

HTG-680 SP Ultra



Exclusive distribution partner (Europe):

HTG Europe GmbH

Im Fisserhook 7, 46395 Bocholt, Germany

Phone: (+49) 2871 – 247580

Email: info@htgeurope.com

Manufacturer:

High Tech Grinding Systems Co., Ltd

Fujian Xingyi Intelligent Equipment Co., Ltd

Factory: No. 34, Juxian Road, AnPing Development Area, Jinjiang, Quanzhou City, Fujian Province,
China

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Revision Index			
Date	Rev.	Description of Change	Employee
03/30/26	1	User manual created	PB

This operating manual was created by HTG Europe GmbH. It was prepared 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.

Please contact:

HTG Europe GmbH Im
Fisserhook 7
46395 Bocholt, Germany
Phone: +49 (0) 2871 / 24 75 80
Email: info@htgeurope.com

Keep this operating manual handy near the machine. It must be included if the machine is sold.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



1 Contents

1	Contents	- 3 -
2	Notes on Reading	- 7 -
2.1	Intended Users of the Operating Instructions	- 7 -
2.2	Abbreviations, Synonyms, Symbols	- 7 -
2.3	Safety-related information	- 8 -
2.3.1	Overview	- 8 -
2.3.2	Safety Chapter	- 8 -
2.3.3	Warnings	- 8 -
2.4	External Documents.....	- 9 -
3	Security.....	- 10 -
3.1	Intended Use	- 10 -
3.2	Legal Regulations	- 12 -
3.2.1	Modifications.....	- 12 -
3.2.2	Applicable guidelines	- 12 -
3.2.3	Sales outside the European Economic Area	- 12 -
3.3	Safety instructions.....	- 12 -
3.3.1	By source of hazard.....	- 12 -
3.3.2	By life stage	- 14 -
3.3.3	By location of the hazard.....	- 18 -
3.4	Operator.....	- 19 -
3.5	Personnel.....	- 20 -
3.5.1	Description of User Groups	- 20 -
3.5.2	Access Restrictions	- 21 -
3.5.3	Personal Protective Equipment (PPE)	- 22 -
3.6	Safety concept	- 23 -
3.6.1	Markings on the machine and packaging	- 23 -
3.6.2	Emergency stop and emergency shutdown devices, main switch	- 24 -
3.6.3	Protective conductor, grounding, and equipotential bonding	- 25 -
4	Machine description	- 26 -
4.1	Scope of delivery	- 26 -
4.2	Technical data	- 26 -
4.2.1	Dimensions, weights, and volume of the machine	- 27 -

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



4.2.2	Environmental conditions.....	- 28 -
4.2.3	Noise emissions	- 28 -
4.2.4	Vibration.....	- 29 -
4.2.5	Power and Fuel Supply Electrical Power Supply.....	- 31 -
5	Design and Components	- 32 -
5.1.1	General view	- 32 -
5.2	Controls	- 33 -
5.2.1	Control panel on the control and operator console	- 33 -
5.2.2	Controls on the control box	- 36 -
6	Transport	- 38 -
6.1.1	Machine in Transport Position	- 38 -
6.2	Setting up the transport position	- 39 -
6.2.1	Installing the transport wheel	- 39 -
6.2.2	Adjusting the transport position of the weights	- 41 -
6.3	Preparing the machine for packaging	- 43 -
6.3.1	Packaging view and packaging dimensions	- 43 -
6.3.2	Raise the transport wheel	- 43 -
6.3.3	Move the weight to the working position	- 44 -
6.4	Transporting the machine.....	- 44 -
7	Assembly	- 46 -
7.1	Receiving the machine and removing the packaging.....	- 46 -
7.1.1	Connecting the vacuum cleaner hose	- 46 -
8	Start-up.....	- 48 -
8.1	Checklist before initial startup	- 48 -
8.2	Adjusting the machine's grinding position	- 48 -
8.2.1	Adjusting the working position of the weights.....	- 49 -
8.2.2	Position of the weights	- 49 -
		- 50 -
8.2.3	Adjusting the handle and the control console	- 52 -
8.3	Filling the water tank	- 54 -
8.4	Drive wheels with locking pins	- 55 -
8.4.1	Dust cover	- 57 -
8.5	Installing grinding tools.....	- 57 -
8.5.1	Disconnect the machine from the power supply.....	- 57 -

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



8.5.2	Tilting the machine	- 58 -
8.5.3	Installing grinding tools.....	- 60 -
8.5.4	Removing grinding tools.....	- 61 -
9	Operation.....	- 61 -
9.1	Switching on	- 61 -
9.2	Turning off	- 62 -
9.3	Adjusting the speed	- 62 -
9.4	Emergency stop	- 63 -
9.5	Emergency stop with safety strap	- 63 -
9.6	Display	- 64 -
9.7	Overload	- 64 -
10	Sanding with a machine	- 65 -
10.1	Description of the process	- 65 -
10.2	Drive the machine to the work site	- 65 -
10.3	Sloped surfaces	- 66 -
10.4	Dry sanding	- 66 -
10.5	Wet sanding	- 66 -
10.6	Grinding without feed drive	- 67 -
10.7	Grinding with feed drive	- 68 -
10.8	Grinding example: Direction of travel	- 69 -
11	Error handling	- 71 -
12	Maintenance.....	- 74 -
12.1	Maintenance Schedule	- 74 -
12.1.1	Daily	- 74 -
12.1.2	Monthly	- 75 -
12.1.3	Quarterly	- 75 -
12.2	Cleaning	- 75 -
12.3	Decommissioning	- 76 -
12.4	Storage	- 76 -
12.5	Restarting	- 77 -
13	Disposal.....	- 77 -
13.1	Dry grinding dust	- 77 -
13.2	Wet grinding slurry	- 78 -
13.3	Grinding dust containing asbestos	- 78 -

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



13.4	Other waste	- 79 -
13.4.1	Disposal upon permanent decommissioning and dismantling	- 79 -
14	Appendices for documentation	- 80 -
14.1	Nameplate.....	- 80 -
15	EC/EU Declaration of Conformity	- 81 -
	Notes.....	- 82 -

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



2 Notes on reading

2.1 Intended 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 680 RC 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
<i>Italics</i>	Name of a document, a key, a button, a switch
	This text provides additional information that is

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



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 warnings of imminent hazards
- As pictograms and warning text in the section "Labels on the machine and packaging"

2.3.2 Safety Chapter

This chapter contains general safety information to help you avoid hazards associated with the machine. The information is intended to promote 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 Warning

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 occur if the hazard is not avoided.
 WARNING	Indicates	Death or serious injury may occur if the hazard is not avoided.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



 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 applicability. This warning text describes the consequences.

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

The warning:

- appears in the running text or at the beginning of a step-by-step instruction.
- 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 impact. 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 External 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.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



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 or 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

Used 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 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 any resulting damage. The operator bears the risk.

If malfunctions occur during operation:

- Shut down the machine immediately.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- 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
 - Switch off immediately and allow to cool.
- operation without guards,
- mechanically or electrically bypassing 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. This includes:
 - 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

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



maintenance 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 to the machine may create new hazards. 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.

Only original spare parts or spare parts that meet the specifications of the original spare parts may be used during maintenance work. 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 Sale outside the European Economic Area

The manufacturer assumes no liability if the machine is sold outside the 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 380 V supply voltage. Touching live parts will result in a fatal electric shock.

- Have repairs performed only by qualified personnel.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- Before working on the machine, unplug the power cord and secure it so it cannot be plugged back in.
- Check the power cord and plug for damage before connecting.
- Replace any damaged cables immediately.
- Lock the control box after finishing 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 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.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



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 engineering

Slopes

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

See also the chapter on Sloped Surfaces

3.3.2 By life phase

The following apply 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 the work process. 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 may be crushed or scraped. Suspended loads may swing. Carelessness may result in the head being struck. Loads may fall or be set down inaccurately. Serious injuries to the feet and toes are possible.

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

Lifting equipment and transport vehicles

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



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 safety instructions

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

Load-bearing equipment and 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 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 arise during transport. Loads may shift due to vehicle movement.

- Select a transport vehicle of sufficient size based on the weight and dimensions.
- Secure loads on the transport vehicle using suitable 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 or components in walkways or in areas with limited visibility.
- Clean up tools after finishing work.

Commissioning

Before initial startup

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

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



- Carefully read the operating instructions, including the safety-related information, before first use. This knowledge will help you recognize dangerous situations and protect yourself and others.
- Do not start up 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 taken safety precautions and that hazards can be avoided during operation.

Operation, Use

People in the danger zone

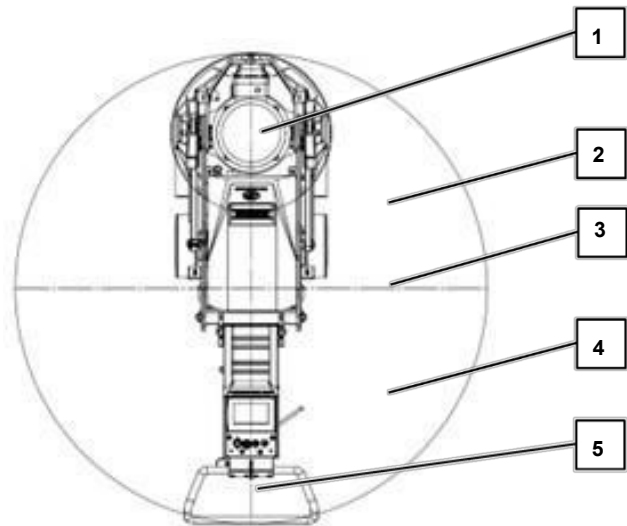


Fig. 1

Fig. 1 Hazard zones

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

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

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



Operator:

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

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

- Direct people to leave the danger zone within a radius of at least 2 m.
- 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 during operation.

Snagging of the power cord

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

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

If the power cord is caught in the machine:

- switch 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

Access by Unauthorized Persons

The machine is intended for users with specialized knowledge and who have received instruction. See chapter User Groups

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- Store the machine so that unauthorized user groups do not have access, e.g., locked in a room.

Disposal

Prevent Environmental Damage

The machine contains components or substances that can harm 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

The following 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 that they are functioning properly.

Frequency converter

Speed

The speed affects the grinding result. Different tools may require different speeds, which can be set manually. The parameter settings on the frequency converter are accessible only with a password.

- Only allow persons with password access to change the parameters on the frequency converter.
- Do not disclose the password to unauthorized persons.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



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 the best of current technology to minimize vibration intensity and noise levels as much as possible. In the event of abnormal:

- strong vibrations,
 - loud noises
 - immediately take the machine out of service and secure it to prevent 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 personnel read and understand the operating instructions, - instructs the staff before they begin work, - provides a printed 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 in the event of 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.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



- Seek professional medical treatment immediately after administering first aid.

3.5 Personnel

3.5.1 Description of user groups

Qualified personnel
...are specialists who, by virtue of their vocational training, professional experience, recent relevant work experience, or personal qualities, are capable of performing specialized tasks on the machine. They are assigned and instructed by the operator.
• 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.
...is instructed by the respective dealer prior to commissioning. The following qualified personnel are required for the operation of the machine:
• for work on the electrical equipment for setup and testing work • for maintenance and repair for troubleshooting • for transport, assembly, and disassembly work
Operators
...are persons who work with the machine in the grinding operation.
• 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 persons who perform tasks in the vicinity of the machine that are not related to its operation. This includes, for example, cleaning. Support staff are not permitted to operate the machine.
• can understand instructions, • can implement instructions while performing their tasks, • After receiving instruction, the trainee recognizes hazards and can respond in accordance with the guidelines.
Trainees

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



...are individuals who are 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 implement 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 contractors must be coordinated with internal staff 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 visual hazard signals.

- Remove unauthorized persons from the machine.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

3.5.3 Personal Protective Equipment (PPE)

Users' personal protective equipment includes:

PPE	When?	Pictogram
Safety helmet	For all activities	
Respiratory protection	- During operation: - Respirator with FFP2 filter - 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	

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

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	

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

Wear vibration-damping safety gloves	On the rack	
Wear insulated safety shoes	On the rack	
Markings for attaching the machine to suitable lifting equipment for transport.	Lifting points	
Note: Voltage: 380V 3P	Cover on the control box	
Warning: Water leakage	On the rack	

3.6.2 Emergency stop and emergency shut-off devices, main switch

Location	Location	Function
Main switch with emergency stop function	On the control panel	Immediately cuts off the power supply. ➤ Be aware of residual energy in the frequency converter
Emergency stop button	On the panel above the control box	Immediately stops dangerous movements. Immediately cuts off the power supply. ➤ Be aware of residual energy in the frequency converter

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

The emergency stop and emergency shutdown devices:

- are located in an easily accessible position,
- lock when activated,
- and have a direct effect.

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

➤ Check emergency stop and emergency shutdown devices regularly. Restarting after an emergency stop or emergency shutdown:

- Check the cause of the activation.
- If the cause is unclear, do not start the machine.
- Rectify the cause.
- Reset the emergency stop or emergency shutdown device.
- Start automatic operation.

During maintenance work, switch off the machine's main switch, unplug the power cord, and secure it 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.	

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



4 Machine description

4.1 Scope of delivery

The scope of delivery includes:

- a machine with cable and connector,
- dust protection tape,
- charger with charging cable,
- key for control box,
- safety lock

Not included in the scope of delivery:

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

4.2 Technical specifications

- Operate the machine within the limits specified in the technical data.

Designation	Value
Drive motor speed	650 — 1,950 rpm
Number of tool holders	3 or 4
Grinding head speed	300–900 rpm
Vacuum connection	Easy Connect 80 mm
Grinding contact pressure Front swivel weights without additional weights	325 kg

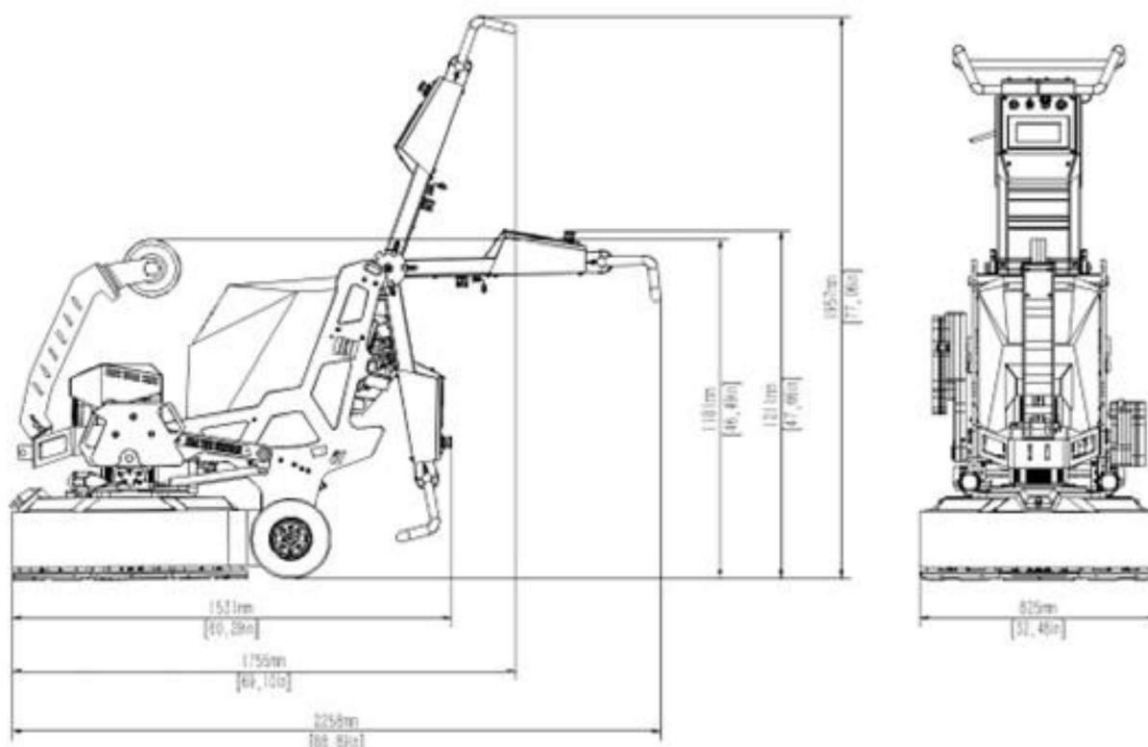
The sanding pressure can be increased using suitable additional weights.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

4.2.1 Dimensions, weights, and volume of the machine

Fig. 2 Machine dimensions



Designation	Value
Dimensions in grinding position W x L x H	696 mm x 2,063 mm x 1,255 mm
Dimensions, handle in upper position W x L x H	696 mm x 1,683 mm x 1,802 mm
Dimensions in transport position	696 mm x 1,407 mm x 1,255 mm
Maximum dimensions	696 mm x 2,402 mm x 2,091 mm
Grinding wheel, diameter	230 mm
Tool holder, diameter	230 mm
Grinding width of the machine	680 mm
Total weight, empty	580–590 kg
Water tank capacity	25 L

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



4.2.2 Environmental conditions

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

4.2.3 Noise emission

The grinder produces significant noise when in operation. This depends on:

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

Measured values

Measured variable	Designation	Value	Measurement uncertainty	Reference standard
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

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



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 employer is required to regularly monitor noise levels in the workplace and, if necessary, implement organizational protective measures

📄 Directive 2003/10/EC.

- Wear hearing protection at noise levels of 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.

4.2.4 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

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



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	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 specified vibration values 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 required 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.

Operators

- To reduce vibration exposure, observe the following measures:
 - Regularly check grinding tools for imbalance, wear, or damage and replace them in a timely manner.
 - Always guide the machine with both hands in a controlled manner.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



- Wear vibration-damping gloves.
- Limit work intervals and take regular breaks.
- Apply grinding pressure evenly and do not use excessive force.
- Ensure a stable, level working surface.

4.2.5 Maintenance with power and Operating fluids Electrical power supply

Designation	Value
Mains voltage	380 V / 3-phase, neutral, protective earth
Rated power	11 kW
Rated current	20 A
Input frequency	50 / 60 Hz
Frequency converter	11 kW
Electrical connection	CEE 32 A — 380 / 400 V

The machine is connected to the power supply via a connection cable. The supply voltage is 380 V.

- Use the machine only with the control box closed.

After switching off 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.

Battery for maneuvering

The machine is equipped with a battery. It provides a voltage of 24 V. The battery powers only the drive wheels. It can be activated as a maneuvering aid, e.g.: During maneuvering:

- to another location.
- As a means of transport.

It is not intended or suitable for soil cultivation. The battery charges:

- automatically when the machine is connected to the 380-V internal power supply. Or:
- via the charger connection on the machine. The

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



advantage is that no 32A power supply is required.
The charge level is displayed on the panel above the control box

Water for wet grinding

Designation	Value
Water tank, volume	25 L
Water quality	Municipal water

5 Structure and Components

5.1.1 General view



Item	Description	Item	Description
1	Water tank	2	Motor

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



3	Machine rack	4	Gearbox and grinding wheels
5	Front nozzle	6	Dust guard
7	Handle	8	Control panel
9	Control and operating console	10	Weights
11	Drive wheels	12	Headlights

5.2 Controls

5.2.1 Control panel on the guide and control console



Item	Description	Function
1	Handle	The ergonomically shaped handle of the grinder allows for secure guidance and ensures comfortable and precise handling even during longer

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

		work sessions.
2	Speed control for sanding 	Sets the speed of the tool heads within the range of 0 to 10 0 = Turtle icon: lowest speed 10 = Rabbit symbol: highest speed
3	Direction selector switch 	Three positions:  = Grinding direction counterclockwise 0 = Grinding drive off  = Grinding direction clockwise
4	Emergency stop button 	Stops dangerous movements immediately
5	Drive feed 	Three positions - Top = Feed in grinding direction - Middle = Feed out Bottom = Feed backward

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

6	Feed speed control 	Sets the feed speed in the range from 0 to 10 • 0 = Turtle symbol: lowest speed • 10 = Rabbit symbol: Highest speed
7	LED switch	Light on and off
8	Frequency converter display	Display of performance values
9	USB interface 	Digital access for display, support, and service access

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

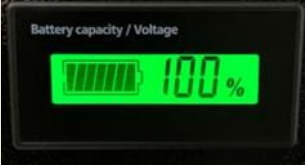
5.2.2 Controls on the control cabinet



Item	Description	Function
1	Main switch with emergency stop function	Turns the power supply on and off. Position 0: - All electrical components are de-energized. - There is voltage on the supply line leading to the main switch. - The frequency converter retains a residual voltage even after being switched off Position 1: - Voltage is applied to the electrical components.
2	Selector switch	Turns the water supply on and off

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

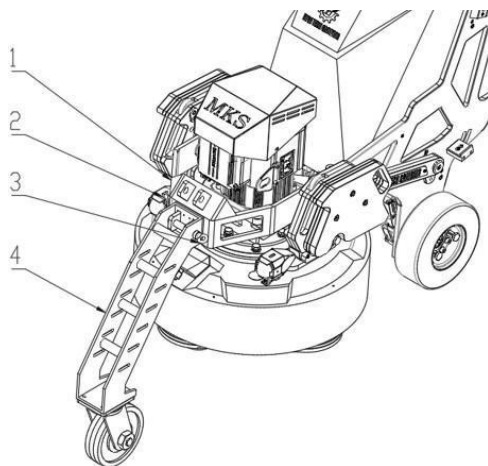
	Water supply	
3	Charging cable port	Charging port for charging the internal battery Use only with the original charging cable
4	Charging indicator 	Displays the charge level of the internal battery. • Solid yellow: Battery level <50% • Flashing yellow: Battery level 50–75% • Flashing green: Battery level 75–99% • Solid green: Battery level 100%
5	Battery indicator 	Displays the current battery level
6	Power indicator	Lights up when the machine is powered on
7	Exhaust filter	Provides fresh air supply to the control box
8	Lock	Keeps the control box closed. Can only be opened with a special key

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

6 Transport

To make it easier to move the machine, it is delivered with a transport wheel. This is attached to the machine by hand and locked in place.

6.1.1 Machine in transport position



Transport wheel in mounted position

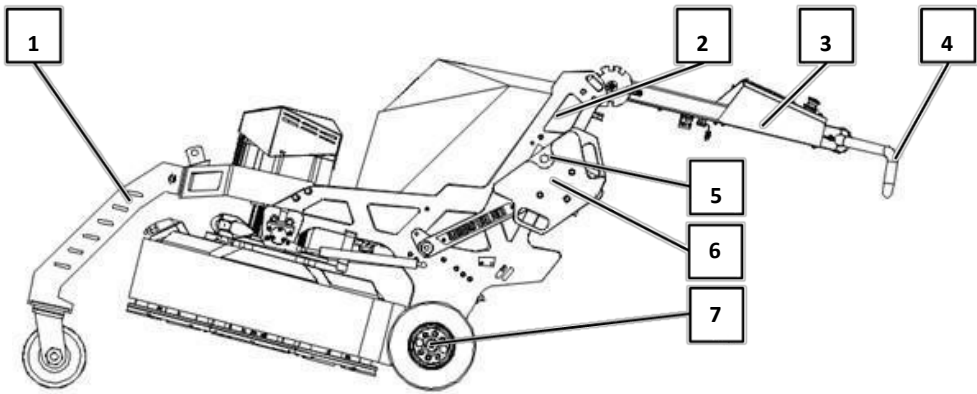
Pos.	Designation	Pos.	Description
1	Front support frame	2	Retaining pin
3	Bolt	4	Transport wheel

The transport wheel is mounted for moving the machine to the work site. This lifts the grinding tools off the ground and protects them from damage. The machine is easier to move to the new work site.

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



6.2 Set up transport position



Item	Description	Item	Description
1	Transport wheel	2	Rack
3	Control and operator console	4	Handle
5	Locking pin	6	Weight in transport position
7	Drive wheel with locking pin	-	-

c.2.1 Installation of the transport wheel

1. Tilt the machine

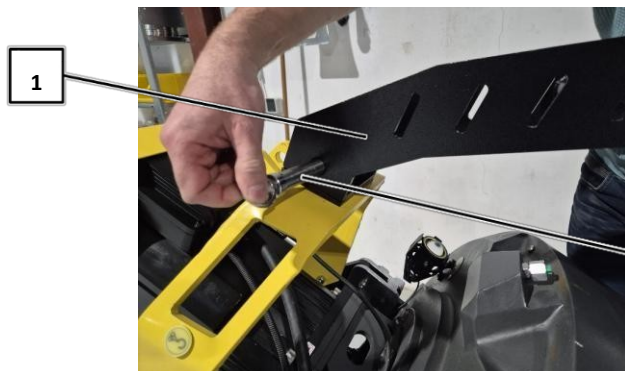


Item	Description
1	Transport wheel
2	Rack

2. Hook in the transport wheel.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Item	Designation
1	Transport wheel
2	Rack

3. Connect with bolts.



Item	Description
1	Transport wheel
2	Bolt
3	Locking pin

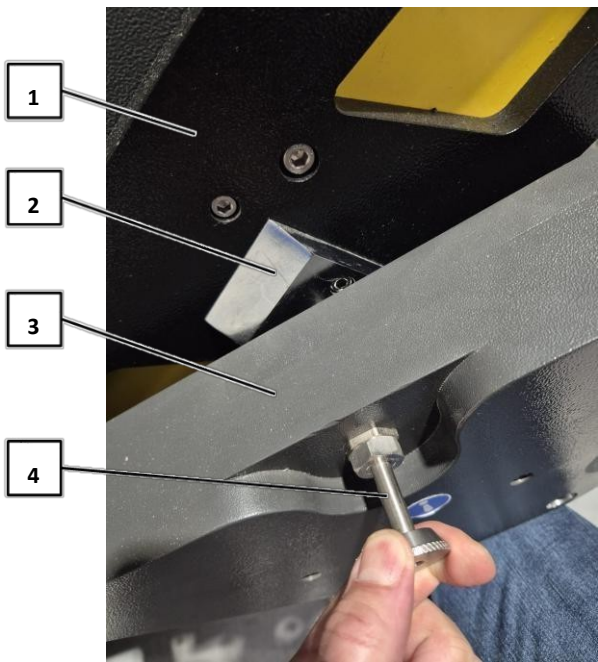
4. Secure with a locking pin.
5. Erect the machine.

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



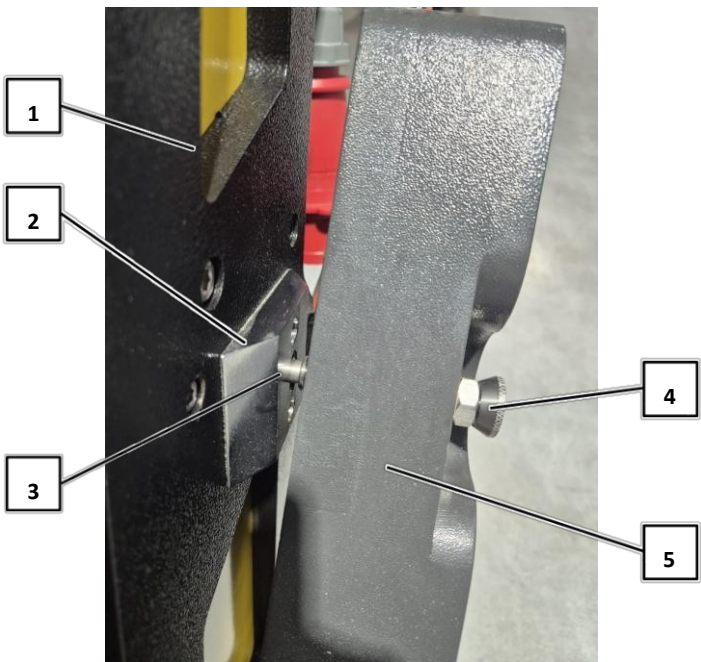
6.2.2 Setting the transport position of the weights

1. Grasp the weight.



Item	Description
1	Machine frame
2	Locking block
3	Weight
4	Locking pin

2. Pull and hold the locking pin
3. Move the weight to the transport position

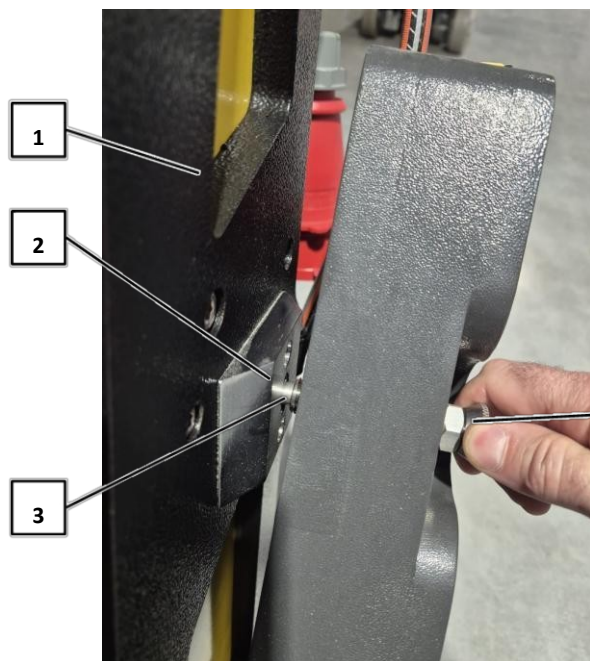


Item	Description
1	Machine frame
2	Locking block
3	Weight
4	Locking pin
5	Weight

4. Snap the locking pin into place on the rack.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Item	Description
1	Machine frame
2	Locking block
3	Weight
4	Locking pin engaged

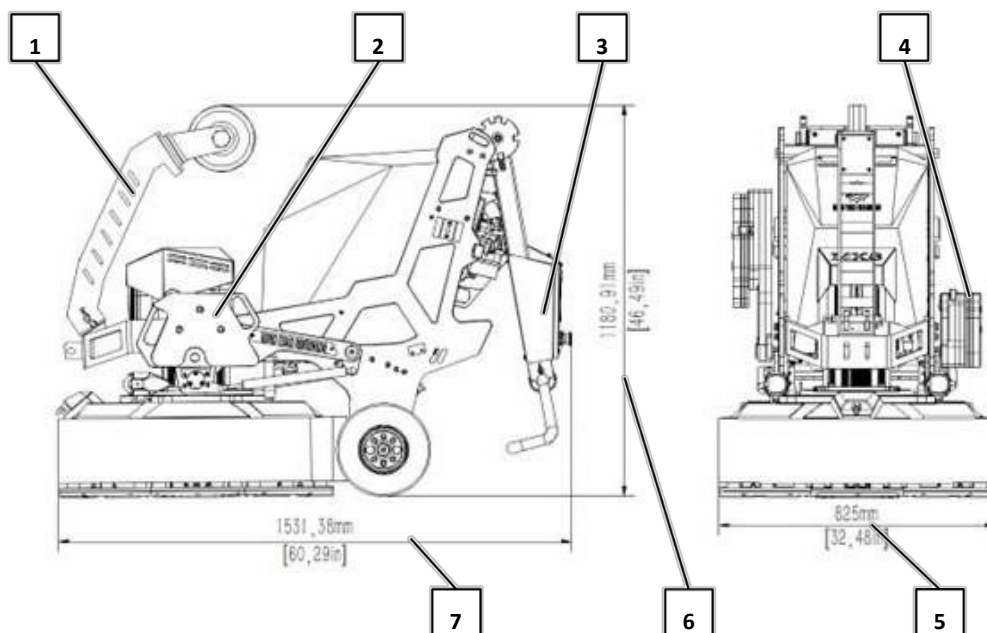


- Release the weight. The transport position of the weight is set. The machine's center of gravity is slightly offset beyond the drive wheels.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

6.3 Prepare the machine for packaging

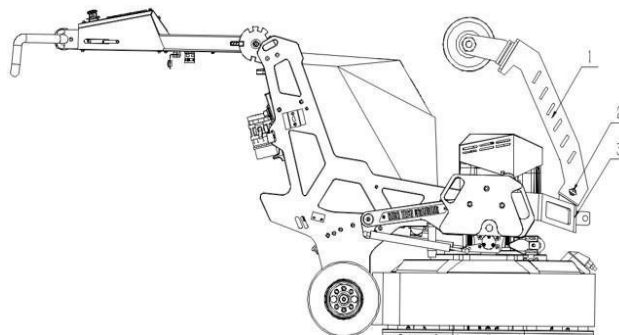
6.3.1 Packing view and packing dimensions



Package view and dimensions of the machine

Item	Description	Item	Description
1	Transport wheel	2	Weight in working position
3	Control and operating console with handle	4	Weight in retracted position
5	Pack width approx. 852 mm	6	Pack height approx. 1,181 mm
7	Pack length approx. 1,532 mm	-	-

6.3.2 Raise transport wheel



Side view of transport with transport wheel raised

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

Item	Designation	Item	Description
1	Transport wheel	2	Bolt with retaining pin
3	Support frame	-	-

- Unplug the power cord and secure it so it cannot be plugged back in.
- Attach the transport wheel and hold it in place.
- Insert the bolt →.
- Insert the safety pin.
The transport wheel is raised and secured.

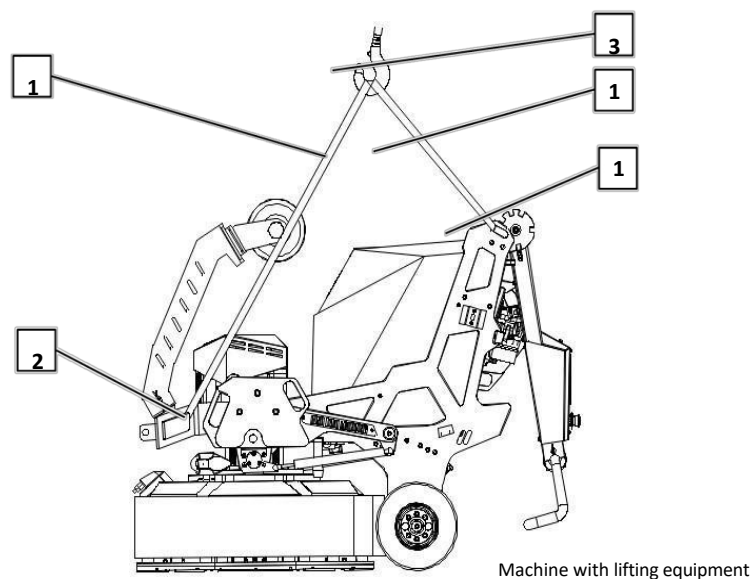
6.3.3 Move the weight to the working position

Placing the weights in the working position shifts the machine's center of gravity. The machine:

- Can be loaded more easily.
- stands more securely on the transport vehicle.

6.4 Transporting the machine

Lifting the machine



Item	Description	Item	Description
1	Hoisting device	2	Lifting eyes in the area of the motor, 2 pieces
3	Crane hook	4	Hoist
5	Lifting eyes on the rack	-	Center of gravity

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



Secure the load

- Ensure that the load capacity of the crane hook and lifting equipment is sufficient for the machine's weight.
- Have two lifting devices and a crane ready.
- Use undamaged lifting slings and lifting eyes.



- Pass one hoist through two lifting eyes in the machine frame near the motor.
- Pass the second lifting device through two lifting eyes on the rack.
- Hook the lifting devices onto the crane hook.
- Check the positioning of the hoists.
- Lift the machine slightly and check the load distribution. The load must not tip over when slightly lifted.

Loading the machine

- **DANGER** The load may fall and cause serious or fatal injury to persons.
- Do not stand under suspended loads.
- Raise the load slightly.
- Check the positioning of the lifting equipment and the load distribution. When lifting over high obstacles:
 - Use ropes that are sufficiently long and suitable.
 - Adjust the lifting height of the load according to local conditions.
 - Check the lifting height, swing, and/or travel range.

Cranes:

- Lift the load with the crane and place it in a transport crate.
- Depending on:

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



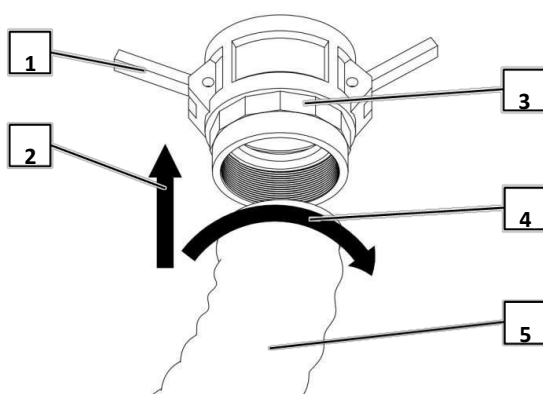
- the expected transport route and
 - external conditions
- , protect the machine from moisture on all sides.
- Secure the machine in the transport crate.
 - Seal the transport crate.
 - Transport crate:
 - Lift using lifting equipment at the lifting points and place on the transport vehicle.
 - Secure against slipping and tipping.

7 Installation

7.1 Unpack the machine

- ⚠ 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.
- Contact the dealer if you have any questions

7.1.1 Connect the vacuum cleaner hose



Connecting the vacuum cleaner hose

Item	Description	Item	Description
1	Clamping bracket	2	Insertion direction Vacuum cleaner hose

Original Operating Instructions

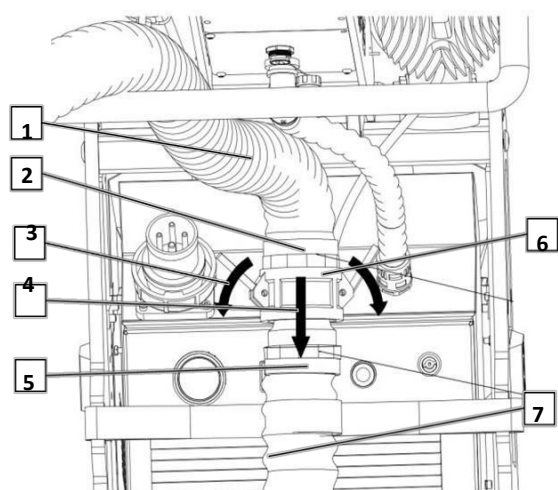
HIGH TECH Grinder HTG-680SP Ultra

3	Quick-release fastener Vacuum cleaner side	4	Direction of rotation of the vacuum cleaner hose
5	Vacuum cleaner hose	-	-

Screw the vacuum cleaner hose into the quick-release coupling on the vacuum cleaner side.

! Property damage

- Do not pull the machine by the suction hose.
- Always hold the machine by the handles and grips provided.



Vacuum cleaner hose connection – 2

Item	Description	Item	Description
1	Vacuum cleaner hose	2	Quick-release coupling Vacuum cleaner side
3	Closing direction of the clamping bracket	4	Attachment direction of the quick-release fastener on the vacuum cleaner side
5	Quick-release fastener Machine side	6	Closure direction of the clamping bracket
7	Machine suction hose	-	-

- Place the quick-release fastener on the vacuum cleaner side onto the quick-release fastener on the machine side and screw them together.
- Close both clamps.
The vacuum hose is secured to the machine.

8 Commissioning

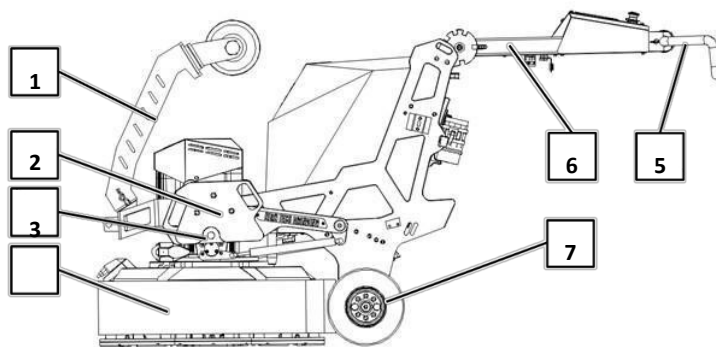
8.1 Checklist before initial startup

- Visual inspection
- Test the emergency stop
- Check safety systems

8.2 Set the machine to the sanding position

Move the machine into the grinding position. This involves: CAUTION: Do not grind with the transport wheel lowered.

- Raise the transport wheel
- Alternatively, the transport wheel can also be removed.
- Adjust the handle
- Adjust the guide and control console
- Weight in working position
- Mount the tool
- Filling the water tank



Machine with feed wheel in grinding position

Item	Description	Item	Description
1	Transport wheel	2	Weight in working position
3	Locking pin	4	Drive with gearbox
5	Handle	6	Control and operating console
7	Drive wheel with locking pin	-	-

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

8.2.1 Adjust the working position of the weights

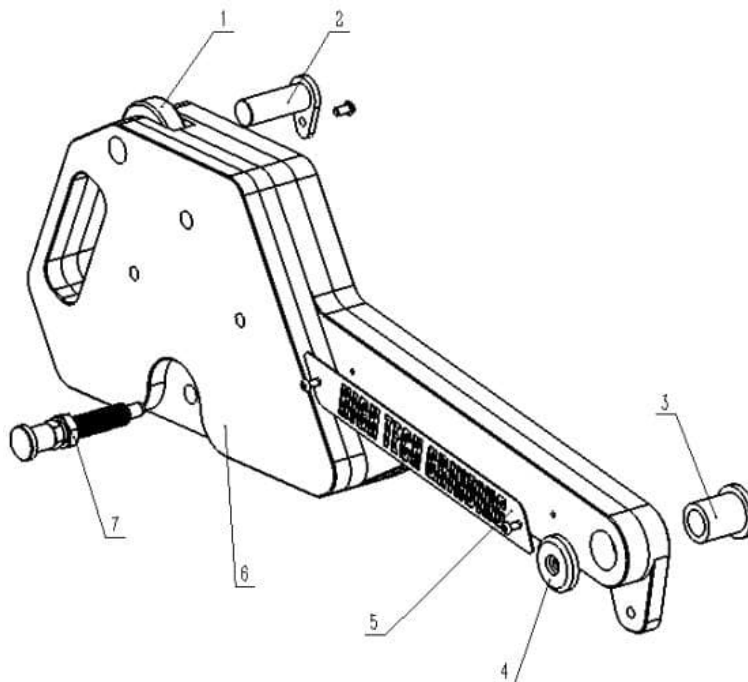
Grasp the weight.

- Pull the locking pin and hold it in place.
- Move the weight into the working position.
- Snap the locking pin into the fixed block on the rack.
- Release the weight.

The center of gravity is positioned over the grinding discs. This increases the pressure on the floor surface being processed. The machine grinds evenly and intensively.

8.2.2 Position of the weights

Weight with locking pin



Pos.	Designation
1	Support roller
2	Axle pin
3	Bushing, copper
4	Cover
5	HIGH TECH GRINDING
6	Weight
7	Locking pins

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



The machine has one weight on each side with an identical design. Each weight is permanently mounted on a swiveling arm. The weights are used to shift the machine’s center of gravity. The weights can be adjusted and locked into three positions.

Positions



Weight positions

Pos.	Description	Item	Description
1	Tilt position	2	Grinding position
3	Transport position	-	-

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



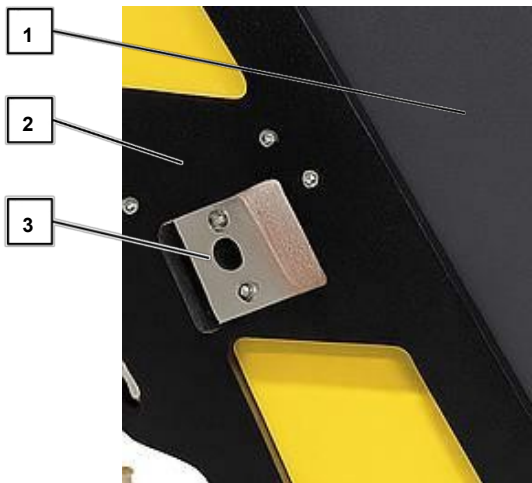
When adjusting a position, always move both weights to the desired position

Fixing points and locking pins on the weight



Item	Description
1	Weight
2	Mounting point for locking pin
3	Drive wheel

Fig. 7 Fixing point for the locking pin – tilted position

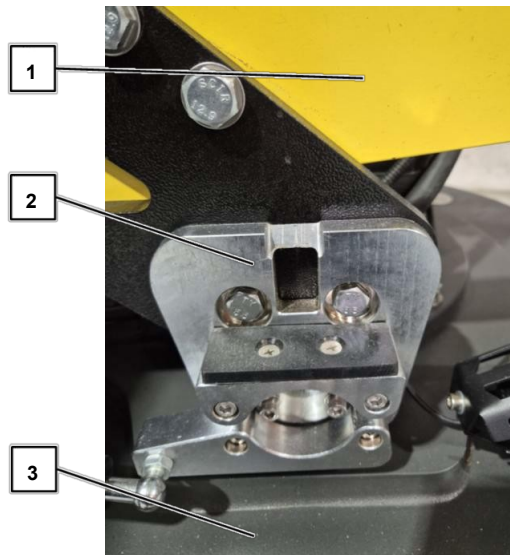


Item	Description
1	Water tank
2	Control and operator console
3	Mounting point for locking pin

Fig. 8 Fixing point for the locking pin – transport position

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Item	Description
1	Mounting bracket for transport wheel
2	Fixing point for locking pin
3	Gearbox area

Fig. 9 Fixing point for the locking pin – grinding position

8.2.3 Adjusting the handle and the guide and control console

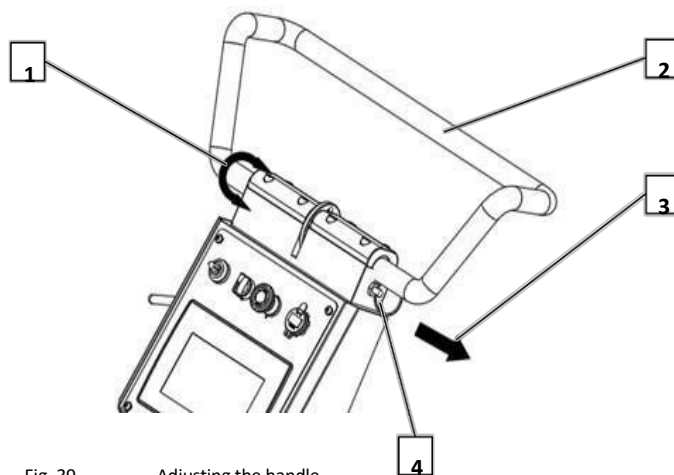


Fig. 39 Adjusting the handle

Pos.	Designation	Pos.	Description
1	Swivel movement of the handle	2	Handle
3	Pull direction of the adjustment pin	4	Adjustment pin

The handle can be adjusted to the operator's ergonomics in several positions. Position the handle:

- Hold the handle.

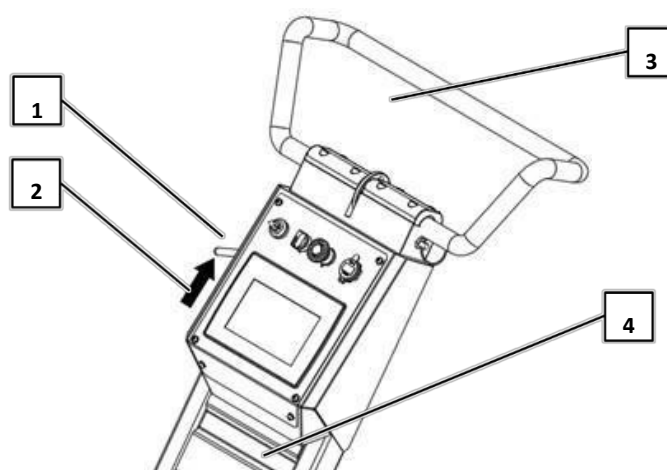
Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

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

If the adjustment pin does not immediately slide into the round hole on its own:

- Gently shake the handle.
- Gently wiggle the adjustment pin, but do not pull it out or force it into the round hole.

Control and operating console



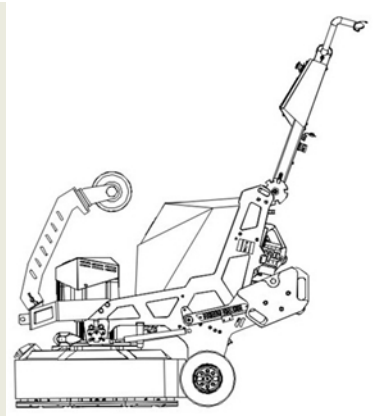
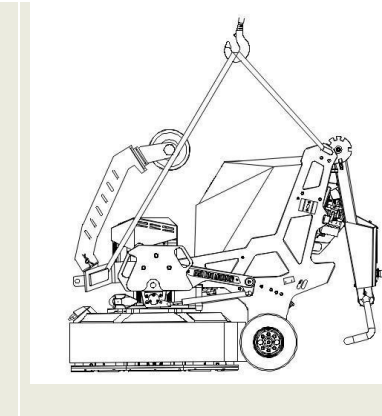
Adjusting the Control and Operator Console

Item	Designation	Item	Description
1	Adjustment knob	2	Direction of travel of the control lever
3	Handle	4	Control and operating console

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

The control and operating console can be adjusted to several positions:

Maximum upper position	Middle position	Lowest position
		
Example: in preparation for the tilting position	Example: in working position	Example: in transport position

⚠ WARNING: The detached control and operating 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 control and operating console to the desired position.
- Snap the adjustment handle into place.

8.3 Filling the water tank

Filling the water tank is only necessary for wet grinding.

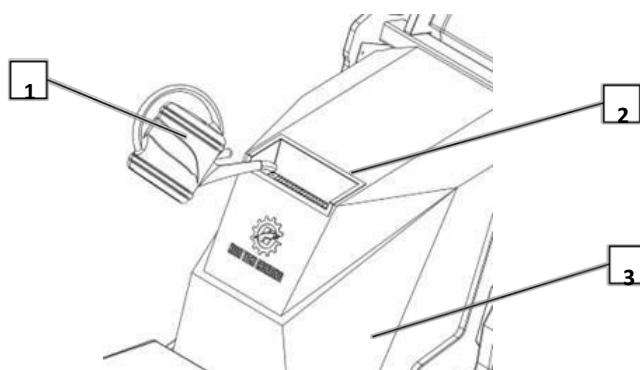


Fig. 41 Filling the water tank

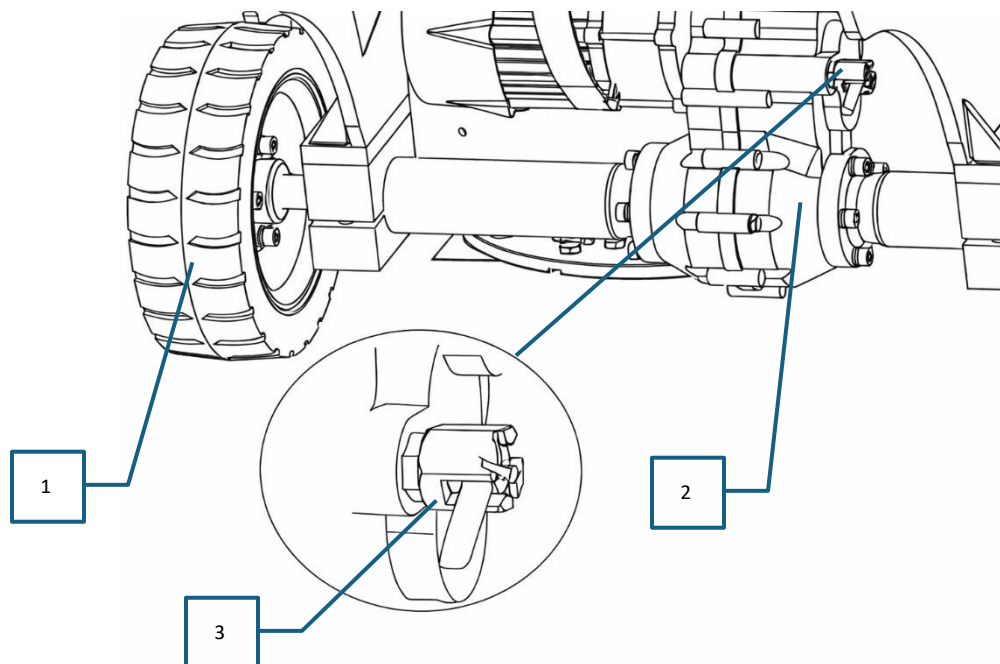
Item	Designation	Item	Description
1	Watering can	2	Filling opening
3	Water tank	-	-

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

 Use the watering can to fill the water tank with tap water. The water tank has a maximum capacity of 25 liters.

8.4 Drive wheels with locking pins

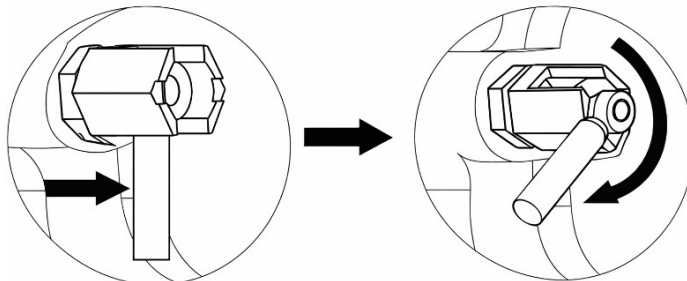


Item	Description	Item	Description
1	Drive wheels	2	Drive motor
3	Locking pin	-	-

The machine has a drive wheel on each side. By locking the locking pin, the sander can be moved motorized via the feed switch. If the locking pin is not engaged, the machine can be moved by hand.

Unlock the locking pin

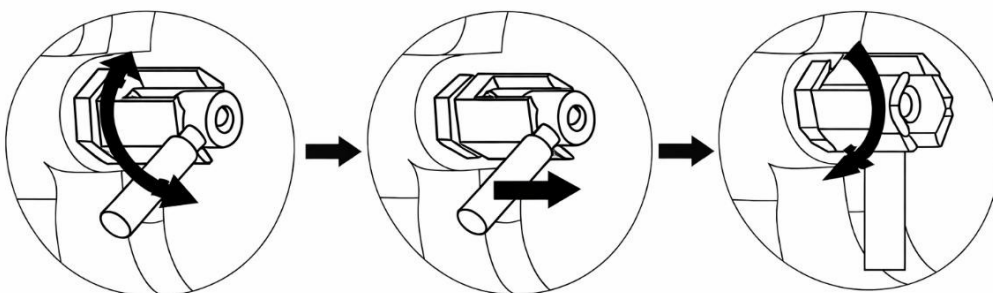
Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



1. Pull the locking pin
2. Rotate the locking pin or locking sleeve 90°
3. Release the locking pin
4. The locking pin is now in the groove of the locking sleeve

The machine's drive no longer acts on the drive wheels. The machine can be moved by hand.

Lock the locking pin



1. Pull the locking pin
2. Rotate the locking pin or locking sleeve 90°
3. Release the locking pin
4. The locking pin now rests on the locking sleeve

The machine's drive now acts on the drive wheels. The machine can be moved using the feed switch

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

8.4.1 Dust protection



Fig. 20 - Dust guard

Item	Description
1	Gearboxes and grinding wheels
2	Dust cover

The dust guard prevents dust from escaping during operation.

- Install the dust guard before starting work.

8.5 Mounting Grinding Tools

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

ATTENTION: Numerous different grinding tools and systems are available on the European market. HTG Europe therefore supplies each grinding machine individually with the tool holders that meet the requirements of the respective customer.

When installing and using the grinding tools, **always** follow **the instructions and installation guidelines** provided **by the respective tool manufacturer**. This is the only way to ensure safe operation of the machine.

HTG Europe GmbH assumes no liability for damage, hazards, or malfunctions caused by incorrectly installed or non-approved tools.

8.5.1 Disconnect the machine from the power supply

- Unplug the power cord and secure it to prevent it from being plugged back in.
 - ⚠ **DANGER.** High voltage is still present in the frequency converter after the power plug has been unplugged. Touching electrical components is fatal.
- Do not touch electrical components.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- Wait until the indicator light goes out. The machine is de-energized.

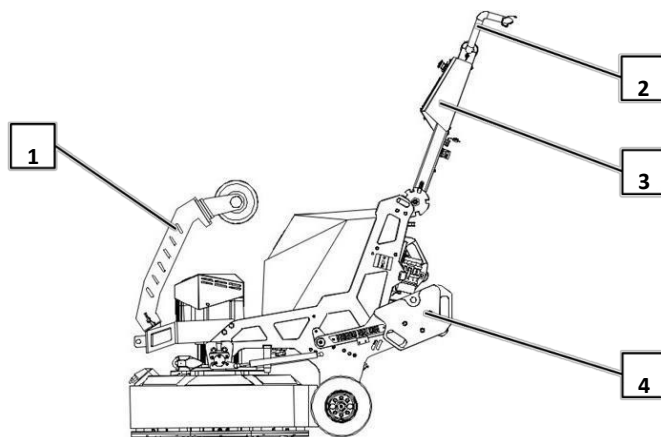
8.5.2 Tilt the machine

Move the weight to the tilting position

- Grasp the weight.
- Pull and hold the locking pin →.
- Move the weight to the tilting position.
- Engage the locking pin.
- Release the weight.

The center of gravity is behind the wheels and stabilizes the subsequent tilted position.

Position the control console and handle vertically



Machine with vertical control and operator console

Item	Description	Item	Description
1	Transport wheel	2	Handle
3	Control and operating console	4	Weight in tilted position

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

Tilt machine



Item	Designation	Item	Description
1	Work area for tool change	2	Drive wheel
3	Weight in tilted position	4	Control and operator console

WARNING Risk of tipping on uneven ground.

- Tilt the machine only on level ground.
- Do not place any objects underneath.
- After tilting, check the stability of the tilted position.

If the tilting instructions are followed, the machine will remain stable and secure in the tilted position.

Procedure:

⚠ WARNING The machine is tipped by hand. Tipping requires considerable force. Strain is possible.

- If necessary, enlist the help of a second person to tilt the machine, who should also grip the handle and assist in tilting the machine.
- Instruct personnel.
- Grasp the handle.
- Place one foot on the weight.
- The machine:
 - Press the handle firmly toward the floor.
 - Place the handle on the floor. The machine is in a tilted position.
 - Check the machine for stability.

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



8.5.3 Install the grinding tools

⚠ CAUTION: Hot surface. The grinding tool may be hot immediately after use.

- Allow the grinding tool to cool.

Installing Grinding Tools Step 1:

- Disconnect the machine from the power source
- Tilt the machine
- Light the work area.
- If present, thoroughly remove dirt, grinding dust, and chips from the tool holders using a hand brush and vacuum cleaner.

Step 2:

- Use grinding tools in accordance with the manufacturer's instructions.
- The grinding tools must be:
 - symmetrical,
 - secure, and
 - fitin the tool holders.
- Grasp the machine by the handle and swing it back to the working position.

Start up the machine after tool installation

- Move the machine to the working position.
- Unlock the emergency stop switch.
- Plug in the power cord.
- Turn on the machine.
- Start the motor using the ON-OFF switch in the direction of rotation.
- Set the speed control to 1.
The motor runs at the lowest speed. The tool movement starts.
- Check tool movement.
- If any of the following occur:
 - unusual noises,
 - vibrations,

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- imbalances.

Turn off the machine and disconnect the power supply.

- Check the installation of the grinding tools.

8.5.4 Remove the grinding tools

- Disconnect the machine from the power supply
- Tilt the machine
- Illuminate the work area.
- Carefully loosen the grinding tool, depending on the type of grinding tool used, with:
 - rubber mallet or
 - a flat-blade screwdriver.
- Dispose of worn grinding tools according to the manufacturer's instructions.

6 Operation

WARNING:

- Uncontrolled movements of the machine are possible
- Always hold the machine by the handle

6.1 Turn on

Step 1:

- ⚠ Move the machine into the working position
- ⚠ Plug in the power cord.
- ⚠ When dry sanding, connect a vacuum cleaner and turn it on
- ❗ The vacuum cleaner is not part of the machine described in this operating manual.
- Follow the manufacturer's instructions.
- For wet sanding, fill the water tank

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

- Check that the grinding direction selector switch is set to "0".

Step 2:

At the control box:

- Turn on the main switch.
The machine starts up. The current machine parameters are displayed on the screen.

At the control panel:

- Set the speed for the grinding wheel drive using the speed controller.
- The machine starts when the grinding direction is selected on the selector switch.

- For wet grinding, turn on the front sprayer.

Step 3:

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



6.2 Turn off

Step 1:

On the control panel:

- Use the speed control to reduce the drive speed.
- Set the direction selector switch to "0".

Step 2:

- When dry grinding, turn off the vacuum cleaner.
- When wet sanding, turn off the water supply
- Turn off the main switch
- Unplug the power cord.

6.3 Adjust the speed

The speed of the grinding heads is adjusted using a potentiometer (pot).

- Adjustment range: **0 to 10 (scale)**
- Turn clockwise: **Increase speed**
- Turn counterclockwise: **Decrease speed**



Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



Procedure:

1. Turn on the machine and prepare it for operation
2. Slowly adjust the potentiometer to the desired value
3. The speed changes immediately

Note:

The actual speed depends on the parameters of the frequency converter.

6.4 Emergency stop

The machine is equipped with an emergency stop that allows for immediate shutdown in case of danger.

- Activate by pressing the emergency stop button
- All drives are stopped immediately.

Restart:

1. Eliminate the cause of the trip
2. Unlock the emergency stop (e.g., by turning)
3. Restart the machine



Warning:

The emergency stop must only be used in case of danger.

6.5 Emergency stop with safety strap

In addition, the machine is equipped with a safety belt (emergency belt).

- The safety strap is connected to a safety switch on the machine
- The other end is attached to the operator's wrist using a Velcro fastener

How it works:

- In an emergency (e.g., if the operator faints), the strap is disconnected from the switch
- This **immediately stops** the **feed drive**
- Uncontrolled movement of the machine is prevented

Important:

- **The grinding drive remains active**
- The safety belt must be properly fastened before starting work

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

- "The safety strap is **not an emergency stop device in accordance with EN ISO 13850**, but is intended solely to provide additional protection for the feed drive."



6.6 Display

The display is used to show the system's operating parameters.

The following values can be displayed:

- Speed of the grinding heads
- Frequency of the inverter
- Current of the inverter (A)
- Power of the inverter (kW)

Operation:

- Display is automatic or via selection on the control panel
- Switching between parameters depending on device configuration

Note:

The displayed values are for monitoring operation and may vary depending on the settings.

6.7 Overload

The motor is equipped with an overload protection device that automatically activates and prevents

- Do not make any unauthorized modifications.
The overload 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.



Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



10 Grind with the machine

10.1 Description of the process

Clear the area to be sanded.

Grinding tools are mounted in the tool holders. These are electrically driven and move in an oscillating motion. 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. The weight in the working position ensures high pressure on the surface to be ground, thereby improving the quality of the finish.

10.2 Transporting the machine to the work site

To facilitate transport of the machine and ensure quick movement to the desired work site, the machine is equipped with a motorized feed mechanism. This serves as an auxiliary drive; the operator remains responsible for guiding and controlling the machine.

The machine is equipped with a built-in rechargeable battery. When the battery is sufficiently charged, the machine can be operated without being connected to a power cord.

To move the machine to the work site, proceed as follows:

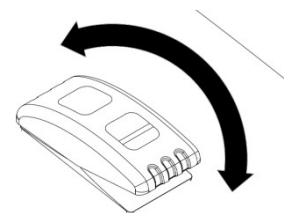
Step 1:

- Mount the transport wheel in the support position
 - Set the weights to the transport position
 - Set the handle and the control console to the working position
 - Lock the locking pin
- The drive acts on the drive wheels.

Step 2:

At the control box:

- Turn on the main switch.
- Set the feed switch for forward travel to the upper position.
- Set the feed switch for reverse travel to the lower position.
- Adjust the feed rate using the feed control.
- Guide the machine by hand so that you can intervene at any time.
-



Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



10.3 Sloped surfaces

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

- Check the slope before starting 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.

10.4 Dry sanding

⚠ WARNING: Dust hazard.

- Wear respiratory protection.

Dry sanding is

- fast,
- flexible,
- dusty

and for

- rough work,
- renovation work
- preparatory work.

To prevent dust from spreading around the grinding tool, a dust guard is mounted around the tools. In addition, 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.

Dry grinding is possible in remote control mode and in manual operation mode.

- Turn off the automatic water supply.

10.5 Wet grinding

Wet sanding is:

- clean,
- precise,
- slower than dry sanding.

and for:

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra

- fine grinding,
- polishing
- suitable for dust-sensitive environments.

The floor surface is sprayed with tap water. To do this, the machine's water tank is filled with tap water. Before starting to sand, the front sprayer is activated on the control panel. When sanding begins, the water supply is turned on via the control panel.

The floor area in front of the machine is moistened by a spray mist. As a result, dust generation is significantly reduced.

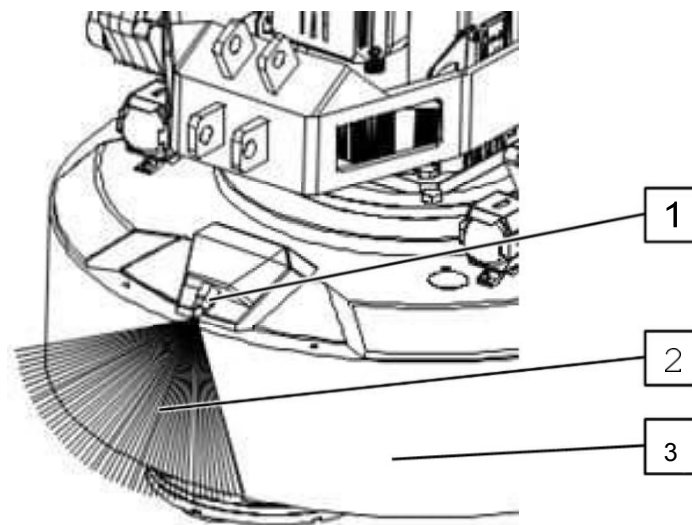


Fig. 17 Spray nozzle in the front area

Item	Designation	Item	Description
1	Spray nozzle	2	Splash water
3	Housing on the gearbox	-	-

Water spray continuously comes out of the spray nozzle.

10.6 Grinding without feed drive

When grinding without the feed drive activated, the machine is guided exclusively by hand. The operator grips the machine by the handle

and guides it in a controlled manner in the desired direction.

While doing so, the operator moves with an upright posture directly behind the machine. The feed is performed entirely by the

operator.

Notes:

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- Consistent pressure and smooth movements ensure optimal sanding results
- The operator is directly exposed to noise and dust emissions during operation
- The operator must maintain full control over the movement at all times
- Keep the power cord in sight at all times to prevent it from being run over or damaged

10.7 Sanding with Feed Drive

When grinding with the feed drive activated, the machine assists the forward movement.

The operator remains directly at the machine at all times and continues to guide it using the handle. The feed drive is intended solely to reduce the amount of force required and to make handling easier.

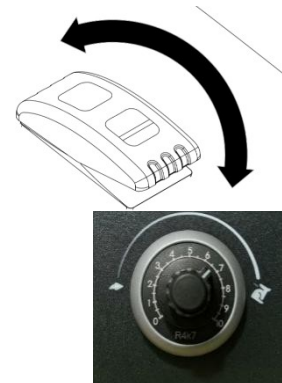
The operator moves with the machine and retains full control over direction and speed at all times.

Notes:

- The feed drive does not replace manual guidance of the machine
- The machine must be actively controlled by the operator at all times
- The operator is exposed to noise and dust emissions during operation
- Keep a close eye on the power cord at all times to prevent it from being run over or damaged

Turn on the feed drive

- Set the feed switch for forward travel to the upper position.
- Set the feed switch for reverse travel to the lower position.
- Adjust the feed speed using the feed control.
- Guide the machine by hand so that you can intervene at any time.



Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra

10.8 Grinding example: Direction of travel

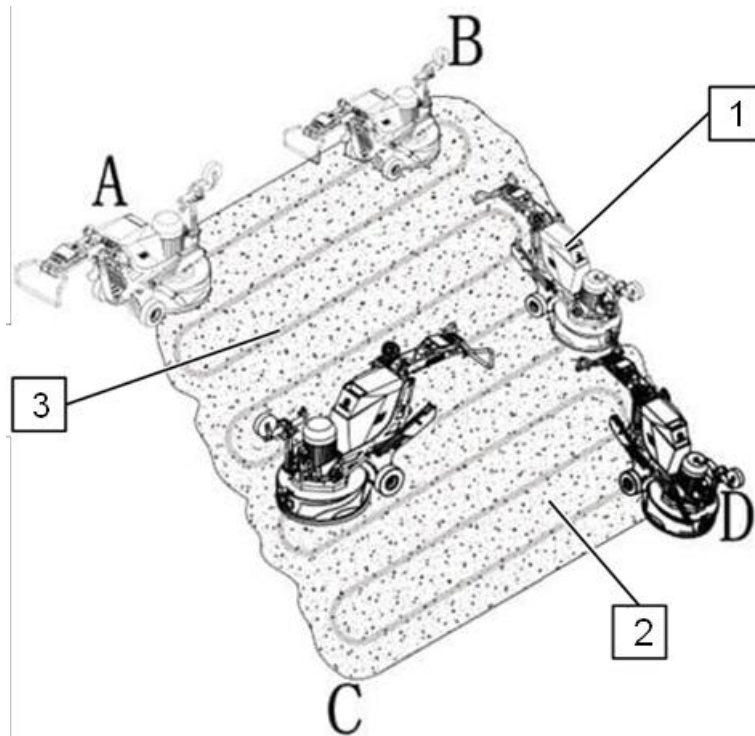


Fig. 18 Grinding path on wide surfaces

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

The machine is guided forward in passes across the surface to be processed. The passes are parallel and close enough together that the sanding marks overlap by approximately 20%. Approximately 400 mm to 600 mm before the edge of the surface, e.g., a

wall, the machine is turned around. When turning, the machine follows a curve. As a result, the machine moves 180° in the opposite direction.

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra

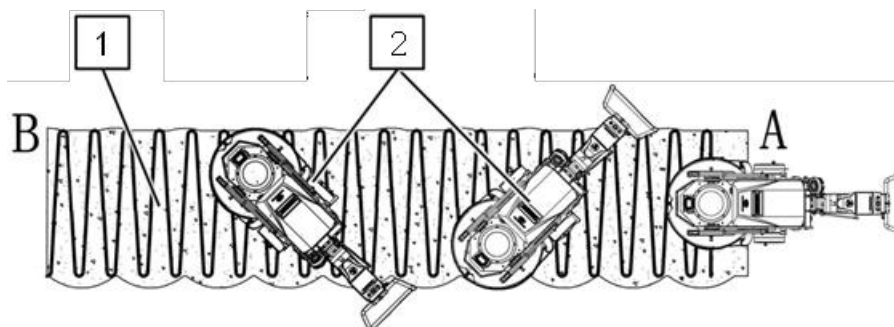


Fig. 19 Sanding path on narrow surfaces

Pos.	Designation	Pos.	Description
A	Start point	B	End point
1	Skid mark	2	Machine positions

Guide the machine forward in a right-to-left motion across the surface to be machined. As the machine reaches the edge of the surface, turn it so that the front faces the direction of travel without making a turn. While grinding, the operator moves slowly but steadily from point A toward point B. When working with the remote control, the movement is controlled using the remote control.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



11 Troubleshooting

- If errors cannot be resolved, contact your dealer.
- Before performing any work, disconnect the machine from the power supply and secure it against being switched back on

Fault	Possible causes	Remedy
Machine does not start	Power plug not plugged in	Check power connection
	Main switch is set to "OFF"	Set the main switch to "ON"
	Fuse tripped or No mains voltage	Check fuse
	Emergency stop activated	Unlock emergency stop
Overload	Excessive material removal or excessive contact pressure	Reduce grinding pressure, adjust speed
	Grinding tool is jammed	Check and clean tools
	Incorrect motor settings in the frequency converter	Contact the manufacturer
Overcurrent	Short circuit at the Motor connection	Check cable connections and insulation
	Damaged motor cable	
	Machine jammed or stuck tool	Check and clean tools
Input phase missing	Incorrect motor parameters in the frequency converter	Contact the manufacturer
	Mains voltage missing on one phase	Check power supply; all 3 phases
	Connection cable or Defective outlet	
Output phase missing	Defect in the frequency converter	Check motor-inverter connection, reset frequency converter; if error persists contact the manufacturer

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Frequency converter overheating	Continuous overload of the necessary, Motor	Allow the machine to cool down; if Adjust operating parameters Adjust
	Insufficient ventilation cabinet	Ensure air supply to the control Clean the ventilation slots
	Ambient temperature too	Let the machine cool down
	Fan is defective or dusty	FanCheck/Replace
Abnormal power consumption	Defective motor or with	Measure motor current and compare rated value
	Incorrect motor parameters in the drive	Check rated current and voltage parameters
	Short circuit or phase-to-phase short	
	Mechanical blockage in the drive system	Check mechanical parts for smooth operation
Irregularity in motor tuning	Motor tuning with incorrect	Motor tuning only (with) parameters unloaded engine Perform
	Machine not unloaded	motor parameterscheckand correct
	Sensor error or cable error	cableand Check feedback sensors
	Drive not matched to motor type	Automatically tuned if necessary Perform tuning again Perform
Engine runs rough or with interruptions	Grinding tools unevenly	toolscheck/replace moderately worn
	Voltage fluctuations	Check power supply
	Frequency converter malfunction parameters set	Contact manufacturer;
Grinding performance insufficient	Frequency converter faulty parameterized-	SuitableGrinding unittool select
	Incorrect tool selection	Replace tools

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



Dust extraction is not working	Worn tools	Adjust speed to material
	Speed set too low	Increase contact pressure
	Vacuum is turned off or not connected	Turn on the vacuum / check the 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
	Floor unevenness too severe	Adjust speed, guide machine smoothly
Frequency converter not working / Display dark	No mains voltage at the frequency converter	Check power supply
	Internal frequency converter error	Check the fuse in the control cabinet
	Control cable disconnected	Restart the frequency converter; replace if necessary
Fuse trips	Short circuit in the cable or motor	Check cable, connector, and motor
	Overload due to jammed tool	Check/replace tools
Machine is running, but no grinding effect visible	Wrong tool type	Select suitable tools
	Tool is worn	Replace tools
Excessive machine heating	Speed too low	Increase speed
	Grinding load too high	Reduce load
	Ventilation slots clogged	Clean the machine
	Frequency converter fan Failed	Check / replace fan

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



12 Maintenance

⚠ 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.

12.1 Maintenance Schedule

12.1.1 Daily

Component	Action
Check the switches and indicators	Turn on the machine. Check: • Check the functions of all switches and indicators • Power connection
Emergency stop switch	Turn the emergency stop switch to the release position and then press the start button. • Does the machine start up properly? Then press the emergency stop switch again. • Does the machine stop reliably?
Machine	Cleaning the machine • Blow off the machine with compressed air
Clean dust-collecting parts up to the connection to the vacuum cleaner	Unplug the power cord. Turn off the main switch. Remove any blockages.
Grinding tools and tool holders	Unplug the power cord. Turn off the main switch. Tilt the machine Grinding tools and tool holders Remove debris.
Battery	Check the battery capacity and charge if necessary
Dust cover	Check the dust cover for damage; replace if necessary

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



12.1.2 Monthly

Component	Function
Exhaust filter	Check for contamination
Wheels	Check that the wheels turn smoothly

12.1.3 Quarterly

Component	Task
Exhaust filter	Replace every 3 months G4 filter media in accordance with EN ISO 16890 Use
Transmission	Change oil

12.2 Cleaning

Cleaning interval:

- Daily after the workday Before each

cleaning:

- Unplug the power cord.
- Turn off the main switch.

Component	Action
Controls and displays	Clean the exterior with a brush if dirty. Contamination in the control box or control elements
Grinding disc cover	Remove the vacuum cleaner connection Shine a flashlight into the suction opening Remove dust from the extraction opening.
Grinding discs	Tilt the machine. Loosen the grinding tools using a suitable tool. Remove dust or sanding residue with a brush or a putty knife.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



Unplug the power cord from the fan opening on the control box

Unplug the power cord. Turn off the main switch. Clean the fan opening daily.
Have the interior of the fan opening cleaned by qualified personnel

External cleaning

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

12.3 Decommissioning

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

- suspended indefinitely or
- suspended for an extended period,

so that maintenance work according to the maintenance schedule and other monitoring measures are not performed.

The following measures 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 the machine 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 caused by deposits.
- Perform regular visual inspections.

12.4 Storage

Storage conditions

The storage location must meet the following conditions:

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



- dry at room temperature
- protected from the weather
- sufficiently solid ground
 - Weight → 4.1.3
- low dust generation.

If storage conditions are not observed, components may corrode or age prematurely. The service life of the machine will be reduced.

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.

12.5 Restarting

- Chapters 6, 7, and 8

13 Disposal

13.1 Dry grinding dust

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

- **WARNING:** Inhalation of grinding dust. Grinding dust may contain fine particles hazardous to health, such as 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.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



Dry grinding dust:

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

13.2 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.

Moist sanding 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 dry grinding dust.

13.3 Asbestos-containing grinding dust

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 performed 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 through authorized disposal facilities in accordance with the Hazardous Substances 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

Original Operating Instructions

HIGH TECH Grinder HTG-680SP Ultra



- AVV – Ordinance on the European Waste Catalogue.
- Do not allow moist grinding slurry containing asbestos to dry.

13.4 Other wastes

Designation	Disposal
Grinding tools	Legal requirements and manufacturer's instructions Observe.
Filter material	Depending on the dust being filtered See sections 11.4.1 through 11.4.3
Battery in the remote control	Dispose of in accordance with legal regulations. Do not dispose of in household waste.
Battery in the control box	

Depends on duration of use and floor material

13.4.1 Disposal upon permanent 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.

Original Operating Instructions HIGH TECH Grinder HTG-680SP Ultra



14 Documentation systems

14.1 Nameplate



Fig. 50 Nameplate, example

The nameplate lists the minimum specifications of the machine. The minimum specifications have been supplemented with connection data.

EC/EU Declaration of Conformity

in accordance with the Machinery Directive
2006/42/EC, Annex IIA



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.

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.

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	
Description:		
Complies with the following EC directives:	Machinery Directive 2006/42/EC EMC Directive 2014/30/EU	Machinery Directive 2006/42/EC EMC Directive 2014/30/EU
Complies with the following EC directives:		
In particular, it harmonized standards, in standards, particular: <i>Applied harmonized standards, in particular:</i>	EN ISO 13849-1:2023 EN ISO 12100:2011 EN ISO 13857:2020 EN ISO 13854:2019 DIN EN ISO 14118:2018 EN 60204-1:2019	Safety of machinery – Safety-related parts of control systems <i>Safety of machinery – Safety-related parts of control systems</i> Machine Safety – General design principles – Risk assessment and risk reduction <i>Safety of machinery – General principles for design – Risk assessment and risk reduction</i> Safety distances to prevent upper and lower limbs from reaching hazardous areas <i>Safety distances to prevent upper and lower limbs from reaching hazardous areas</i> Safety of machinery – Minimum gaps to prevent crushing of body parts <i>Safety of machinery – Minimum gaps to prevent crushing of body parts</i> Safety of machinery – Prevention of unexpected start-up <i>Safety of machinery – Prevention of unexpected start-up</i> Safety of machinery – Electrical equipment of machinery <i>Safety of machinery – Electrical equipment of machines</i>

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

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.

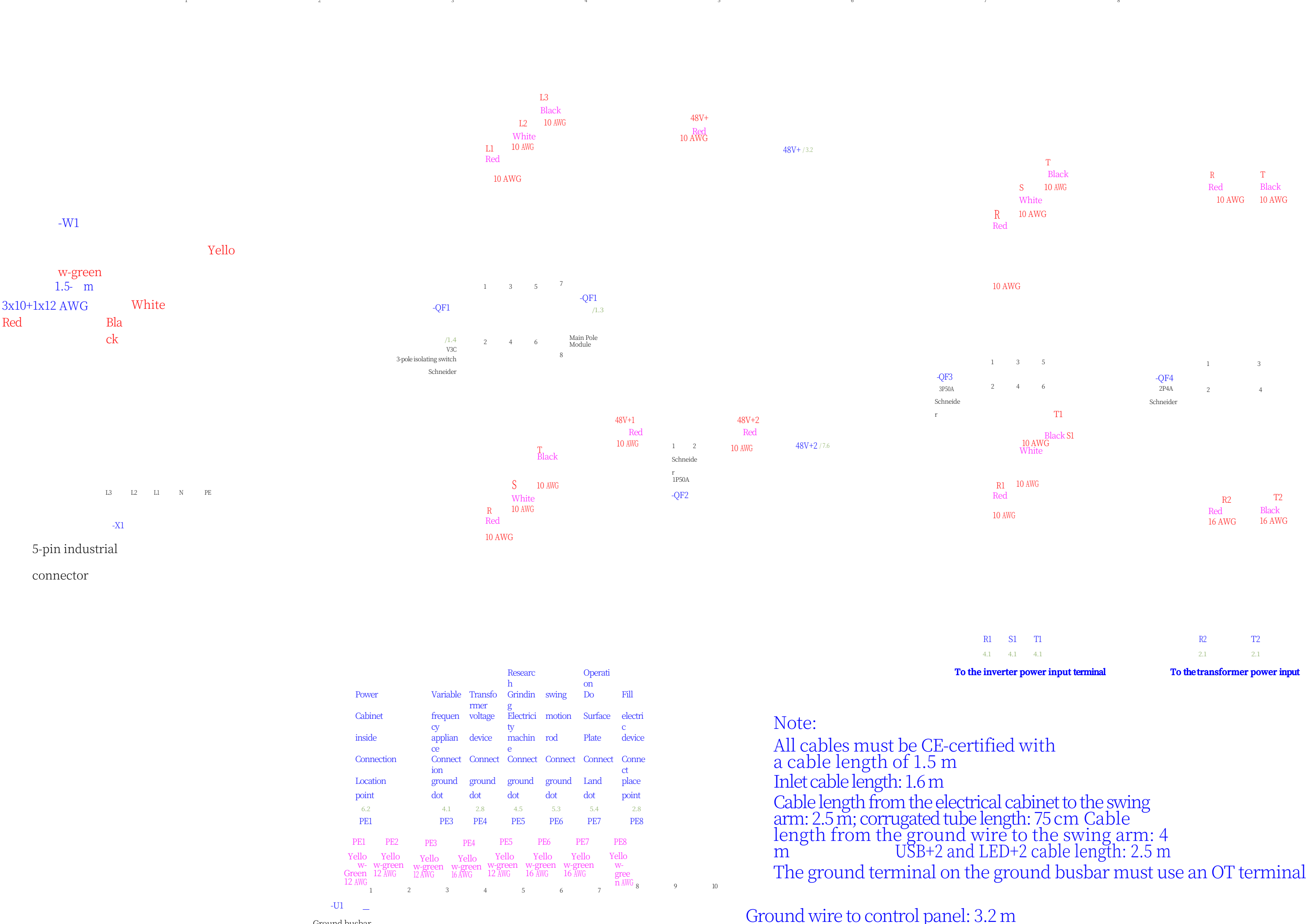
Manufacturer:
Manufacturer High Tech Grinding Systems Co., Ltd
Fujian Xingyi Intelligent Equipment Co., Ltd
Factory: No. 34, Juxian Road, AnPing Development Area, Jinjiang, China

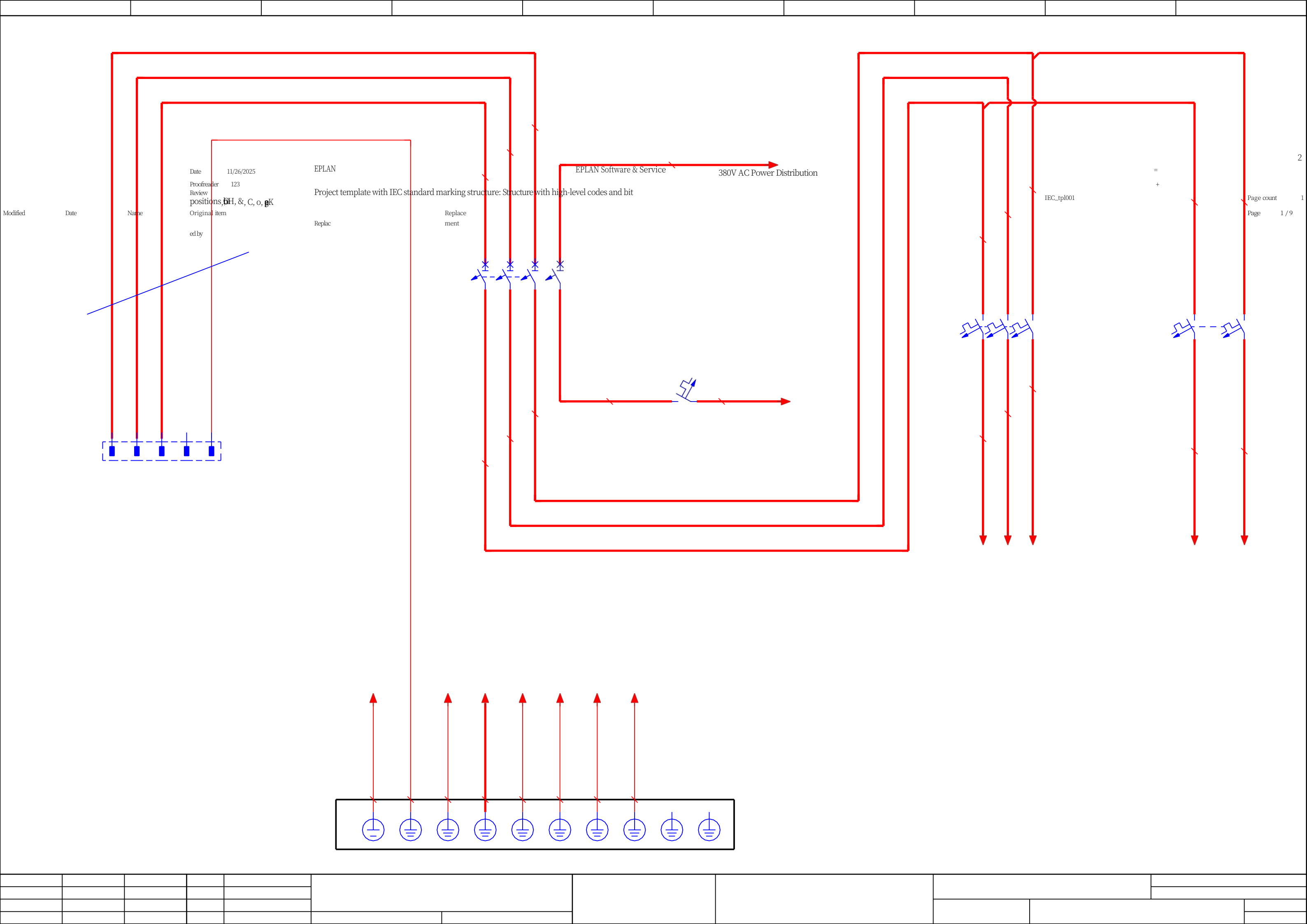
Exclusive Distribution Partner:
Exclusive distribution partner HTG Europe GmbH
Im Fisserhook 7, 46395 Bocholt, Germany

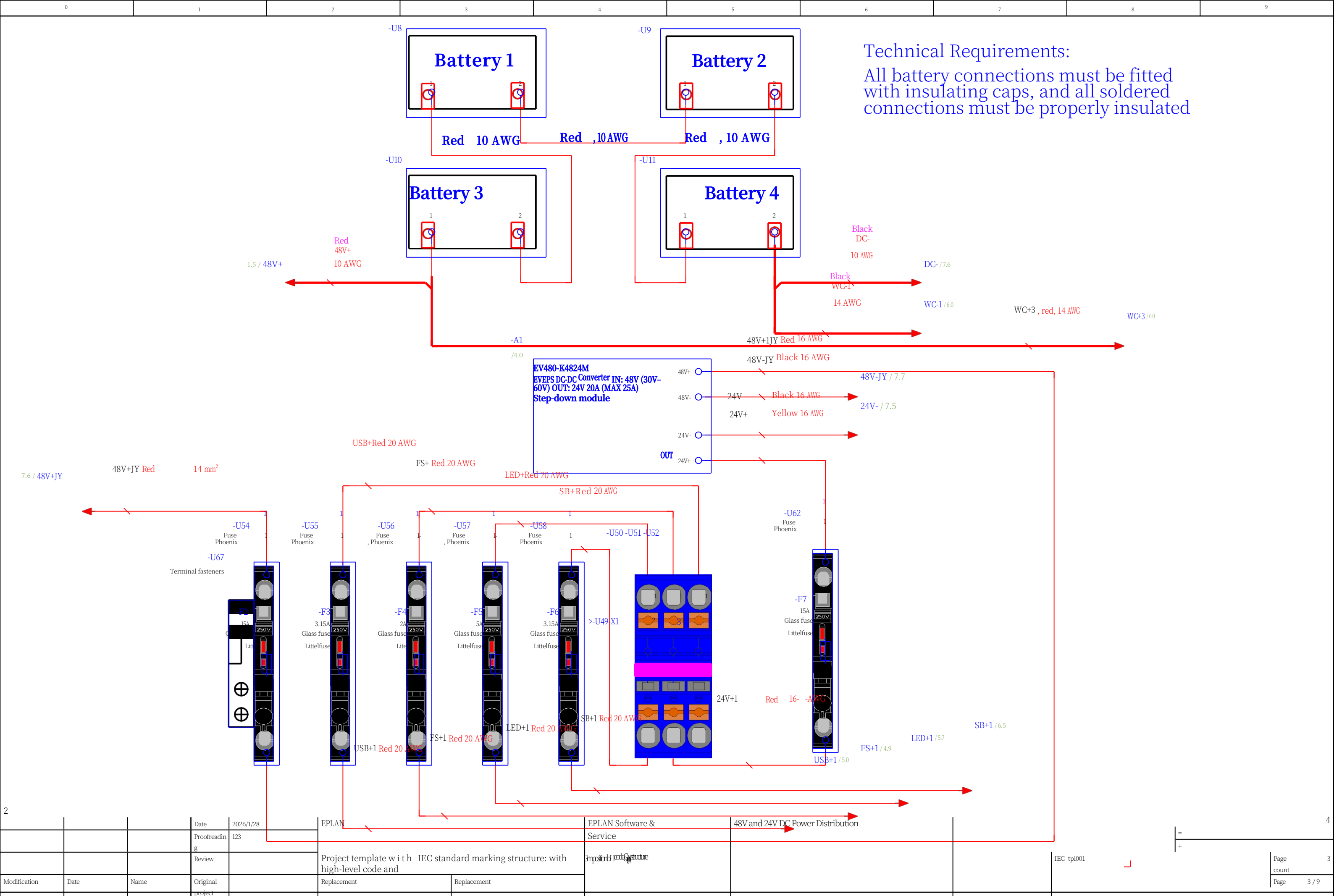
Bocholt, December 4, 2025


HTG EUROPE GMBH
IM FISSETHOOK 7
46395 BOCHOLT | GERMANY

Peter Bußmann – HTG Europe GmbH - Managing Director







Original project

e

Replac

Review

Replacement

123

EPLAN

Project templates w i t h IEC standard structure: with high-level codes and

EPLA
N
Softw
are &
Servi
ce
Human

Control circuit for the
frequency converter
inside the control
cabinet

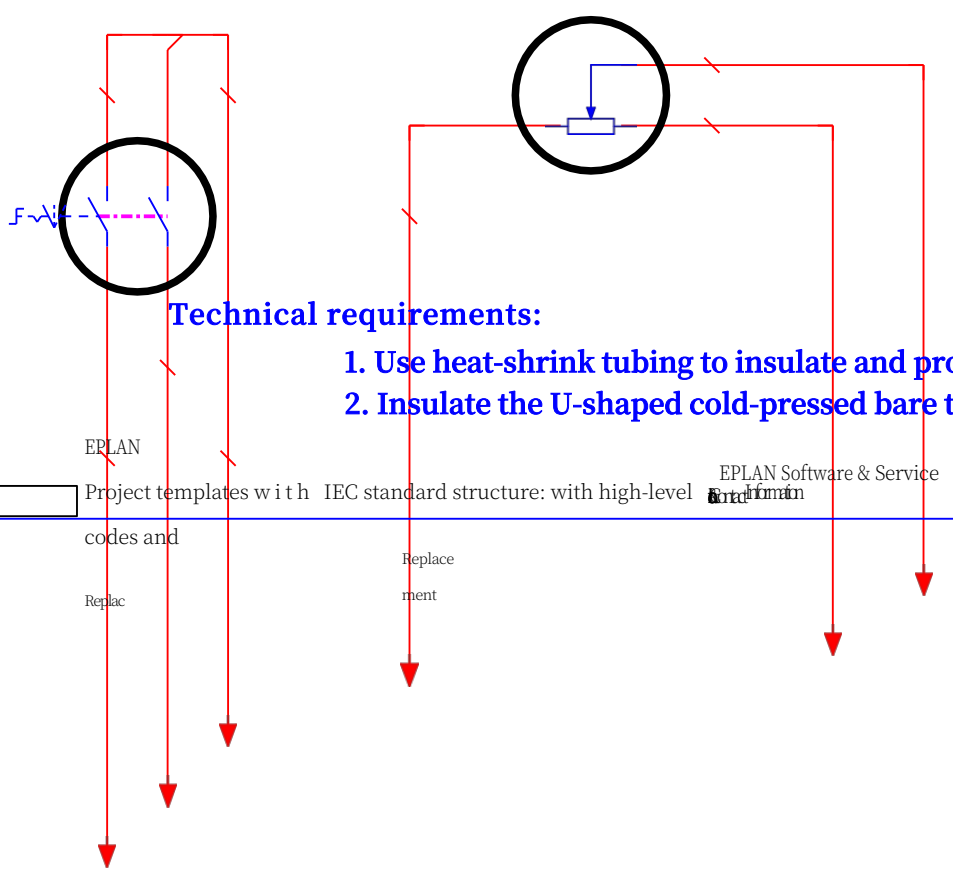
IEC_tpl001

=
+

Page count 4

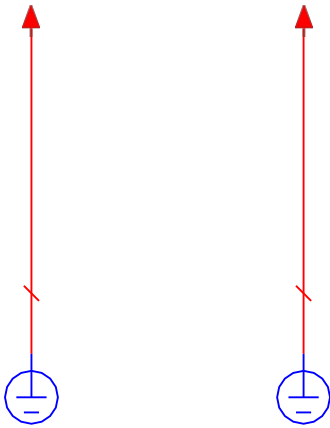
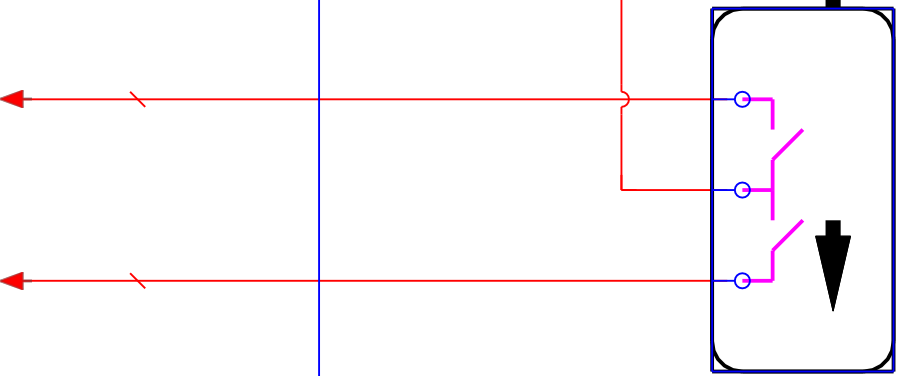
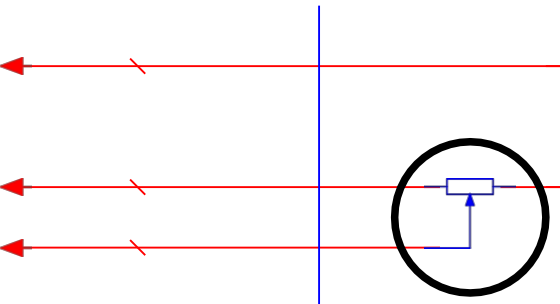
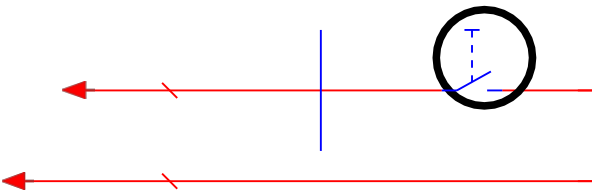
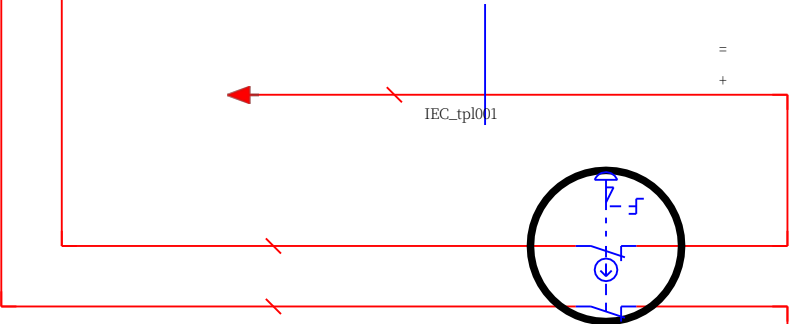
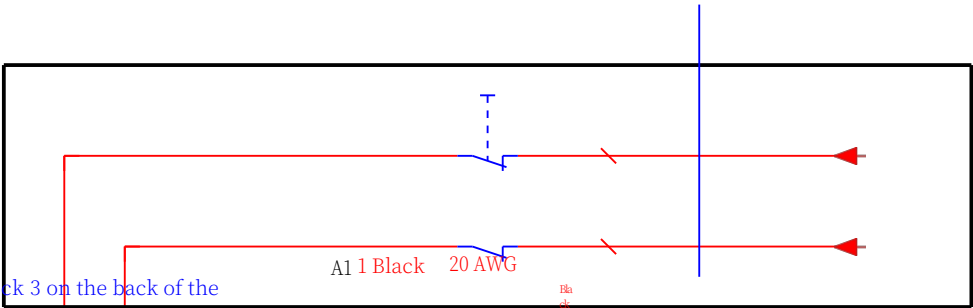
Page 4 / 9





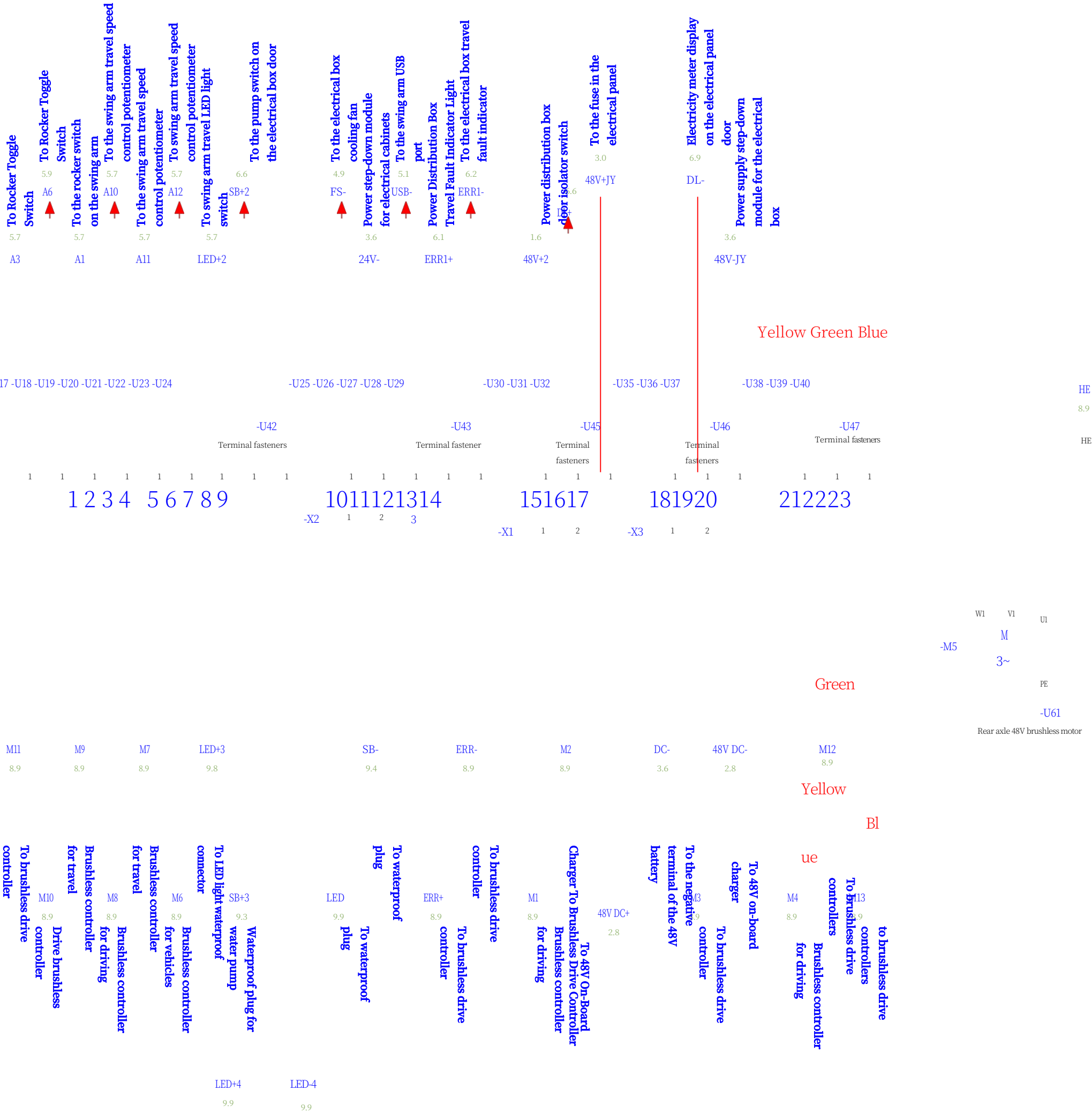
- Technical requirements:**
- 1. Use heat-shrink tubing to insulate and protect the toggle switch and USB terminals
 - 2. Insulate the U-shaped cold-pressed bare terminal heads with heat-shrink tubing

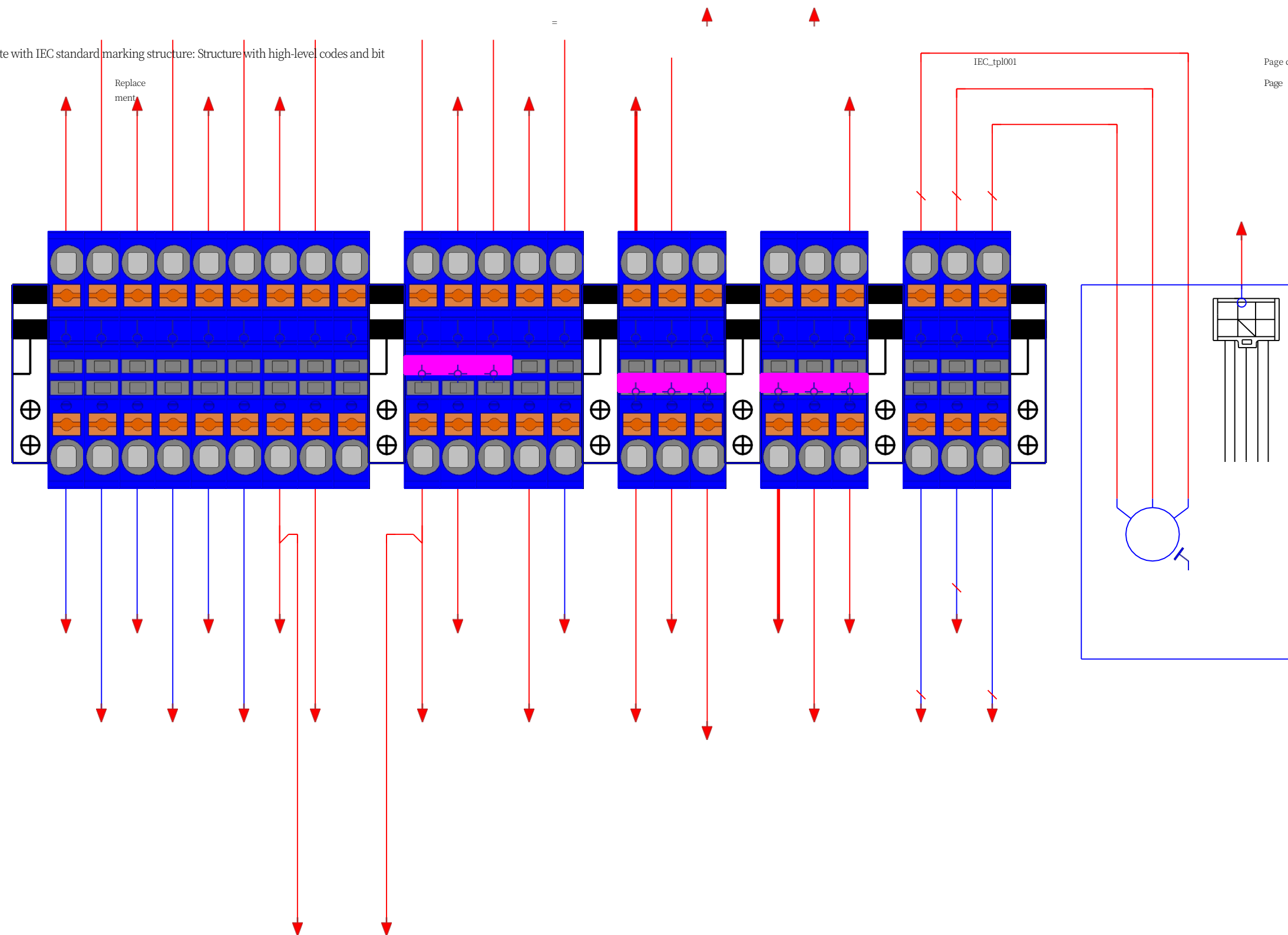
To terminal block 3 on the back of the electrical box 7.3 / A1

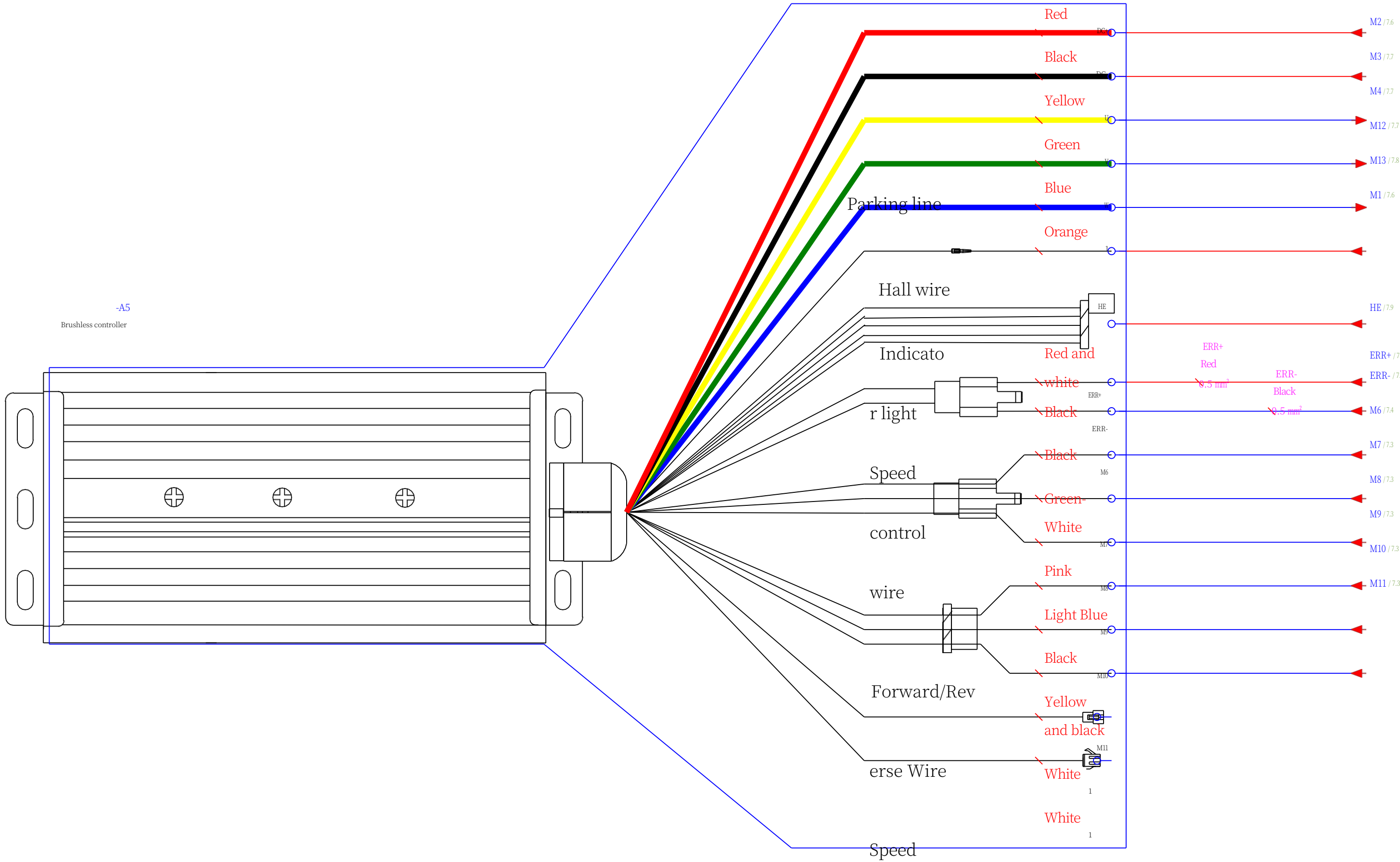


Joystick control circuit

Note:
Terminal blocks 10–12 use jumper plug FBS3-6; terminal blocks 15–17 use jumper plug FBS3-6; terminal blocks 18–20 use jumper plug FBS3-6







As of March 30, 2026

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



Notes

This image shows a full page of white paper with horizontal grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Original Operating Instructions
HIGH TECH Grinder HTG-680SP Ultra



This operating manual is the property of:	HTG Europe GmbH Im Fisserhook 7 D-46395 Bocholt
	Revision 1 March 30, 2026
© 2026 The copyright to this document and all attachments remains the property of HTG Europe GmbH at all times. The customer is authorized to use and reproduce this document solely within the scope of its intended use. Any violations shall give rise to liability for damages.	