7	3.22.112.081	Bearing	4
8	3.22.111.013	Aluminum wheel	2

9	4.11.026.003	Adjustable axle	2
10	4.11.001.011	Lifting rod	2
11	3.22.122.005	Handle for lifting bar	2
12	4.11.066.023	Drive suspension	2
13	3.22.122.007	Rubber boot	2

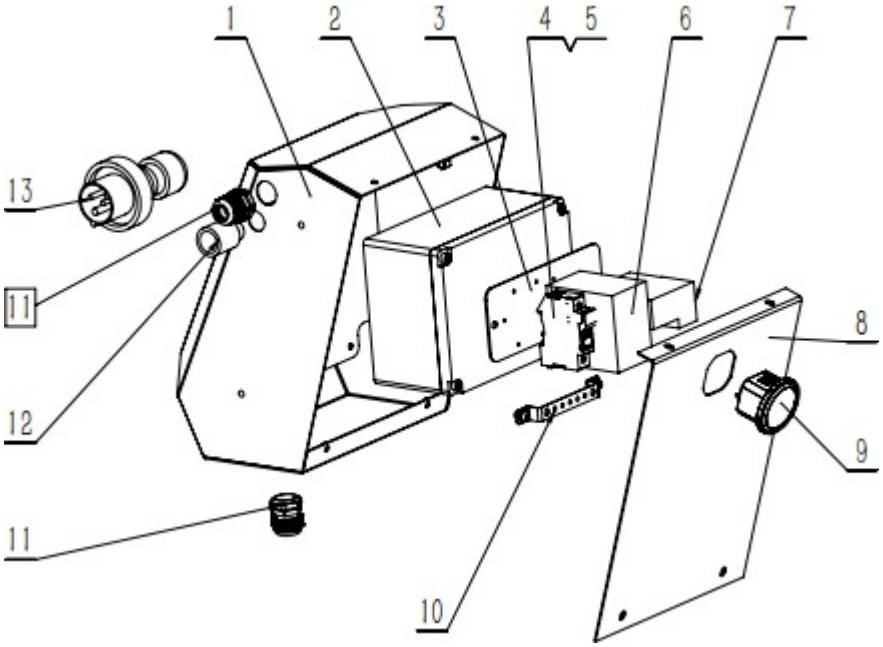
12.3 Control console assembly



Pos	Item No.	Description	Qty
1	4.11.066.039	Swivel lever handle	1
2	4.11.066.043	Clamping cover	2
3	4.11.066.044	Clamp holder	2
4	2.21.066.008	Swivel bracket, welded	1
5	5.11.110.003	Cable gland	1
6	4.11.066.042	Cover	1
7	4.11.066.018	Rotation axis	1

8	4.11.066.020	Bearing bushing	2
9	4.11.066.056	Cover plate	1
10	4.11.066.066	Control panel	1
11	3.21.114.080	Emergency stop switch	1
12	3.21.114.079	Emergency stop switch base	1
13	3.21.114.120	Operating light	1
14	3.21.114.068	Start/Stop button	2

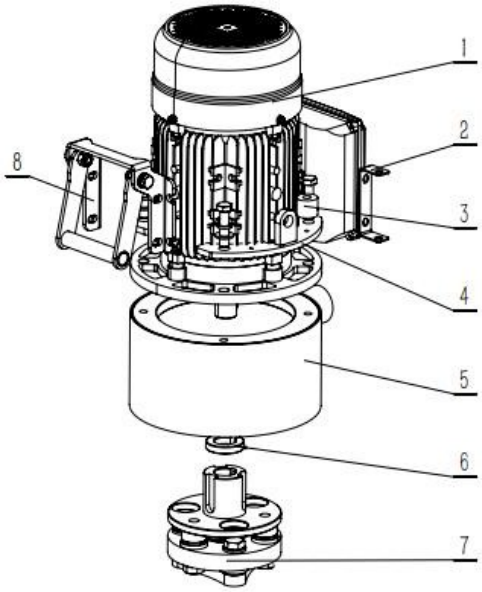
12.4 Electronic Control Module



Pos	Item No.	Description	Qty
1	4.11.066.046	Control box	1
2	3.21.201.065	Terminal box	1
3	4.11.066.059	Mounting plate	1
4	3.21.201.041	Fuse	1

5	3.21.201.036	Glass tube fuse	1
6	3.21.122.060	Motor protection switch	1
7	3.21.122.059	Overload relay	1
8	4.11.066.068	Cover for control cabinet	1
9	3.21.119.005	Operating hours counter	1
10	3.21.201.023	Grounding bar	1
11	5.11.110.009	Cable gland	2
12	5.11.110.003	Cable gland	1
13	3.21.112.004	Plug	1

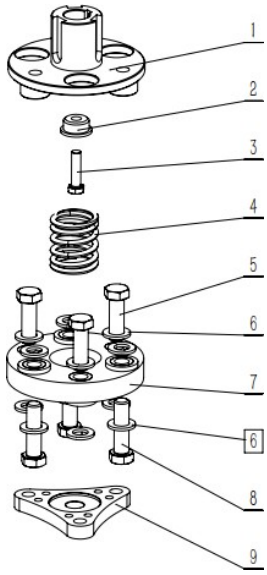
12.5 Drive assembly



Pos	Item No.	Description	Qty
1	3.11.111.075	Motor	1
2	4.11.066.040	Wrench holder	1
3	4.11.066.028	Machine dampers	2

4	4.11.066.045	Drive suspension	2
5	2.21.066.011	Grinding head cover	1
6	4.11.002.026	Motor insulation sleeve	1
7	3.31.162.143	Grinding head assembly	1
8	2.41.066.002	Handle assembly	1

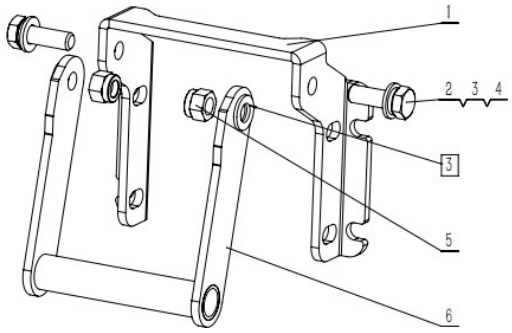
12.6 Assembly: Buffer System and Grinding Wheel



Item	Item No.	Description	Qty
1	4.11.066.024	Upper flange	1
2	4.11.002.028	Motor washer	1
3	5.11.101.164	Hex head screw	1
4	3.22.120.002	Compression spring	1
5	5.11.101.015	Hexagon head screw	3
6	5.11.109.011	Washer	12
7	3.22.117.001	HTG Central Buffer	1
8	5.11.101.086	Hexagon head screw	3

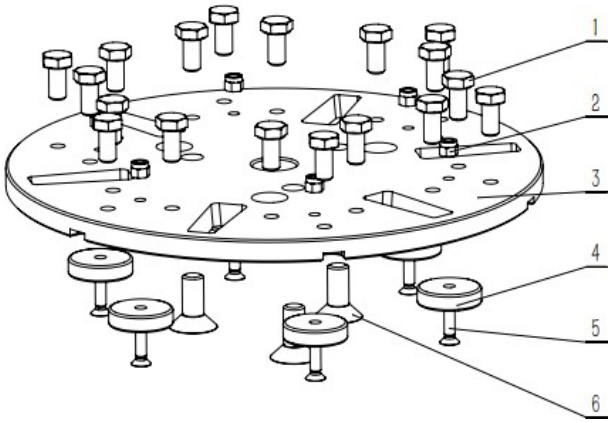
9	3.14.111.069	Triangular adapter	1

12.7 Handle assembly



Pos	Item No.	Description	Qty
1	4.11.002.037	Mounting plate for handle	1
2	5.11.101.083	Hexagon head screw	2
3	5.11.109.028	Washer	4
4	5.11.109.050	Spring washer	2
5	5.11.106.010	Nut	2
6	4.11.002.038	Handle plate	1

12.8 HTG grinding wheel assembly



Pos	Item No.	Description	Qty
1	5.11.101.001	Hexagon head screw	18
2	5.11.106.013	Damping nut	6
3	3.14.112.175	HTG Tool Plate	1
4	3.22.114.001	Magnet	6
5	5.11.103.006	Flat-head screw	6
6	5.11.101.043	Flat-head hex socket screw	3

EG-/EU- Konformitätserklärung

nach der Maschinenrichtlinie
2006/42/EG Anhang IIA

Hiermit erklären wir, dass die nachfolgend bezeichnete Maschine aufgrund ihrer Konzipierung und Bauform sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen grundlegenden Sicherheits- und Gesundheitsanforderungen der EG-/EU-Richtlinien entspricht.

We hereby declare that the machine described below complies with the relevant basic safety and health requirements of the EC/EU directives in terms of its design and construction, as well as in the version marketed by us.

Bezeichnung: *Description:*	**HIGH TECH GRINDING - 250 Ultra, CG250 Ultra, 250S Ultra, 460 Ultra, 550 Ultra, 550RC Ultra,680 Ultra, 680RC Ultra, 680SP Ultra, 680GBD Ultra, 800SP Ultra, 820RC Ultra, 820GBD Ultra**

entspricht folgenden EG-Richtlinien: *Complies with the following EG directives:*	**Maschinenrichtlinie 2006/42/EG**	*Machinery Directive 2006/42/EG*
	EMV-Richtlinie 2014/30/EU	*EMV Directive 2014/30/EU*

Angewandte harmonisierte Normen, insbesondere: *Applied harmonized standards, in specific:*	**EN ISO 13849-1:2023**	Sicherheit von Maschinen – Sicherheitsbezogene Teile von Steuerungen *Safety of machinery – Safety-related parts of control systems*
	EN ISO 12100:2011	Sicherheit von Maschinen – Allgemeine Gestaltungsleitsätze – Risikobeurteilung und Risikominderung *Safety of machinery – General principles for design – Risk assessment and risk reduction*
	EN ISO 13857:2020	Sicherheitsabstände gegen das Erreichen von Gefährdungsbereichen mit den oberen und unteren Gliedmaßen *Safety distances to prevent upper and lower limbs from reaching hazardous areas*
	EN ISO 13854:2019	Sicherheit von Maschinen – Mindestabstände zur Vermeidung des Quetschens von Körperteilen *Safety of machinery – Minimum gaps to prevent crushing of body parts*
	DIN EN ISO 14118:2018	Sicherheit von Maschinen – Vermeidung von unerwartetem Anlauf *Safety of machinery – Prevention of unexpected start-up*
	EN 60204-1:2019	Sicherheit von Maschinen – Elektrische Ausrüstungen von Maschinen *Safety of machinery – Electrical equipment of machines*

Bei einer Änderung dieser Maschine verliert diese Erklärung ihre Gültigkeit. Die speziellen technischen Unterlagen nach Anhang VII Teil A sind für die Maschine erstellt worden.

This declaration loses its validity if this machine is modified. The specific technical documentation in accordance with Annex VII, Part A has been prepared for the machine.

Hersteller:
Manufacturer
High Tech Grinding Systems Co., Ltd
Fujian Xingyi Intelligent Equipment Co., Ltd
Factory: NO.34, Juxian Road, AnPing Development Area, Jinjiang, China

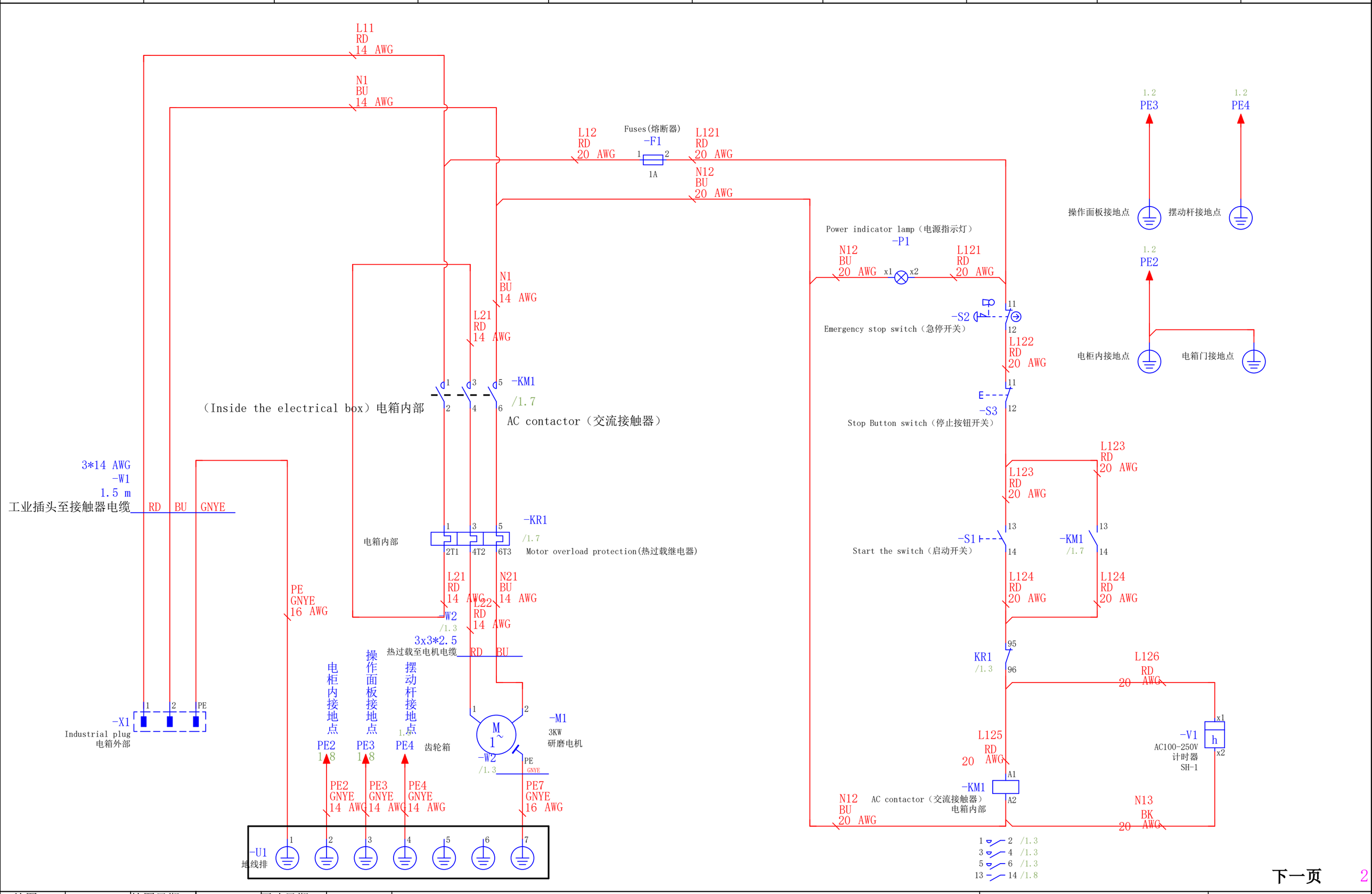
Exklusiver Vertriebspartner:
Exclusive distribution partner
HTG Europe GmbH
Im Fisserhook 7, 46395 Bocholt, Deutschland

Bocholt, 04.12.2025

HTG EUROPE GMBH
IM FISSERHOOK 7
46395 BOCHOLT | GERMANY

Peter Bußmann – HTG Europe GmbH - Managing director

Notes



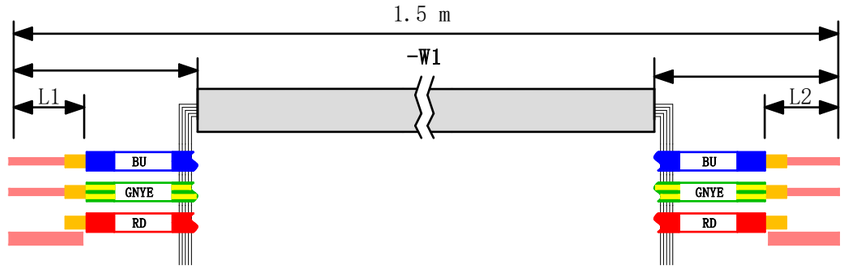
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绘图	黄小明	绘图日期	2023/10/6	更改日期	2025/11/14	HTG-250研磨机-1P220V-3KW-交流接触器-CE-V1.0.4-德国	电气原理图	=
校对		校对日期						+
审核		审核日期					IEC_tp1001	版本号：
批准		批准日期						当前页 1 / 页 1/3

电缆编号: =+-W1

电缆名称: 工业插头至接触器电缆

电缆规格: 3*2.5 mm²



位置代号	源	源功能文本	压线端子	L1 [mm]	部件编号
电箱内部	-KM1	AC contactor（交流接触器）			
	-U1:1	地线排			
(Inside the electrical box) 电箱内部	-KM1	AC contactor（交流接触器）			

电缆部件
订货编号

部件编号	L2 [mm]	压线端子	目标功能文本	目标	位置代号
			Industrial plug	-X1:2	电箱外部
			=	-X1:PE	电箱外部
			=	-X1:1	电箱外部

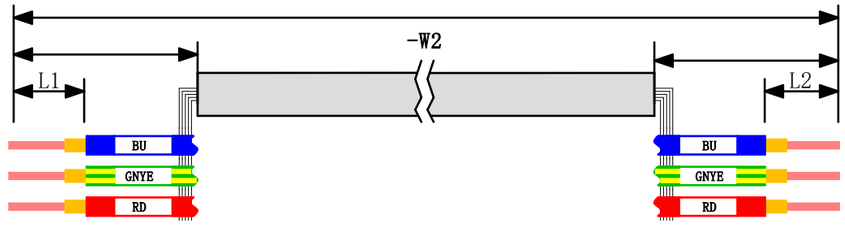
子端子排 - W1 - 001

			日期	2024/10/24	EPLAN	EPLAN Software & Service	电缆图表:W1		=
			校对	LENOVO	带 IEC 标准标识结构的项目模板:带有高层代号和位置代号的页结构				+
			审核					IEC_tp1001	页数 2
修改	日期	姓名	原始项目		替换	替换人			页 2/3

电缆编号: =+-W2

电缆名称: 热过载至电机电缆

电缆规格: 3*2.5 mm²



位置代号	源	源功能文本	压线端子	L1 [mm]	部件编号
电箱内部	-KR1	Motor overload			
	-U1:7				
电箱内部	-KR1	Motor overload			

电缆部件
订货编号

部件编号	L2 [mm]	压线端子	目标功能文本	目标	位置代号
			研磨电机	-M1:2	齿轮箱
			=	-M1:PE	齿轮箱
			=	-M1:1	齿轮箱

子端口说明 - 100.001

2

			日期	2024/10/24	EPLAN	EPLAN Software & Service	电缆图表:W2		=
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			审核					IEC_tpl001	页数 3
修改	日期	姓名	原始项目		替换	替换人			页 3/3

HTG EUROPE

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	Im Fisserhook 7 D-46395 Bocholt
	Revision 2 March 26, 2026

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