STANDARD

OPERATING INSTRUCTIONS

TBS510

Index 000

Translation of the original instructions
11000656 en / 20.05.2019

Congratulations!

You have decided to purchase a tried-and-tested TYROLIT Hydrostress unit and have thus acquired a highly sophisticated and reliable state-of-the-art device. Only genuine TYROLIT Hydrostress replacement parts can guarantee quality and interchangeability.
If maintenance work is neglected or carried out inexpertly, we will be unable to honour our warranty obligations. All repairs must be carried out by trained personnel only.
Our after-sales service is available to help ensure that your TYROLIT Hydrostress units remain in perfect working order.
We hope that working with your TYROLIT unit will be a satisfying and fault-free experience.

TYROLIT Hydrostress

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BASIC SAFETY INSTRUCTIONS

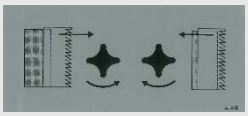
Warning notices and symbols in this operating manual

	**Danger**	Indicates that failure to comply could lead to severe injury or even death.
	**Caution**	Indicates that failure to comply could sometimes lead to injuries.
	Note	Indicates that failure to comply leads to damage to the machine or other property.

The defined sequence of the handling steps makes proper and safe handling of the machine easier.

- Handling instructions for the operator

The following warning and safety symbols were attached on the machine:

	Observe the operating manual
	Wear safety glasses and hearing protection
	Wear hand protection
	Cut hazard from rotating saw belt
	Attachment point for crane transport
	No attachment point for crane transport
	Noise power level (noise level) of the machine
	Running direction of saw belt
	Align saw band
	Tightening and releasing the saw belt

Preface

This operating manual should make it easier to get to know the machine and make use of its intended applications.

The operating manual contains important information on how to operate the machine safely, properly and economically. Your close attention helps avoid risk, repair costs and downtime, and increase the reliability and lifetime of the machine.

The operating manual is to be supplemented by directives for accident prevention and environmental protection, according to applicable national requirements.

The operating manual is to be kept permanently available at the machine location.

The operating manual must be read and used by each person assigned to work with the machine, e.g.:

- Operating, including tooling, troubleshooting during operating, correction of production rejects, service, disposal of operating and auxiliary materials
- Maintenance (service, inspection, repair) and/or
- Transport

Along with the operating manual and the valid legal regulations for accident prevention in the country of use and the place of use, also recognised regulations for safety and proper work are to be observed.

Required tool

In order for the masonry band saw to be operated, a tool - in the form of a saw belt - is required. These tools can be purchased from the manufacturer.

Changes and reservations

We attempt for this operating manual to be correct and up-to-date. To maintain our technological lead, it can be necessary to change the product without advance notice and to perform their operation. We accept no liability for malfunctions, breakdowns and damage caused by this.

Notes:

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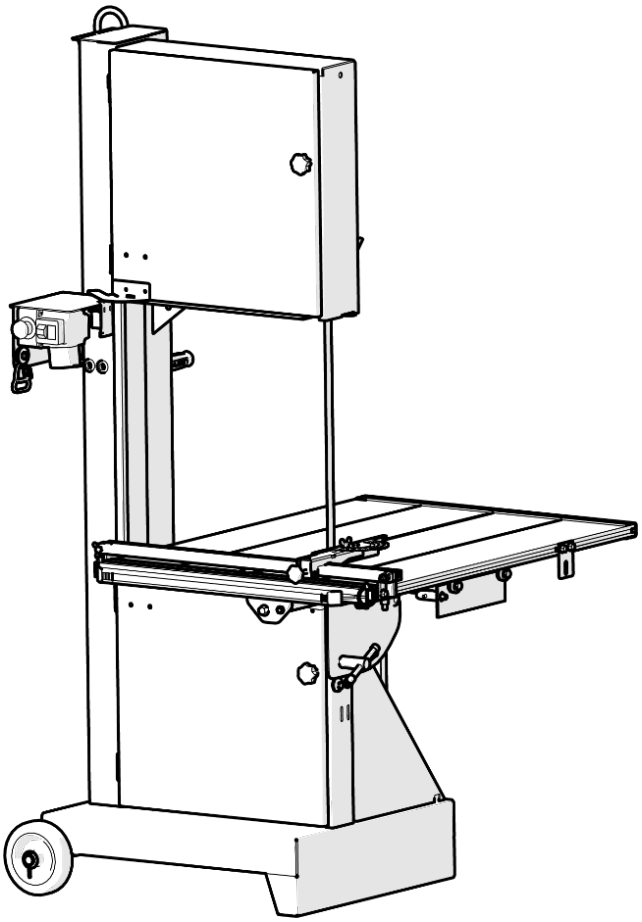
1. DESCRIPTION OF PERFORMANCE

Masonry band saws from TYROLIT are designed especially for processing porous concrete and have proven themselves on all types of construction sites worldwide. The different models in the TBS product line allow TYROLIT to offer their customers the greatest possible labour saving and highly precise cutting technology.

- Perfect for porous concrete and usable under some conditions for bricks
- Optimally dimensioned saw belt rolls guarantee a high service life of the saw belt
- Direct drive saw belt wheels reduce maintenance work on V-belts or other drive elements
- No risk of jamming – a generous opening in the lower saw roller box enables the debris to pass easily
- Constant, optimum tensioning using an automatic saw belt tensioner for optimum cutting accuracy and reduced risk of saw band breakage
- Short saw band changing times – with quick-coupling, the saw table can be opened with one hand movement
- Automatic saw belt cut-off – no excessive saw belt loading, since the saw belt only runs if it is actually sawing
- The wheel set allows the band saw to be moved easily by one person



1.1. Basics of intended use

	1.1.1	The warranty obligation of the manufacturer and supplier is voided for improper or non-intended use. Any change to the machine which is not carried out by the manufacturer is prohibited. Changes, removal or addition of parts only with the written approval of the manufacturer.
	1.1.2	The machine is constructed according to the state of the art and recognised technical safety rules. However, danger to life and limb of the user or third parties, and/or damage to the machine or other property may still arise from its use.
	1.1.3	Only use the machine in technically faultless condition and for intended use, aware of safety and danger complying with the operating manual. You should particularly handle malfunctions which can compromise safety immediately, or have them addressed by experts.
	1.1.4	The TYROLIT masonry band saw belongs to the masonry machines and is designed exclusively for cutting large-sized bricks and stones. Cutting includes bricks made of porous concrete and perforated bricks in dry cut within the adjustable operating range. Use with perforated bricks is only possible to a limited extent, as the composition is different depending on the manufacturer. For hard perforated bricks, the wear on the saw belt is too great and thus not recommended. The brick/stone must lie flat against the stop on the saw table and must not be additionally held manually. Intended use also includes compliance with the operating manual and observance of inspection and maintenance manual. The manufacturer/supplier assumes no liability for damages caused by failure to comply with the intended use.
	1.1.5	Foreseeable misuse / non-intended use: • Cutting wood, plastic or metal • Free hand-guided cutting • Any constructional changes, which change the safety or the type of design
	1.1.6	The safety of this masonry band saw is only guaranteed if TYROLIT- saw belts are used.

1.2. Organisational measures

	1.2.1	This operating manual must be easily accessible for each person at the location of use.
	1.2.2	All additions to the operating manual, all generally valid legal and otherwise binding regulations for accident prevention and environmental protection are to be followed and instructed! Such obligations may also apply, for example, to the handling of hazardous materials or the wearing of personal protective gear or traffic regulations.
	1.2.3	Personnel assigned to jobs must have read and understood the operating manual, particularly the Safety Instructions chapter, before starting work. In the middle of work it is too late. This particularly applies to personnel who only work occasionally, such as those involved in tooling and maintenance.
	1.2.4	At least occasionally, perform checks for safe and hazard awareness work by operators while following the operating manual!
	1.2.5	Use personal protection equipment if necessary or required by regulations!
	1.2.6	Observe all safety instructions and danger warnings and keep them in legible condition! Replace safety and danger instructions that are damaged or non-readable any more.

	1.2.7	For safety-related changes to the machine or the running behaviour, stop the machine immediately and mark it accordingly. Report the problem to the responsible post/person!
	1.2.8	No changes, removal or addition of parts without the written approval of the manufacturer! The instructions of the tool maker must be followed.
	1.2.9	Only use tested original replacement parts from the manufacturer!
	1.2.10	Observe required or prescribed deadlines given in the operating manual for inspection. A yearly inspection by an expert is required. Before the inspection, the machine must be cleaned thoroughly. Also, the power plug must be disconnected before any maintenance or repair work.
	1.2.11	Follow all setup, maintenance, and inspection activities and schedules prescribed by the operating manual, including all information about the replacement of parts / assemblies! These activities may only be carried out by experts.
	1.2.12	Inform operating personnel before beginning special and maintenance work! Name a supervisor!
	1.2.13	Workshop equipment suitable for the work is absolutely necessary for performing maintenance actions.

1.3. Personnel choice and personnel qualification; basic responsibilities

	1.3.1	Only qualified personnel 18 years of age or older may operate the masonry saw independently. All persons must be trained in the operation.
	1.3.2	Establish responsibilities of the personnel for operating, changeover, servicing, and repairing the machine!
	1.3.3	Make sure that only authorized personnel works at the machine.
	1.3.4	The operator must wear personal safety equipment according to the safety regulations, such as safety shoes, safety gloves and safety glasses.
	1.3.5	Remaining by the running machine unnecessarily is prohibited! Direct unauthorised personnel, who are not working on the machine, away from the work area. Block off the working area, if necessary.
	1.3.6	Work on the electrical equipment of the machine may only be carried out by qualified electricians or trained personnel under the management and supervision of a qualified electrician, and in accordance with the rules of electronics.
	1.3.7	Any personnel training, learning, being instructed, or currently involved in general education may only work with the machine under the continual supervision of an experienced person!

1.4. Safety instructions and residual risks for the operation phases of the machine

1.4.1. Transport, assembly and installation

	1.4.1.1	Transport, assembly and installation on/with the masonry band saw may only be carried out in transport position.
	1.4.1.2	Lift the machine only according to the instructions in the operating manual and with proper lifting gear! Observe the attachment points (crane eyes) for load lifting system.
	1.4.1.3	Transport in compliance with the maximum operating weight, this should be exclusively done by crane. When moving the machine only for a short distance the machine can also be pushed using the wheel set.
	1.4.1.4	Even when moving the machine only for a short distance, disconnect the machine from the power source! To recommission the machine, it must be connected properly to the power supply.

1.4.2. Moving the masonry band saw

	1.4.2.1	The masonry band saw may only be moved with the saw belt at a standstill and the drive motor turned off. Disconnect the machine from the power source!
	1.4.2.2	Before leaving the operating position, the electric motor must be shut down and the saw belt must no longer rotate. There is a danger of injury on the saw belt.

1.4.3. Commissioning

	1.4.3.1	The commissioning of the machine may only be carried out in transport position.
	1.4.3.2	Make sure that the foundation meets the load carrying capacity. All obstacles must be cleared away from the working area and make sure there is sufficient lighting.
	1.4.3.3	When inserting the saw belt, observe the running direction. There is a danger of injury on the saw belt.
	1.4.3.4	Visual inspection for damages and defects. Special check of the safety equipment and the saw belt.
	1.4.3.5	The safety of the masonry band saw is only guaranteed if tested TYROLIT saw belts are used.
	1.4.3.6	It is forbidden to connect the machine to the power mains without GCFI protection in the mains supply line or the junction box.
	1.4.3.7	The condition of the saw belts must be checked daily before starting the cutting operation. Cracked saw belts must be replaced immediately.

1.4.4. Operation

	1.4.4.1	Refrain from working in any manner that is questionable in regard to safety!
	1.4.4.2	Take measures to ensure that the masonry band saw is only operated in a safe, functional condition!
	1.4.4.3	At least once per shift check the machine for externally recognisable damage and deficiencies! Any changes which occur (including operating behaviour) must be reported immediately to the responsible post/person! If necessary, immediately stop the machine and secure it against restart!
	1.4.4.4	Immediately stop and secure the machine in case of malfunctions! Immediately correct malfunctions! Electrical work may only be carried out by qualified electricians.
	1.4.4.5	Any contact with the rotating saw belt is prohibited.
	1.4.4.6	If the saw belt tears, first wait until the saw belt stops before opening the side doors.
	1.4.4.7	Cutting curved or uneven workpieces is only allowed if the workpiece lies flatly between the saw table and stop, has a secure guide and must not additionally be held with the hands.
	1.4.4.8	The masonry band saws may only be operated by one person.
	1.4.4.9	Do not pull the power plug from the power source when power is on.
	1.4.4.10	Reaching into the saw belt during cutting is prohibited. These works may only be carried out with the saw belt at a standstill and the drive motor turned off.
	1.4.4.11	After finishing work the saw belt must be released to take the tension off the bearings of the saw belt wheels. Before starting work the saw belt must be tightened again.

1.4.5. Blockage of the masonry band saw

	1.4.5.1	When the saw belt is blocked the machine must be switched off immediately.
	1.4.5.2	Check the saw belt, saw belt wheels and the rubber coating on the saw belt wheels for damage.

1.4.6. Special work while using the machine

	1.4.6.1	Follow all setup, maintenance, and inspection activities and schedules prescribed by the operating manual, including all information about the replacement of parts / assemblies! These activities may only be carried out by technical personnel.
	1.4.6.2	Inform operating personnel before beginning special and maintenance work! Name a supervisor!
	1.4.6.3	If the machine is completely turned off during maintenance and repair work, it must be secured against unexpected application of power.
	1.4.6.4	Before cleaning the machine with water or other cleaning agents, cover/glue all openings in which no water/cleaning agent should penetrate due to safety and/or functional reasons. Electric motors, switches and plugs are especially at risk. After cleaning, remove the covers/tape completely.
	1.4.6.5	During service and repair work, always tighten again loose bolt joints.
	1.4.6.6	If dismantling is required for fitting, servicing and repair, the safety fittings must be remounted and checked immediately following the service and repair work!
	1.4.6.7	Please ensure the safe, environmentally friendly disposal of operating and auxiliary materials and replacement parts!

1.5. Safety instructions for special types of dangers

1.5.1. Danger for the operator by the machine

	1.5.1.1	Working on the masonry band saw and moving with rotating saw belt is prohibited.
	1.5.1.2	The electric motor of the masonry band saw must only be put in operation for intended use cutting.
	1.5.1.3	Never clean the running saw belt holding a brush or scraper in the hand. Switch off the machine and then clean it.

1.5.2. Electric power

	1.5.2.1	Use only original fuses with the specified current rating! In case of malfunctions, turn off the masonry band saws immediately! Electrical work may only be carried out by technical and qualified personnel.
	1.5.2.2	The machine's electrical equipment must be inspected/checked regularly. Faults such as loose connections or damaged cables must be corrected immediately. The machine must be labelled so that it cannot be started by others.
	1.5.2.3	Carry out maintenance or repair work only when the machine is disconnected from the power mains.
	1.5.2.4	A voltage drop of more than 10% leads to damage of the electrical switches.

1.5.3. Dust

	1.5.3.1	When working in close quarters, follow any applicable national guidelines!
	1.5.3.2	The masonry band saw can be equipped for use in interior areas with a dust extraction.

1.5.4. Noise

	1.5.4.1	Noise value (see 2.4)

1.6. Transport

	1.6.1	Name expert instructors for the lifting process
	1.6.2	Only use suitable transport vehicle with sufficient load capacity!
	1.6.3	Secure loads reliably according to the regulations. Use suitable attachment points!
	1.6.3	Lift the machine only according to the instructions in the operating manual and with proper lifting gear! Observe the attachment points (crane eyes) for load lifting system.
	1.6.3	Even when moving the machine only for a short distance, disconnect the machine from the power source! Before restarting the machine, connect it to the power mains correctly!
	1.6.4	When recommissioning, follow the operating manual!
	1.6.5	Transport of the masonry band saw may only be carried out in transport position.

1.7. Packaging and Storage

To ensure sufficient protection during shipping and transport, the machine and its components are carefully packaged. When receiving the machine, the machine should be checked for damage. The packaging of the device consists of materials which can be recycled. Put these by type into the relevant recycling containers, so that they can be recycled properly.

In the case of damage, the machine must not be put into operation. Even damaged cable and plugs represent a safety risk and must not be used. In this case, please contact the manufacturer.

If the machine is not immediately put into operation after unpacking, it must be protected from moisture and dirt. Tools that are not used must be protected from moisture. The applied segments around the saw belt must be protected from damage.

1.8. Environmental protection

Packaging material, cleaning agents, used or residual operating materials, as well as removed wear parts, such as drive belts or motor oils must be taken to recycling corresponding to the valid regulations for environmental protection at the place of use.

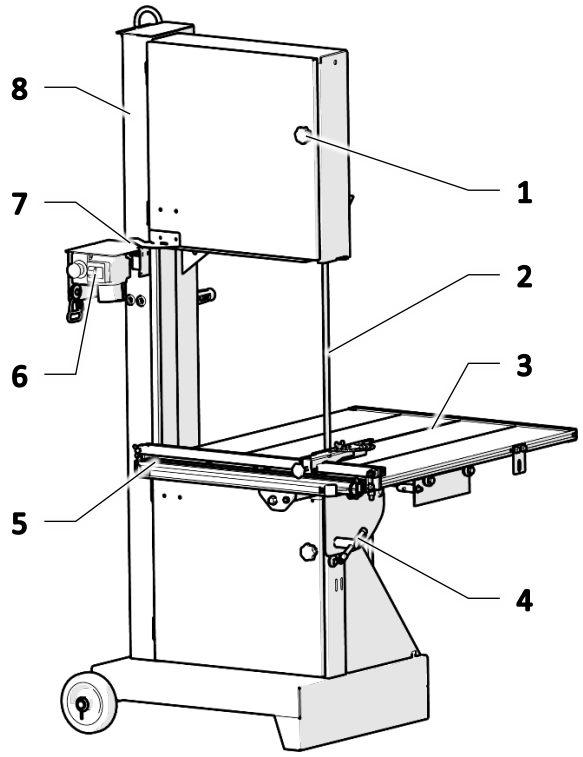
1.9. Disposal

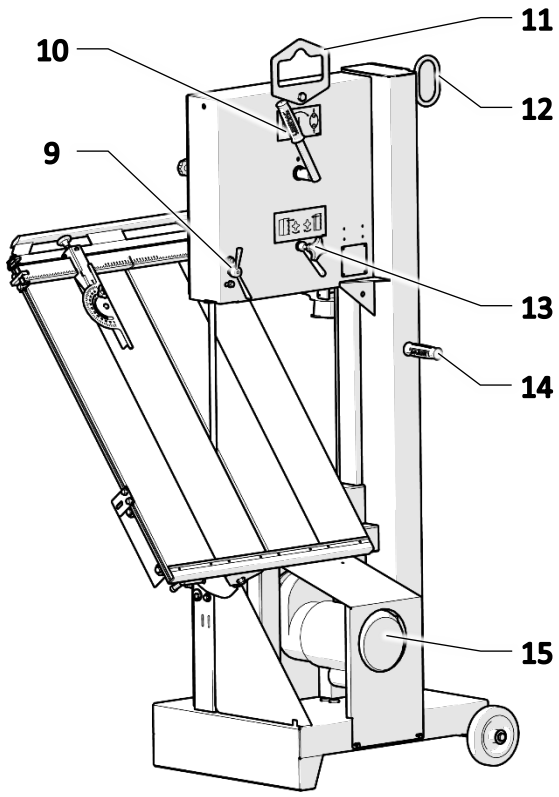
If the expiry date of the device has been reached, in particular if functional errors happen, make the used machine unusable.

Dispose of the device according to the valid regulations for environmental protection of your country. Electrical waste may not be disposed of in household waste. Take the used device to a central rubbish collection centre.

2. DESCRIPTION OF THE DEVICE

2.1. Name of machine parts





Pos. 1	Side door with rotary knob
Pos. 2	Saw belt
Pos. 3	Saw table
Pos. 4	Saw table clamp screw
Pos. 5	Handle on saw table
Pos. 6	Power supply ON/OFF
Pos. 7	Safety switch
Pos. 8	Frame
Pos. 9	Saw belt protection clamping lever
Pos. 10	Tensioning lever for saw belt
Pos. 11	Crane eye
Pos. 12	Handle eyes
Pos. 13	Adjustment of saw blade
Pos. 14	Handle to shift
Pos. 15	Drive motor

2.2. Safety guards

Pos. 1	Side door with rotary knob
Pos. 6	Power supply ON/OFF
Pos. 7	Safety switch
Pos. 9	Saw belt protection clamping lever

2.3. Technical data

	TBS510		
Motor output	1,5 kW	1,5 kW	1,1 kW
Power consumption	20 A	12,5 A	2,7 A
Connection values	110 V	230 V	400 V / 16 A
Protection class	IP 55		
Cutting height max.	515 mm		
Cut length	700 mm		
Dimensions (LxWxH)	1080 x 1050 x 1840 mm		
Maximum operating weight	173 kg		
Saw table load carrying capacity	50 kg		
Max. dimension of the workpiece to be cut	500 400 515		

Änderung der technischen Daten ohne vorherige Ankündigung.

2.4. Noise power level

Danger

In an environment with a high noise level, for example when working near loud machinery, wearing hearing protection in the workplace is prescribed for above 85dB(A).

The details define volume of noise level, related to the operator workspace and the noise power level of the masonry band saws.

	Noise power level LwA Measurement unit 2.5 dB	Workplace related emissions noise level LpA Measurement safety factor 4 dB
Porous concrete	101.8 dB(A)	83.8 dB(A)

The workplace related emissions value is based on an eight hour work shift and reduces correspondingly with shorter exposed time.

The values are determined by the noise emission measurement.
Testing is done without load with the largest permitted saw belt of the masonry band saws.

Measurement tolerances:
2.5 dB for the A-value noise power level
4 dB for the A-value emission noise pressure level

Emission noise pressure is done in compliance with the standard directive 2000/14/EC.

3. COMMISSIONING

3.1. Connections and operating materials

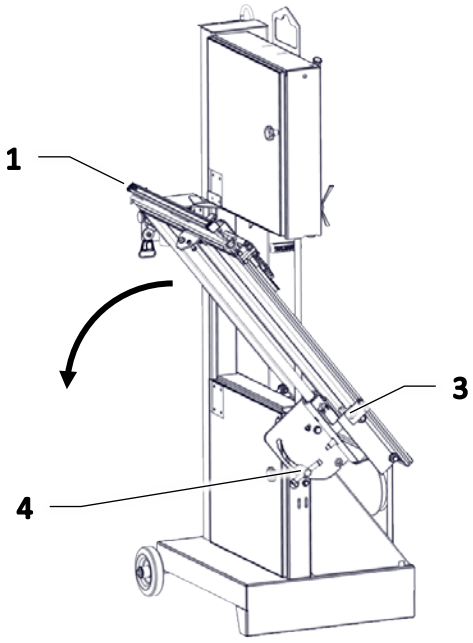
Connection of electricity

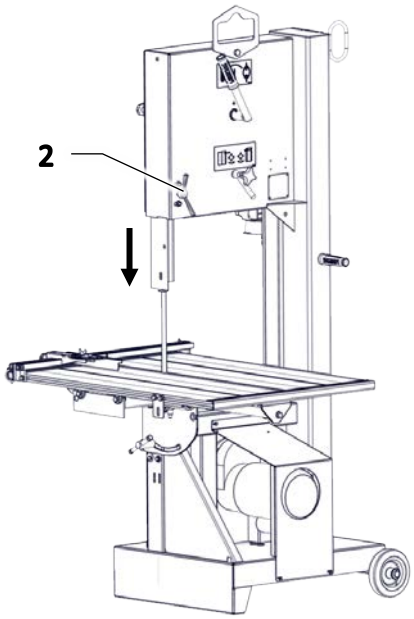
A reliable power source with an operating voltage and corresponding fuses as shown on the model plate must be available. Supply lines must not be damaged.
A voltage drop of more than 10% leads to damage of the electrical switches!

Lubrication points

Moving parts must be lubricated on the lubrication points at regular intervals. The manufacturer uses a qualified heat-resistant multi-purpose grease.

3.2. Setting up the masonry band saw



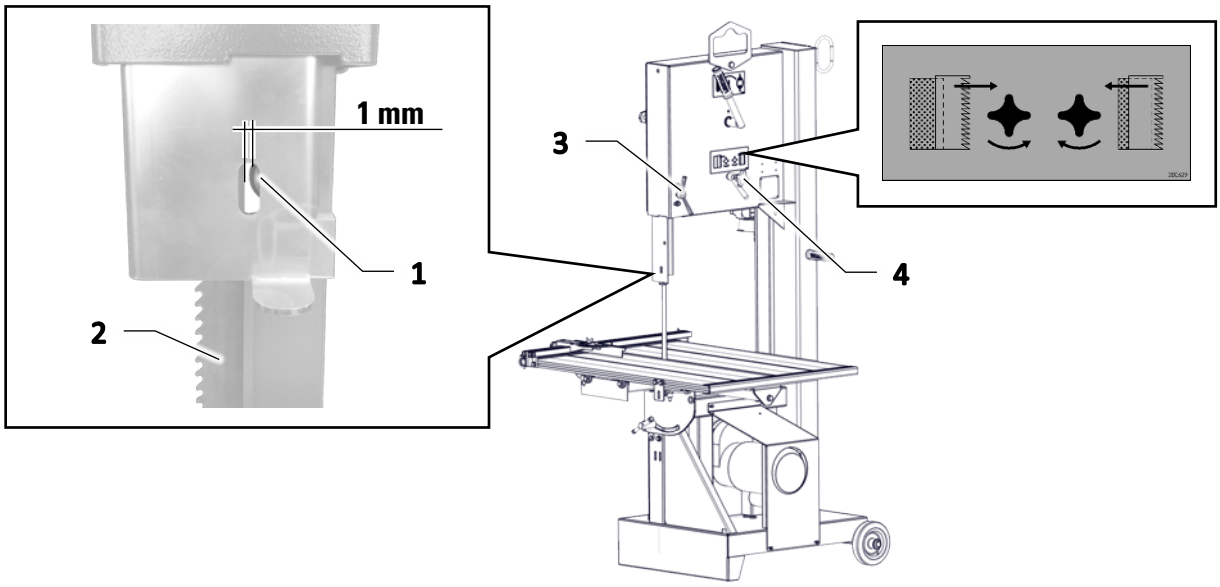


Note

The masonry band saws are packaged on a pallet for delivery. The packaging and pallet must be removed before the first commissioning.

- The masonry band saws must stand cleanly on the floor when set up and must not tip. Check secure positioning before commissioning
- Hold the saw table (Pos. 1) on the handle, at the same time unscrew the clamp screw (Pos. 4) and put the saw table in the horizontal position
- Tighten the clamp screw (Pos. 4) under the saw table
- Release the saw table lock using the spring lock (Pos. 3)
- Set the saw belt protection (Pos. 2) to the total height of the masonry stone being cut

3.3. Check distance between saw belt and guide rollers



- Switch off masonry band saws
- Open side doors
- Check the distance between the saw belt (Pos. 2) and guide rollers (Pos. 1)

Note	In standstill the distance between the saw belt (Pos. 2) and guide rollers (Pos. 1) must be approx. 1 mm.

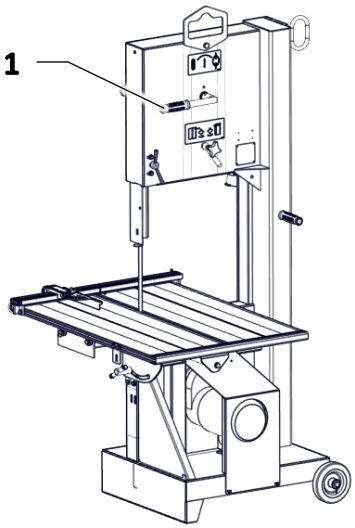
Changing the distance

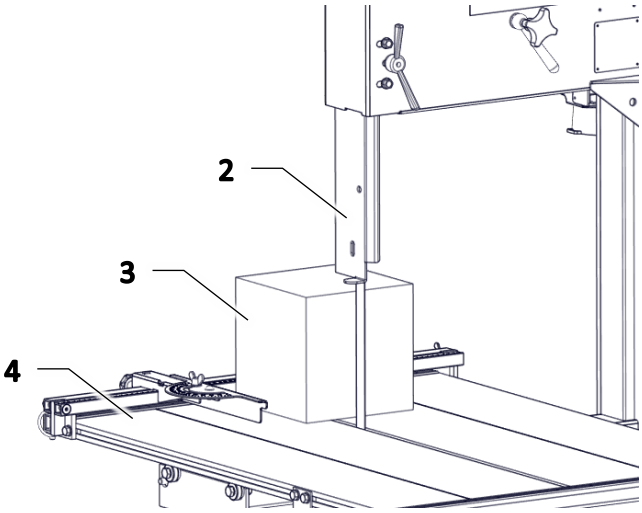
- Open clamping lever (pos. 3)
- Release the clamping lever (Pos. 3) and turn on star handle (pos. 4)
  Turn to the right - distance becomes smaller
  Turn to the left - distance becomes larger
- Tighten the position via the clamping lever (Pos. 3)

Danger	Before the current position of the saw belt is tested the side doors must be closed!

- Briefly switch on the masonry band saw (job mode!)
- Check the distance between the saw belt (Pos. 2) and guide rollers (Pos. 1)
- Repeat process until the distance is correct

3.4. Preparing to Start and Setting Operating Range





During the preparation of the saw the following steps must be completed:

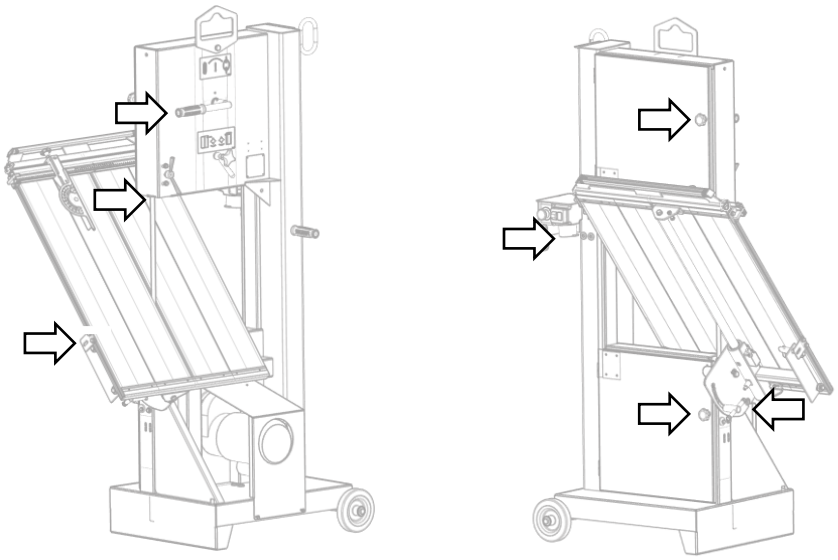
- Both side doors are closed and locked
- Power source is connected on the main switch
- Saw belt is tightened via the tensioning lever (Pos. 1)
- Place the brick or stone to the stop (Pos. 3) on the saw table (Pos. 4)
- Adjust the saw belt protection (Pos. 2) to the brick or stone dimensions

Note	The saw belt protection (Pos. 2) must be placed as tight as possible on the masonry stone to keep the uncovered section of the saw belt as small as possible.

4. TRANSPORT

4.1. Transport position

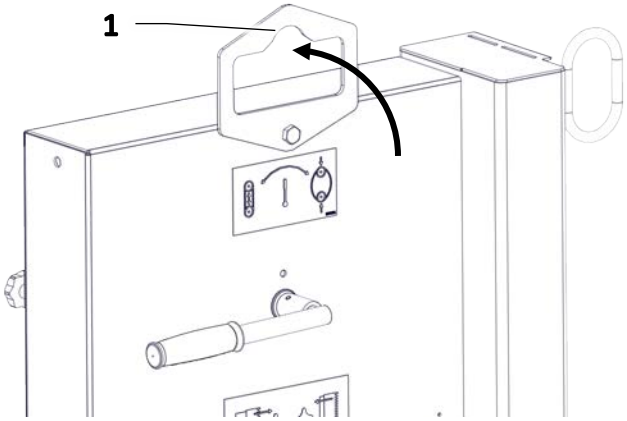
	Note	Transport with the forklift is prohibited!



Included in the transport setup of the masonry band saw:

- Power source is disconnected
- Side doors are closed
- Saw table is secured via the spring lock
- Saw belt protection is moved completely up
- Saw table is folded up and the clamping screw is tightened
- Saw belt is tightened

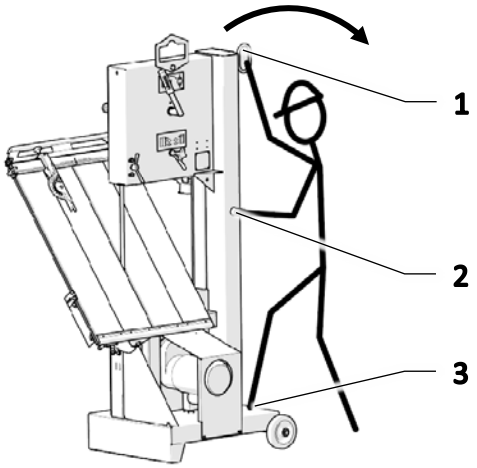
4.2. Move by crane



Danger	Only use undamaged slinging equipment with sufficient carrying capacity. Personnel should never remain under hanging loads.

- Use hoisting gear of sufficient load capacity
- Name expert instructors before the lifting process
- Hang the masonry band saw on the swivelling crane eye (Pos. 1)
- Only use suitable transport vehicle with sufficient load capacity
- Always keep an eye on the masonry band saw when moving

4.3. Moving the masonry band saws



- Place one foot on the edge (Pos. 3) of the masonry band saws
- The left hand grasps the handle (Pos. 2)
- The right hand the eye (Pos. 1)
- Carefully tip the masonry band saws back and push using the wheels

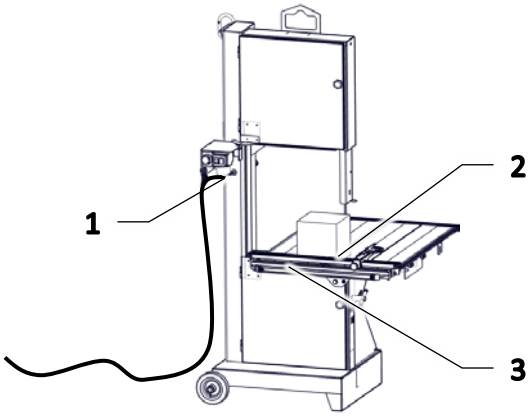
5. OPERATION

5.1. Safety

	Note	The masonry band saws may only be put into operation, if all starting preparations (see 3.4) are met. If this is not possible, the operation of the masonry band saws is prohibited.
	Note	The authorised operator must guide the feed movement when cutting using the saw table. Standing is limited to this area of the masonry band saws. The machine may only be operated by one person.

5.2. Cutting with the masonry band saw

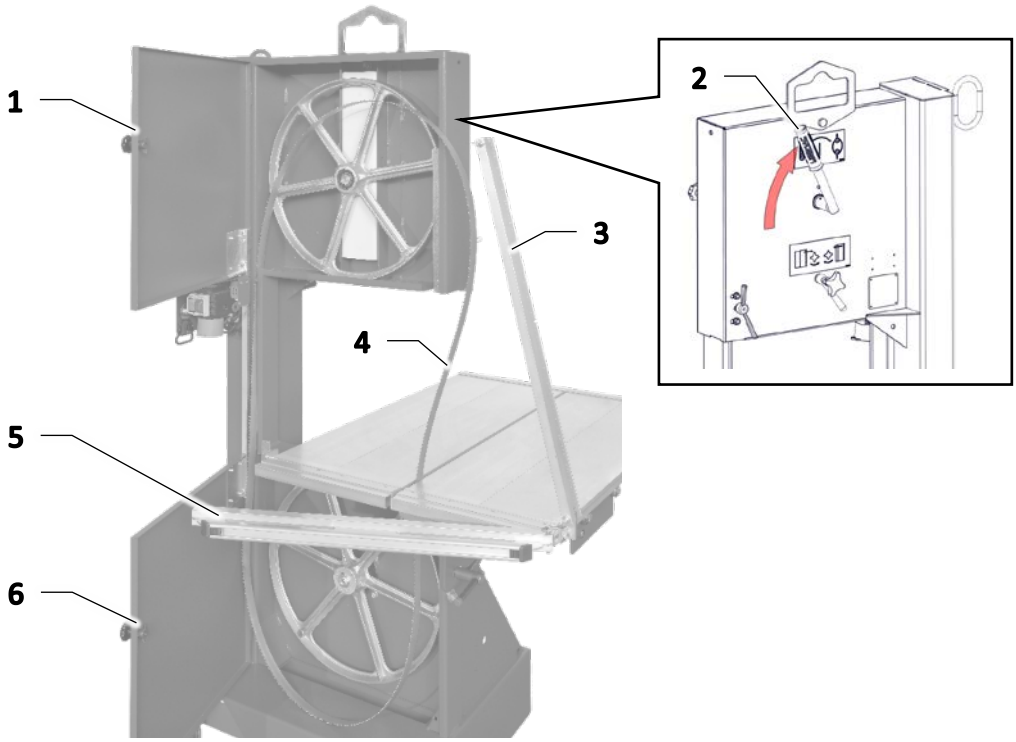
	Danger	Opening of the side doors or reaching into the rotating saw belt during cutting is prohibited. These works may only be carried out with the saw belt at a standstill and the drive motor turned off.
	Note	Observe the intended use of the masonry band saw!



- Place the masonry stone on the saw table (Pos. 2) to the stop
- Switch on the masonry band saw via the main switch (Pos. 1) and wait until the drive motor has reached its complete speed
- Guide the feed movement for cutting the masonry stone slowly using the handles (Pos. 3). The masonry band saw switches off after cutting through the masonry stone

	Danger	Cleaning the machine while running is prohibited! To clean, switch off the machine and wait until the saw belt no longer turns. Never clean with a brush or a scraper in the hand if the saw belt is still running.
	Caution	If the saw belt tears, first switch off the machine and wait until the saw belt stops before opening the side door.
	Note	After finishing work the saw belt must be released to take the tension off the bearings of the saw belt wheels. Before starting work the saw belt must be tightened again.

5.3. Replacing the saw belt



- Disconnect the masonry band saw from the power source
- Flip up the scale tube (Pos. 3)
- Open the table bracket on the handle (Pos. 5) and remove the cotter pin on the left side (Pos. 5) from the handle and fold the handle away towards the outside
- Release the saw belt via the tensioning lever (Pos. 2)

Caution	When the saw belt is released the side doors must be opened carefully. When removing the saw belt there is a risk of injury - wear protective gloves!

- Carefully open the side doors (Pos. 1 and 6)
- Remove the saw belt (Pos. 4) from the masonry band saw

Installing the new saw belt:

Note	The condition of the saw belt must be checked before each operation Cracked saw belts must be replaced immediately.

- The saw belt must lie cleanly in the running guides of the saw blade wheels
- Teeth point downward on the table (teeth must run from top to bottom!)
- Check distance between saw belt and guide rollers (see 3.3)

5.4. Workpiece blockage

Caution	When the saw belt is blocks the machine must be switched off immediately.

- Remove the saw belt and check the condition
- Check the saw belt wheels and the rubber coating on the saw belt wheels

5.5. Selection of the tools

Caution	Damaged saw belts must not be used!

Storage of tools

The used tools must be protected by moisture. The applied segments around the saw belt must be protected from damage.

The safety of this masonry band saw is only guaranteed if TYROLIT- saw belts are used.

Service life of the tools

The service life of the saw belt depends on the feed force during cutting.
If there is a feed force on the saw belt that is too strong, the saw cut runs off and the saw belt warps. The distance between the saw belt and the guide roll must be set correctly (see 3.3).

Disposal of the tools

Used or faulty tools must be sent to recycling corresponding to the applicable regulations at the location of use for protection of the environment.

6. CLEANING

Danger	Cleaning the machine while running is prohibited! To clean, switch off the machine and wait until the saw belt no longer turns. Never clean with a brush / scraper in the hand if the saw belt is still running.

To protect painted surfaces no aggressive cleaning agents may be used.

- Shut off the machine and disconnect the power connection from mains power
- Side doors can be opened for cleaning the machine

7. DISMANTLING

- Disconnect the power connection from the mains power
- Put the masonry band saw into transport position (see 4.1)

8. MAINTENANCE

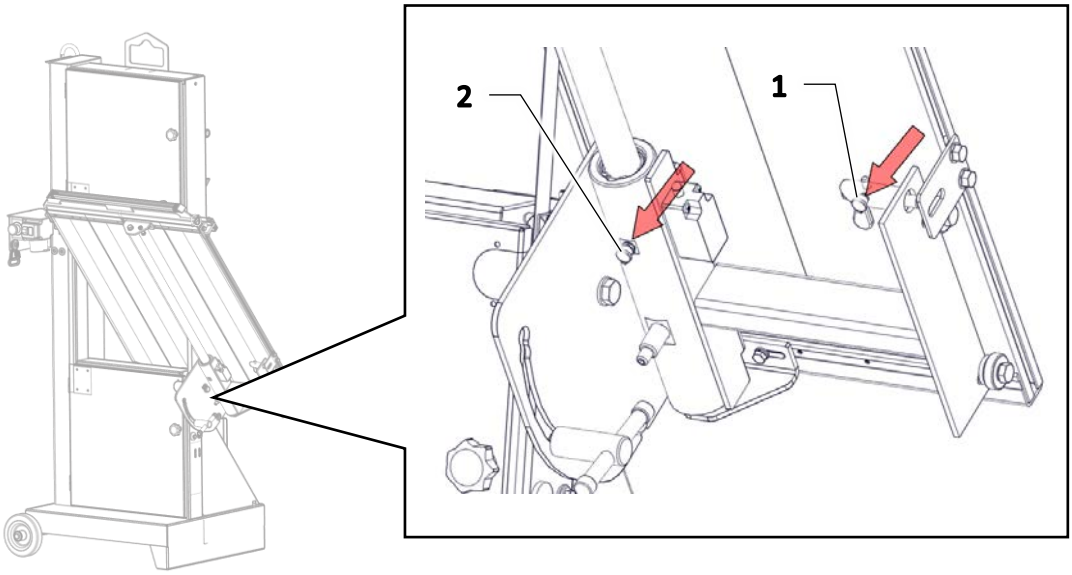
8.1. Service

 **Danger**	Maintenance and repair works must only be carried out by qualified personnel. These works may only be carried out with the saw belt at a standstill and the drive motor turned off.
 **Danger**	Masonry band saws must be secured against turning on by other people. Maintenance and repair works may only be carried out when the machine is turned off.

	daily	weekly	monthly	as required
Visual inspection for recognisable damage and deficiencies	●			
Control of the safety equipment	●			
Control of the saw belt	●			
Releasing tension on saw belt	● acc. to use			
Clean masonry band saws	●			
Lubricate the lubrication points			●	
Screw connections	Retighten all screw connections after 20 operating hours			

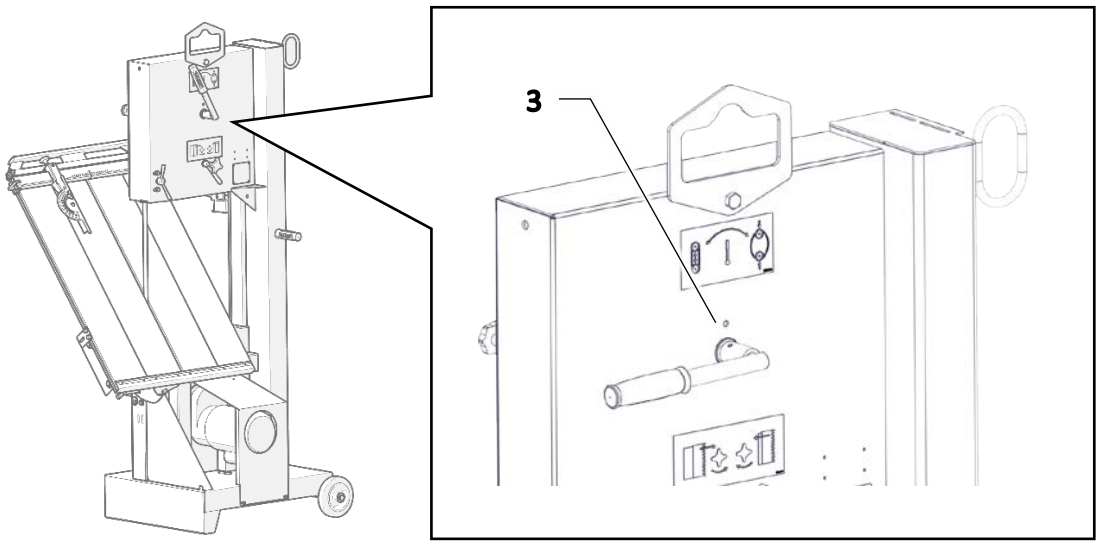
8.2. Lubrication points

	Danger	Maintenance and repair works must only be carried out by qualified personnel. These works may only be carried out with the saw belt at a standstill and the drive motor turned off.
	Note	Only use quality lubricant with the specified requirements. The lubricant used is called "Energrease LS2 BP".



Lubrication points on the masonry band saw:

- Spring lock (Pos. 1) for locking the table
- Guide sleeve (Pos. 2) under the saw table



- Lubricate the automatic power chuck above the opening (Pos. 3) on the tensioning lever with a spray oil

8.3. Troubleshooting table

 **Danger**	Pull the power plug before any maintenance or repair work. Measures must be taken, so that an accidental start-up by others is not possible. Maintenance and service works may only be carried out by qualified personnel.

Error	Cause	Remedy
Motor does not run	Mains cable faulty	New mains cable
	Switch faulty	May only be corrected by an electrician!
	Motor faulty	
Low cutting performance	Feed too fast	Cut with slower feed
	Saw belt dull	Replace saw belt
Saw blade tilted / blocked	Hooked in the stone	Disconnect the saw from power. Open doors, move saw belt backwards, pull the teeth out of the workpiece

 Note	If the feed force is too large, the following points must be checked: • Saw belt dull or defective? • Saw belt selection correct? • Full power or rotation speed from the electric motor?

8.4. Torque of screw connections

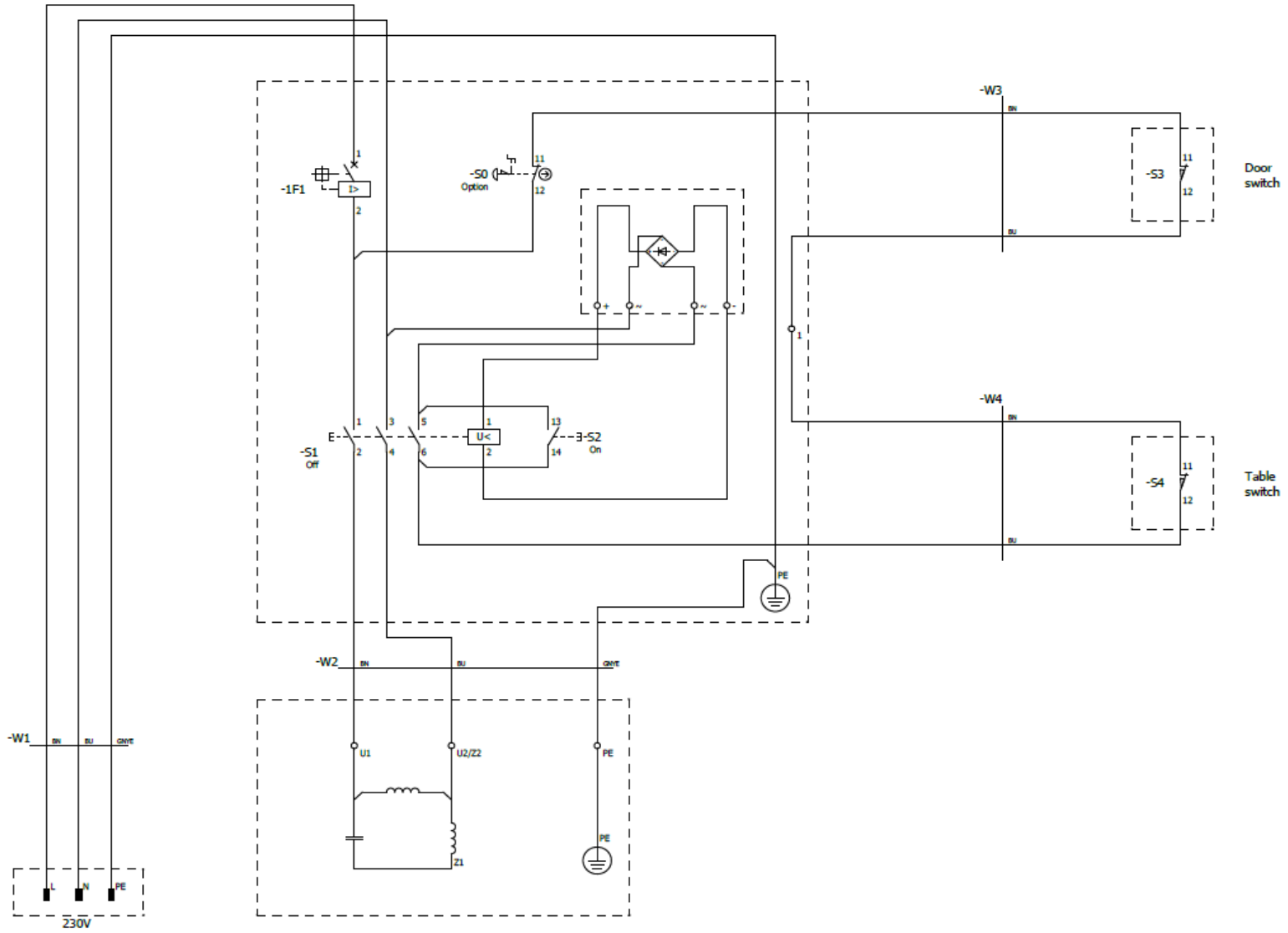
Strength class:	8.8	10.9	12.9
Dimensions	Max. tightening torque in Nm	Max. tightening torque in Nm	Max. tightening torque in Nm
M4	3.3	4.8	5.6
M5	6.5	9.5	11.2
M6	11.3	16.5	19.3
M8	27.3	40.1	46.9
M10	54	79	93
M12	93	137	160
M14	148	218	255
M16	230	338	395
M18	329	469	549
M20	464	661	773
M22	634	904	1057
M24	798	1136	1329
M27	1176	1674	1959
M30	1597	2274	2662

8.5. Maintenance plan

Note	This section should be used as a proof of already performed maintenance and as a service book. All warranty and service work must be entered as proof.

Machine/type: Serial number/year of manufacture:

Date	Performed maintenance or service works	Date/signature



			Datum	01.04.2019	TBS 510_230V		TYROLIT		=	
			Bearb.	Muster					+	
			Gepr							
Änderung	Datum	Name	Urspr		Ersatz von	Ersetzt durch			Blatt	1
									Blatt	1

Original EG-Konformitätserklärung

CE

Mauerstein-Bandsäge **TBS510**
Cellular concrete band saw
Scie à ruban pour béton cellulaire
Seghe a nastro per calcestruzzo poroso
sierras de cinta para hormigón celular

Wir bestätigen in alleiniger Verantwortung, dass diese Maschine den folgenden Richtlinien und Normen entspricht:

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

Nous déclarons, sous notre seule responsabilité, que ce produit répond aux directives et norms suivantes:

Dichiariamo sotto la nostra completa responsabilità che il presente prodotto è conforme alle seguenti direttive e norme:

Declaramos bajo propia responsabilidad que este producto cumple con las siguientes directivas y normas:

Richtlinien:
Directives:
Directives:
Direttive:
Directivas:

2006/42/EG 17.05.2006
2000/14/EG 08.05.2000

Normen:
Standards:
Normes:
Norme:
Normas:

EN ISO 12100:2010
EN 60204-1:2006

Hersteller:
Manufacturer:
Producteur:
Produttore:
Fabricante:

TYROLIT Hydrostress AG
Witzbergstrasse 18
8330 Pfäffikon ZH

Switzerland

Pfäffikon, 17.05.2019

Pascal Schmid
(Head of engineering and responsible for technical documentation)