
Operating manual WA 6

GB

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1 Machine identification

The type plate fitted to the machine frame serves for identifying the machine and other important machine data.

Meaning of the stated descriptions:

Altendorf Qinhuangdao Machinery Manufacturing Co.Ltd Supervised by Altendorf Germany Hengshan Road, Economic & Technical Development Zone, Qinhuangdao, P.R. China	
Formatkreissäge / Scie à format / Sliding table saw Typ / Type S/N Date	
 min. Ø max. Ø	mm mm
  	
Field supply fuse Largest motor Max. short circuit current Enclosure Type rating	

Type: Machine designation

S/N: Machine specific identification number

Date: Year of manufacture

These 4 fields are only used for the UL/CSA version!

2 Foreword

Prior to commissioning/start-up, thoroughly read this operating manual.

No liability will be accepted for any injury, damage or malfunctions/shut-down times resulting from non-observance of this operating manual!

Persons operating this sliding table saw must be sufficiently qualified and instructed!

This operating manual cannot be regarded as a binding type description as the manufacturer may have carried out technical modifications.

This operating manual can contain assembly groups/components that are not included in the standard scope of delivery but only available as options!

The operating instructions must always be available where the machine is being used. They must be read and heeded by any person performing the following activities at or on the machine:

- Operating including set-up, troubleshooting during operation, elimination of production waste, care, disposal of operating and auxiliary materials
- Maintenance, repair, inspection
- Transport

It is necessary to comply with national regulations on health and safety at work and environmental protection, in addition to the operating instructions.

The removal of safety devices, especially safety hoods for the saw blade cover and riving knives, will endanger the operator and may lead to accidents.

Safe work is only possible on a clean machine and in a clean environment!

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3 Identification

3.1 Certificates



Declaration of Conformity as defined by the machinery directive, Annex II 1A

-Translation of the Original-

Manufacturer:	Altendorf GmbH Wettinerallee 43/45 32429 Minden Germany
Person authorised to compile the technical documentation:	Michael Domurath, Head of the mechanical design department Altendorf GmbH
Product:	Sliding table saw, type WA 6
Machine number:	
Authority named for prototype testing according to annex IX:	DGUV Test Prüf-und Zertifizierungsstelle Holz Fachbereich Holz und Metall Vollmoellerstraße 11 70563 Stuttgart Germany Identification number 0392

We hereby declare that the above-mentioned product conforms with all applicable regulations of machinery directive 2006/42/EC. It fulfils the requirements of the following applicable directives:

- Low-voltage directive 2014/35/EU
- EMC directive 2014/30/EU

The following harmonised standards have been applied:

- DIN EN ISO19085-5: 2018-02 Woodworking machines - Safety - Part 5: Dimension saws (ISO 19085-5:2017)
- DIN EN ISO 12100: 2013-08 Safety of machinery - General principles for design - Risk assessment and risk reduction
- DIN EN 60204-1: 2010-05 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

Minden, 31.10.2018

Karl-Friedrich Schröder, Head of Research & Development

EC prototype testing certificate

Bescheinigung
Nr. HO 201042
vom 06.05.2020

 **DGVU Test**
Prüf- und Zertifizierungsstelle
Holz
Fachbereich Holz und Metall

Europäisch notifizierte Stelle
Kenn-Nummer: 0392

EG-Baumusterprüfbescheinigung

Name und Anschrift des
Bescheinigungsinhabers: Altendorf GmbH
(Auftraggeber) Wettinerallee 43/45
32429 Minden

Produktbezeichnung: **Formatkreissägemaschine**

Typ: WA 6

Prüfgrundlage: GS-HO-01:08.2013 Holzbearbeitungsmaschinen

Zugehöriger Prüfbericht: 120004FE20

Weitere Angaben: Bestimmungsgemäße Verwendung:
Bearbeiten von Holz und gleichartig zu bearbeitenden Werkstoffen.

Mitgeprüfte Ausstattung: getrennt vom Spaltkeil befestigte obere
Verdeckung

Nachfolgezertifikat zu Nr. HO 151093 vom 14.03.2019.

Das geprüfte Baumuster entspricht den einschlägigen Bestimmungen der Richtlinie
2006/42/EG (Maschinen).

Diese Bescheinigung ist gültig bis: **05.05.2021**

Weiteres über die Gültigkeit, eine Gültigkeitsverlängerung und andere Bedingungen regelt die
Prüf- und Zertifizierungsordnung.



P2802 Deutsche Gesetzliche Unfallversicherung (DGUV) e.V.
11.14 Spitzenverband der gewerblichen Berufsgenossenschaften
und der Unfallversicherungsträger der öffentlichen Hand
Vereinsregister-Nr. VR 751 B, Amtsgericht Charlottenburg

DGVU Test Prüf- und Zertifizierungsstelle Holz
Fachbereich Holz und Metall
Vollmoellerstraße 11 • 70563 Stuttgart • Deutschland
Telefon: +49 (0) 7 11 13 34-11 171 • Fax: +49 (0) 7 11 13 34-21 171

DGUV Test - Certificate

Zertifikat
 Nr. **HO 201043**
 vom 06.05.2020



DGUV Test - Zertifikat

Name und Anschrift des
 Zertifikatsinhabers:
 (Auftraggeber) Altendorf GmbH
 Wettinerallee 43/45
 32429 Minden

Produktbezeichnung: **Formatkreissägemaschine**

Typ: WA 6

Prüfgrundlage: GS-HO-05:08.2013 Staubemission von Holzbearbeitungsmaschinen

Zugehöriger Prüfbericht: 120004FE20

Weitere Angaben: Bestimmungsgemäße Verwendung:
 Bearbeiten von Holz und gleichartig zu bearbeitenden Werkstoffen.
 Hinweis: Holzstaubgeprüft im Sinne von BGI 739-1. Dem DGUV
 Test-Zeichen muss der Vermerk „holzstaubgeprüft“ angefügt werden.
 Mitgeprüfte Ausstattung: getrennt vom Spaltkeil befestigte obere
 Verdeckung
 Nachfolgezertifikat zu Nr. HO 151094 vom 14.03.2019.

Das geprüfte Baumuster entspricht der oben angegebenen Prüfgrundlage.
 Der Zertifikatsinhaber ist berechtigt, das umseitig abgebildete DGUV Test-Zeichen an
 den mit dem geprüften Baumuster übereinstimmenden Produkten sofern zutreffend
 mit dem oben genannten Zeichenzusatz anzubringen.
 Dieses Zertifikat einschließlich der Berechtigung zur Anbringung des DGUV Test-Zeichens ist gültig
 bis: **05.05.2021**

Weiteres über die Gültigkeit, eine Gültigkeitsverlängerung und andere Bedingungen regelt die
 Prüf- und Zertifizierungsordnung.





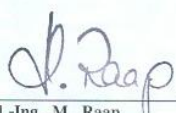
PZB08 Deutsche Gesetzliche Unfallversicherung (DGUV) e.V.
 04.17 Spitzenverband der gewerblichen Berufsgenossenschaften
 und der Unfallversicherungsträger der öffentlichen Hand
 Vereinsregister-Nr. VR 751 B, Amtsgericht Charlottenburg

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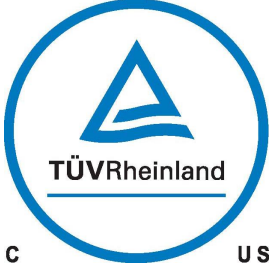
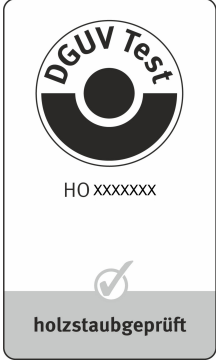
Certificate renewal

		 DGUV Test Prüf- und Zertifizierungsstelle Holz Fachbereich Holz und Metall	
DGUV Test, Prüf- und Zertifizierungsstelle Holz, FBHM Volkmolenstraße 11, 70563 Stuttgart		Europäisch notifizierte Stelle Kenn-Nummer 0392	
Altendorf GmbH Wettinerallee 43/45 42429 Minden			
Datum: 20.04.2021			
Bearbeitungsnummer 120004FE20-2: EG-Baumusterprüfbescheinigung DGUV Test-Zertifikat		Nr. HO 201042 vom 06.05.2020 Nr. HO 201043 vom 06.05.2020	
Sehr geehrte Damen und Herren,			
aufgrund der am 14.04.2021 erfolgten Feststellung Nr. 120004FE20-2 werden die Gültigkeiten der oben genannten Prüfbescheinigung und des Zertifikates der Baureihe WA 6 verlängert bis:			
19.04.2022			
Dieser Nachtrag ergänzt die Prüfbescheinigung und das Zertifikat und darf nur zusammen mit diesen verwendet werden.			
DGUV Test Prüf- und Zertifizierungsstelle Holz Fachbereich Holz und Metall			
Frank Hagendorf		 	
Deutsche Gesetzliche Unfallversicherung e.V. (DGUV) Spitzenverband der gewerblichen Berufsgenossenschaften und der Unfallversicherungsträger der öffentlichen Hand	DGUV Test Prüf- und Zertifizierungsstelle Holz Fachbereich Holz und Metall Volkmolenstraße 11 70563 Stuttgart	Commerzbank AG IBAN DE97 38040007 0333320001 BIC COBADE33XXX USHD-Nr. DE123382489	Telefon +49 6131 802-11171 Fax +49 6131 802-21171 E-Mail pz-holz.fbhm@bghm.de

C US certificate

	
<h1>Certificate</h1>	
Certificate no. CU 72072997 03	
License Holder: Wilhelm Altendorf GmbH & Co. KG Wettiner Allee 43-45 D-32429 Minden Germany	Manufacturing Plant: Altendorf Qinhuangdao Machinery Manufacturing Co. Ltd. No. 4 Hengshan Road 066004 Qinhuangdao China
Test report no.: USA-UH 30573165 003 Tested to: UL 987:1996 R9.00 C22.2 No. 73-1953 (R2004) C22.2 No. 105-1953 (R2004)	Client Reference: Rolf Tweer
Certified Product: Dimension Saw	License Fee - Units
Change: Following Manufacturing Plant no longer valid: Wilhelm Altendorf GmbH & Co. KG (K751297) Altendorf Strasse 8 D-32609 Hüllhorst-Schnathorst Germany	
Licensed Test mark: 	Signature  Dipl.-Ing. M. Raap QA Certification Officer
Date of Issue (day/mo/yr) 14/07/2009	
TUV Rheinland of North America, Inc., 12 Commerce Road, Newtown, CT 06470, Tel (203) 426-0888 Fax (203) 426-4009	

3.2 Marks of conformity

	<p>C US symbol</p>
	<p>"Wood dust certified" symbol</p>

4 Definitions

4.1 Description of machine

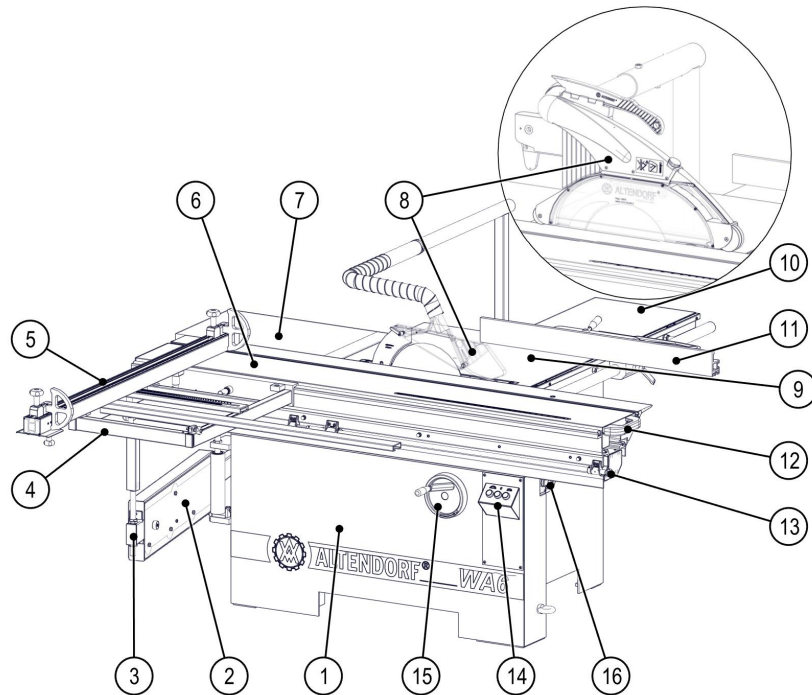


Fig. 4-1 WA 6

1	Machine stand	9	Machine table
2	Pivot arm	10	Main table width extension
3	Telescopic tube	11	Rip fence
4	Cross-slide	12	Handle
5	Crosscut-mitre fence	13	Sliding table interlock
6	Sliding table	14	Operating panel
7	Table top extension	15	Height adjustment
8	Protective hood	16	Emergency stop button

4.2 Terms

Scoring

Creation of a shallow cut in the surface of a workpiece, deep enough to pass through any coating on the workpiece, so as to prevent damage to the underside when the main saw blade makes its cut.

Scoring blade

A blade that is located in front of the sawing blade, used to score the workpiece and rotate along with the feed direction.

Grooves

Creation of cuts in the surface of the workpiece not deep enough to pass through using the saw blade or a milling tool.

Machine drive

Power driven device to effect a machine movement

Hand feed

Holding and/or guiding the workpiece manually.

Removable feeding device

Feeding mechanism fastened to the machine such that it can be tilted out of the work position without tools or similar equipment

Safety appliance

Additional device that is not an integral part of the machine but helps the operator to feed the workpiece safely, e.g. a push block or push stick.

Kick-back

Unexpected sudden movement of the workpiece or parts of it opposite to the direction of feed in the course of sawing.

Riving knife

Protection against workpiece kick-backs and unintentional contact with the rising gear rim.

4.3 Marking, pictographs

	<p>Danger warning</p>
	<p>Hand injury warning</p>
	<p>Voltage warning</p>
	<p>Note: Read the operating manual</p>
	<p>Note: Wear ear and eye protection</p>

5 Product description

5.1 Intended use

Usable materials:

- Laminated and unlaminated board materials (e.g. chipboard, coreboard, MDF board, ...)
- Solid wood
- Veneer with a suitable clamping device
- Gypsum plasterboard
- Cardboard
- Dimensionally stable plastics (thermoset plastics, thermoplastics). Sawing these materials does not normally involve any risks with regard to dust, chips, and thermal degradation products.
- Aluminium and aluminium alloys

Inadmissible materials:

- Sheet steel
- Sheet brass
- Sheet copper
- Round wood without the use of a suitable clamping device

Tools:

- The chosen saw blade must be suitable both for the specific work cycle (e.g. longitudinal cutting or cross-cutting) and for the specific material!
- Only circular blades which are solid chrome vanadium (CV) or tungsten carbide tipped (TCT) and have a maximum width of 15 mm are permitted for the main saw and milling/grooving cutter. The middle table strip and the cushioning disc must be removed when using a milling/grooving cutter.
- Saw blades with a maximum diameter of 120 mm are allowed for the scoring saw.
- **Saw blades made of high-alloy high-speed steel (HSS) may not be used!**
- **Wobble units may not be used!**

Usable saw blades:

250 - max. 315 mm diameter **CE version**

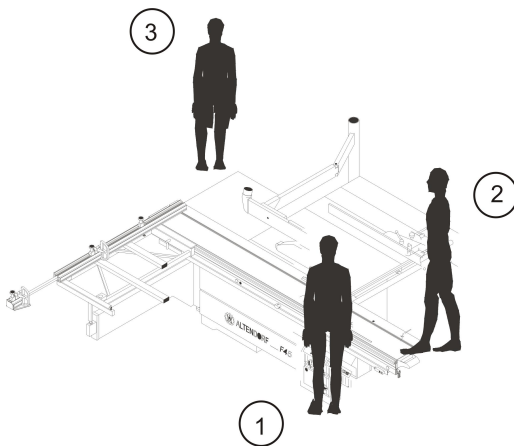
250 - max. 350 mm diameter **Non CE version**

Site of installation/use:

- The machine is not suitable for use outdoors or in rooms that are subject to moisture or the risk of explosions.
- The intended use of the machine involves connection to a suitably dimensioned extraction system.
- Intended use also involves compliance with Altendorf® specified operating, maintenance and repair conditions and adherence to the safety information contained in the operating instructions.
- The sliding table saw may only be used, set up and maintained by persons who are familiar with the machine and aware of the dangers.
- The pertinent accident prevention regulations as well as any other generally recognised technical safety and industrial medicine rules must be observed.
- Repair work must be carried out by our own customer service or by an organisation that we have authorised. Only use original Altendorf® spare parts. Altendorf® will assume no warranty for any damage that is caused by using non-original spare parts.

Machine operator positions:

The sliding table saw is intended to be operated from the following operator positions:



1. On the left of the sliding table at the front of the machine, seen in the feed direction (main operator position).
2. At the front short side of the machine to the right of the sliding table when working with the rip fence (do not move your body or parts of it into the blade rotation area).
3. Any person removing the workpieces must stand at the rear cross-end of the machine behind the main table length extension (under no circumstances in the sliding table traverse area)!



WARNING!

When removing workpieces at the rear of the machine, ensure that you keep sufficient distance from the extending telescopic tube.

Non-adherence may lead to knee injuries!

**Note!**

Any other use is deemed as unintended. ALTENDORF will not be liable for any kind of injury or damage that may result from such unintended use; the risk thereof is borne by the user alone.

Unauthorised modifications by users to the machine or its electrical parts and the use of non-original parts on the machine exclude any liability by the manufacturer for any resulting injury or damage.

Foreseeable misuse:

- Working with the safety hood swung up
- Working with the safety hood swung away (optional module)
- Failure to use the push stick or push block for cuts < 120 mm
- Moving the sliding table without using the handle
- Trimming without the trimming shoe
- Saws without a riving knife
- Incorrect setting of the straight edge on the rip fence: Ensure that the straight edge is pulled back such that the workpiece is not clamped/ jammed.
- Use of coolant lubricants containing water
- Insufficient removal of wood and plastic residue prior to machining aluminium
- Machining of NE metals listed in the section "Impermissible materials"

**WARNING!**

Always, under all circumstances avoid the above-mentioned types of work. All types of foreseeable misuse can lead to severe injuries!

Residual risk:

Even when the machine is operated in accordance with its intended use and all pertinent safety regulations, the following residual risks may be encountered because of design changes caused by the intended use in question:

- Contact with the main saw blade and the scoring blade in the cutting area when the protection hood is not correctly adjusted.
- Contact with the main saw blade and the scoring blade from beneath the table level when the sliding table is pushed fully forward or pulled fully back.
- Kick-back of workpiece or workpiece parts.
- Individual teeth spinning off tungsten carbide tipped blades.

- Breakage and ejection of the saw blade.
- Crushing at the manually moved sliding table.
- Contact with live parts when the electrical installation area is open.
- Damage to hearing as a result of working for long periods of time without hearing protection
- Emission of health-endangering dust from operation without extraction.
- Wear suitable gloves due to the risk of cuts when handling saw blades, grooving tools and pushing the wood into the machine, as well as during maintenance work.
- Do not remove chips while the saw blades are turning due to the risk of injuries.
- Do not use the machine unless all protective devices/guards required for processing have been installed and are in perfect condition due to the risk of injuries.



WARNING!

Avoid the potential dangers posed by these remaining risks by paying increased attention when setting up, operating and servicing the machine!

Always adhere to the specified working positions when operating the machine.

5.2 Dimensions and weights

Sliding table length [mm]	Net weight, machine box [kg]	Gross weight, machine box [kg]	Net weight, sliding table [kg]	Gross weight, sliding table [kg]	Dimensions, machine box [mm]	Dimensions, sliding table box [mm]
1600	459	536	102	133	1440x1160x1050	2100x450x310
2000	459	536	117	148	1440x1160x1050	2100x450x310
2600	461	538	136	176	1440x1160x1050	2700x450x310

5.3 Auxiliary power/power requirements

Only connect the machine to a three-phase AC mains with phases L1, L2, L3 (exception 2.6 kW/1Ph). If a frequency converter or a phase converter is used in the supply line to the machine, this device or the brake module integrated in the machine may be destroyed. Operating the machine together with phase converters, frequency converters or transformer-capacitor combinations will destroy the brake module or the frequency converter and power supply unit!

The permissible tolerance for the specified mains voltage is + 10% and - 10%. Greater deviations will impair functionality.

Screw-in fuse links of the type NEOZED D02 (utilisation category gL) should preferably be used as back-up fuses.

The supply line must be dimensioned such that it cannot be overloaded and a max. voltage drop < 3% occurs at nominal current.

The loop impedance and suitability of the overcurrent protection device must be inspected/tested at the machine installation site.

Auxiliary power/power requirements

Motor [kW]	Voltage [V]	Frequency [Hz]	Nominal current [A] Without/with scoring blade
4	200	50	15.9 / 17.7
4	200	60	15.1 / 16.7
4	220	50	13.4 / 15.0
4	220	60	13.9 / 15.4
4	230	50	12.8 / 14.6
4	380	50	7.8 / 8.7
4	380 - 440	60	7.0 / 7.9
4	400 - 420	50	7.4 / 8.3
4	208	60	14.6 / 16.1
4	220	60	13.7 / 15.3
4	440	60	7.2 / 8.0
2.6	220 / 1Ph	60	18.8 / 20.4

Tbl. 5-1 Auxiliary power/power requirements

5.4 Emissions

5.4.1 Noise - characteristic values

Sound power level [dB (A)]	Emission sound pressure level at the workplace [dB (A)]	Tools
Idling_____L _{WA} = 98.3 Cutting__L _{WA} = 103.2	Idling_____L _{PA} = 91.0 Cutting__L _{PA} = 94.4	Circular saw blade 250x3.2/ 60 WZ n = 4405 rpm

The noise emission values determined according to DIN EN ISO 3746 for the sound power level or DIN EN ISO 11202 and for the sound pressure level at the workplace on the basis of the working conditions stated in ISO 7960 Appendix A are as listed in the table.

A measurement uncertainty allowance of K = 4 dB (A) applies to the stated emission values.

The specified values are emission values and cannot be taken as reliable values for each workplace. Although there is a correlation between emission and immission levels, it is not possible to reliably deduct if additional precautionary measures are required or not. Factors, which influence the current actual immission level at the workplace include the individual conditions in the working space and other noise sources, i.e. the number of machines and other operating processes in the vicinity. The admissible workplace values are different in each country. However, this information should support the owner/user to assess hazards and risks.

The measured values apply to derived timber products. Deviating values are possible when aluminium profiles are processed.

5.4.2 Dust

The dust emission values – measured in accordance with the “Principles for Testing Dust Emission (Concentration Parameters) from Woodworking Machines” issued by the German trade association's technical committee for wood – are below 2 mg/m³.

When the machine is attached to a correctly functioning extraction system with an air speed of at least 20 m/s (measured after joining the two extraction connections) you can assume it is and will stay compliant with the technical reference concentration (TRK) limit for wood dust that is in force in Germany.

The machines are tested concerning wood dust in accordance with the BGI 739-1. The machines bear the DGUV mark with the additional wood dust mark "holzstaubgeprüft". Consequently, a company operating the machine in Germany is exempt from the obligation to perform measurements at the workplace in accordance with TRGS 553.

**Note!**

Metal dust does not usually occur when cutting aluminium.

5.4.3 Electromagnetic compatibility

EMC (Electromagnetic Compatibility) is the ability of an electrical device to function in its electromagnetic environment without disruptively influencing this environment, which also includes other devices, or being disturbed by it.

The machine complies with the requirements set out in the European electromagnetic compatibility directive 2014/30/EU (EMC directive).

5.5 Ambient conditions

The ambient temperatures for transport and storage range between - 25° C and + 55° C; 70° C is permissible for a short time.

The ambient temperatures for machine operation is between -10 and +40 °C.

The machine must not be stored or operated in an environment with explosive or corrosive gases.

The maximum air humidity during storage and operation must not exceed 90%, and condensation must be avoided in all cases.

5.6 Safety information

The operation of woodworking machines with a manual feed involves a high risk in the event of incorrect handling. Therefore always observe the safety information that is summarised in this chapter as well as government and other industrial safety regulations (e.g. accident prevention regulations)!

**Note!**

Ensure that the operators are suitably trained in the use, setting and operation of the machine!

5.6.1 Operator safety

Prohibited:

- Long hair without wearing a hair net
- Wide clothing, watches, rings and bracelets

Required:

- Tight-fitting work clothes
- Ear protection
- Safety shoes

Recommended:

- Eye protection

**Note!**

Non-adherence to the health and safety requirements may lead to accidents and operator injuries.

5.6.2 Machine safety

General:

- Ensure that the workplace is uncluttered, slip-proof and well lit.
- Replace damaged components in the saw blade area.
- Only qualified electricians are permitted to work on the electrical equipment of the machine.
- Wobble units or wobble cutting devices may not be used.
- HS saw blades and cracked or deformed saw blades may not be used.

Prior to use:

- Before all work, ensure that the protective and working devices are securely fitted and are not damaged.
- Before changing a tool, secure the machine against being switched on unintentionally, e.g. by actuating the emergency stop device.
- Before rectifying any faults and carrying out repairs, secure the machine against being switched on unintentionally, e.g. by padlocking the main switch.
- Remove any loose parts from the vicinity of the saw blade before switching on the machine.
- Only start cutting when the saw blade has reached its full rotational speed.
- Prior to cutting aluminium, thoroughly clean the machine and remove all remaining chips and dust to prevent ignition of remaining chips/dust.

During use:

- Never operate the machine without the protective devices intended for the specific work cycle and do not make any changes that could impair safety.
- Only cut when the protective hood is properly adjusted!
- When the machine is switched on, the extraction system must be activated at the same time. The minimum air speed at the lower extraction socket must be at least 20 m/s.
- Only use properly sharpened tools designed to conform with the requirements of the European standard EN 847-1:2018.
- When working at the machine, always stand to the side of the saw blade outside a possible kick-back area.
- Always guide the workpiece safely and use the appropriate stops/fences.
- Crosscuts and longitudinal cuts in round wood are not permitted with the standard feeding aids or fences/stops.

After use:

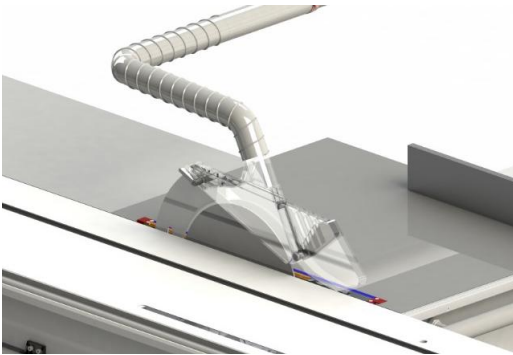
- Regular cleaning of the machine and, in particular, the main table, sliding table and guides (e.g. rip fence) is an important safety factor. Before starting this work, make sure that the machine cannot be switched on unintentionally.

5.6.3 Safety devices

The machine is equipped with all the necessary safety devices to protect against operating risks that could not be eliminated by its design. These safety devices include, in particular:

- Emergency stop button
- Limit switch, plate, chip duct
- Sliding table limit switch
- Protective hood

5.6.4 Top safety hood/riving knife



- Cutting without a protective device is not permitted
- Ensure that the front tip of the protective hood makes contact with the workpiece during cutting
- Select a suitable riving knife size for the saw blade size

5.6.5 Checking protective devices

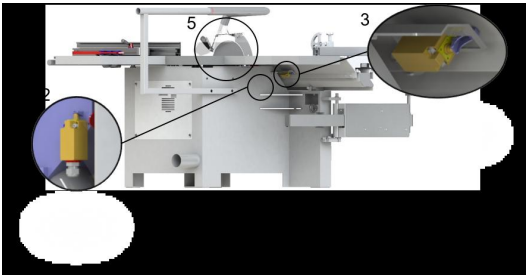
Test all protective devices with the main switch turned on and check for completeness and noticeable damage.

For the tests, install the largest possible saw blade and set the maximum permissible speed.



1. Emergency stop button

- Start the main and scoring saw
- Press the emergency stop button (1)
- Ensure that the main and scoring saw stop within 10 sec.



2. Limit switch, plate, chip duct

- Push the sliding table to its end position (centre of main saw)
- The limit switch (2) is tripped when the cover plate is folded away
- Actuate ON button of main and scoring saw
- Ensure that the main and scoring saw do not start

3. Sliding table limit switch

- Start the main and scoring saw
- Actuate the unlocking mechanism to push the sliding table over the centre of the main saw (see figure), this trips the limit switch (3)
- Ensure that the main and scoring saw stop within 10 sec.

4. ON and OFF switches

- Check all ON and OFF switches (4) for soiling
- Clean all ON and OFF switches (4) in the event of soiling

5. Protective hood

- Check protective hood (4) for damage
- Replace protective hood (4) if damaged



WARNING!

The safety-relevant protective devices/guards exist for the operator's protection. If safety-relevant components are damaged, immediately stop and secure the machine and initiate the required repair work. The operator must assess damage to non-safety-relevant components and initiate repair work accordingly.



Note!

Carry out and document this check 1x month!

We recommend inserting these tests in the owner/user's instructions.



Note!

If the run-down time of the main saw exceeds 10 sec, please contact the Altendorf customer service.

6 Installation

6.1 Transport

Ambient conditions

Do not store the machine in an environment with explosive or corrosive gases.

The ambient temperatures for transport and storage range between - 25° C and + 55° C; 70° C is permissible for a short time.

The maximum air humidity must not exceed 90%, and condensation must be avoided in all cases.

Packaging

The type of packaging depends on the type of transport. Unless otherwise agreed in the contract, the packaging corresponds to the HPE guidelines established by Bundesverband Holzmittel, Paletten, Exportverpackungen e.V. (the German Association for Wooden Materials, Pellets, Export Packaging) and the VDMA. Observe the symbols on the outside of the packaging!

Degree of dismantling

The degree of dismantling of the sliding table saw depends on the transport conditions and the options supplied with the machine. The sliding table is always shipped dismantled into several installation assemblies.

Sensitivity

Particular care must be taken when transporting the sliding table saw in order to avoid damage from force or poor loading and unloading. Knocks and condensation due to extreme temperature fluctuations must be avoided during transport.

Intermediate storage

If the sliding table saw or its assembly groups are not installed immediately after delivery, ensure that they are stored in a protected location. They must be properly covered to prevent any ingress of dust or moisture. Bare parts without surface treatment of the sliding table saw are protected with a preservation agent which will protect them for approx. 1 year. Represervation is necessary if storage is to last longer than this period.

6.2 Safety measures before use/installation

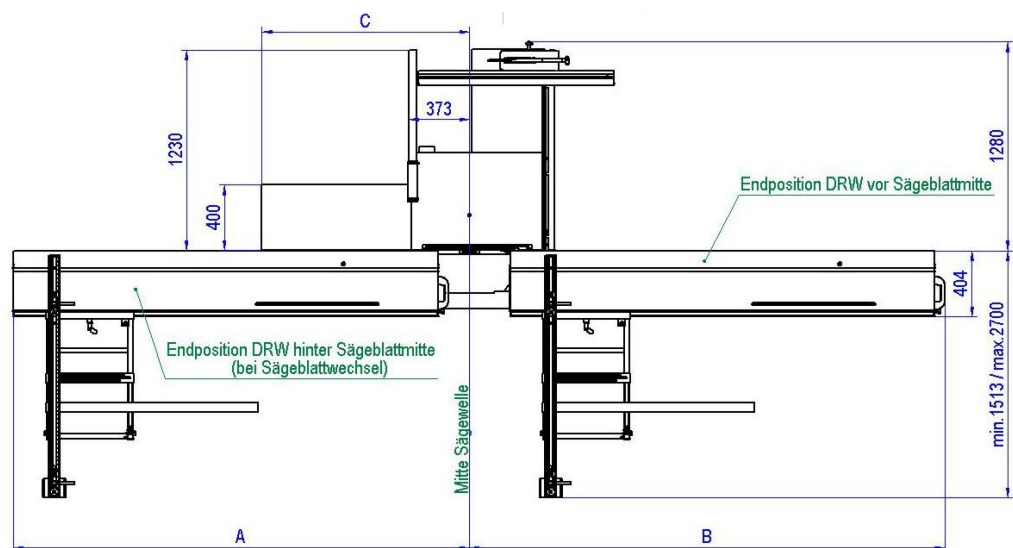
Site of installation

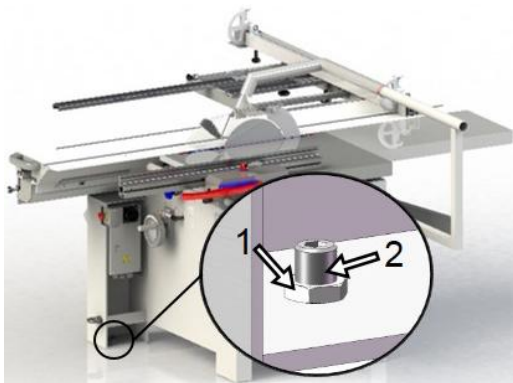
No special foundations are required at the installation site for the sliding table saw. The floor must have a load bearing strength suitable for the machine weight and should be flat and level.

Select an installation site that provides enough clearance around the sliding table saw, allowing for the space requirements shown in the figure and the size of the workpieces to be cut. In addition, observe the safety clearances to parts of the building and other machines in order to eliminate the risk of crushing the operator or other personnel.

Space requirement:

- A sliding table length + 220 mm for sliding table 1600 mm and 2000 mm
Sliding table length + 290 mm for sliding table 2600 mm
- B Sliding table length + 220 mm
- C 873 mm for sliding table 1600 mm and 2000 mm
1273 mm for sliding table 2600 mm





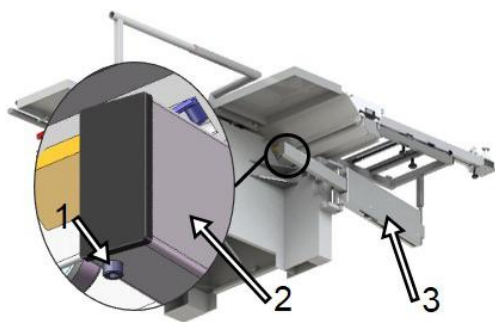
Setting device

A setting device is located underneath the switch box (interior) to ensure a stable position of the machine.

- Undo the nut (1) of the setting device
- Turn in the threaded pin (2) until it makes contact with the floor
- Tighten the nut (1)

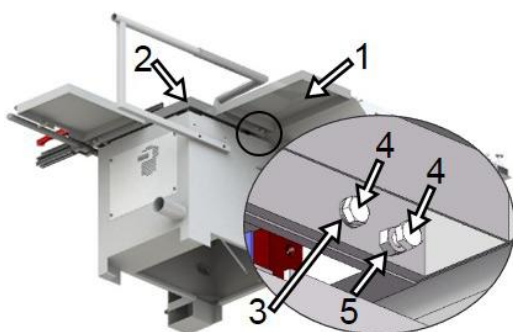
6.3 Installation

6.3.1 Telescopic tube for swinging arm



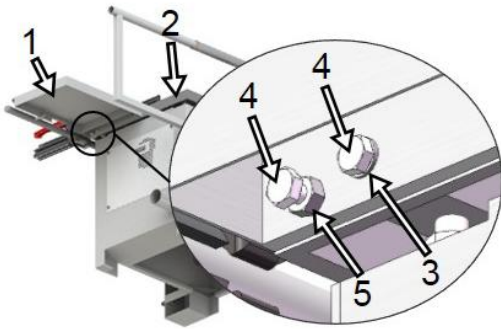
- Turn the cheese-head screw (1) out of the telescopic tube (2)
- Push in the telescopic tube (2) from the front through the pivot arm housing (3)
- Turn in and tighten the cheese-head screw (1)

6.3.2 Main table length extension



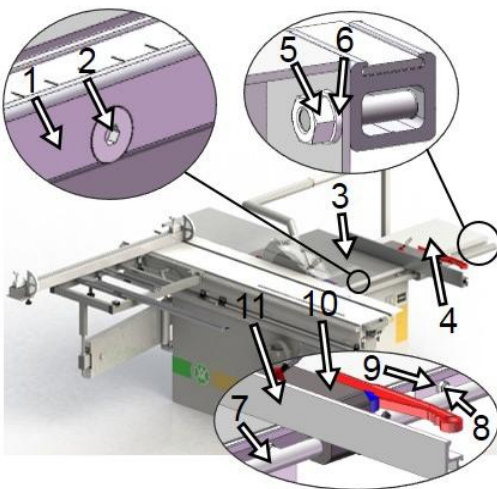
- Align the table top length extension (1) on the table top (2)
- Tighten the washer (3) with the screw (4)
- Turn the nut (5) and screw (4) into the table top length extension (1) and use it to adjust the incline
- Tighten the nut (5)

6.3.3 Main table width extension



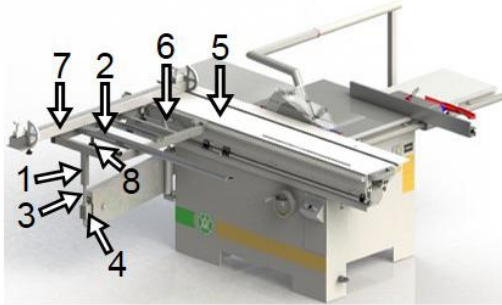
- Align the table top width extension (1) on the table top (2)
- Tighten the washer (3) with the screw (4)
- Turn the nut (5) and screw (4) into the table top width extension (1) and use it to adjust the incline
- Tighten the nut (5)

6.3.4 Rip fence



- Tighten the measuring rail (1) using the screws (2) on the table top (3)
- Use the screw (2) to insert the measuring rail (1) in the table top width extension (4) and tighten it using the nut (5) (washer (6) previously inserted)
- Remove the nuts (8) and one washer (9) each from the round rod with bolts (7)
- Insert the round rod with bolts (7) into the table top (1) holes intended for this purpose and tighten using the nuts (8)
- Use the nut (8) to tighten the round rod with bolts (7) on the table top width extension (4) (washer (9) previously inserted)
- Push the rip fence (10) onto the round rod (7)
- Push the stop profile (11) onto the rip fence (10) and clamp it

6.3.5 Cross slide and crosscut-mitre fence



- Position the supporting pipe (1) of the cross slide (2) on the bolt (3) of the telescopic tube (4)
- Attach the cross slide to any point of the sliding table (5) and use the eccentric lever (6) to clamp it
- Position the crosscut-mitre fence (7) on the cross slide
- Attach and tighten all clamping screws (8)

6.3.6 Sliding table

- Place the bottom carriage on the machine frame and use a special wrench to tighten the outer fastening screws Push against the stop screws prior to tightening.
- Place the middle carriage on the bottom carriage so that the interlock is pointing to the right.
- Push the middle carriage up to the stop.
- **Carefully** push the top carriage onto this set-up. Ensure that the sliding table does not jam and the guide rods are carefully pushed onto the double rollers.
- Push the top carriage towards the left, all the way to the stop.
- Fit the back stop. Check whether the stop on the top carriage and the stop on the bottom carriage hit the end position at the same time and re-align, if necessary.
- Prior to start up, check the setting of the sub-rollers.

6.3.7 Electrical connection

**WARNING!****Dangerous electric voltage!**

All work on the electrical equipment, including connection to the mains supply, may only be performed by a qualified electrician.

Disconnect the machine from the mains supply before working on the electrical equipment.

- A round plug device under the sliding table is used to establish the connection. Use a rubber hose line (H07RN-F), cross section 5x 2.5 mm² as the supply line.
- After connecting the supply line, check the rotational direction of the main saw motor by briefly starting up and, if necessary, correct it.
- Pay attention to the rotational direction arrow on the saw blade cover!
- The owner/user must provide a short-circuit protection!
- Do not route supply lines or the potential-free contact through the support arm.

The controls of an extraction system require a floating contact. An auxiliary contactor can be controlled using a 2-wire control line leading out. The maximum control voltage / current is 240VAC / I_{max}=1A.

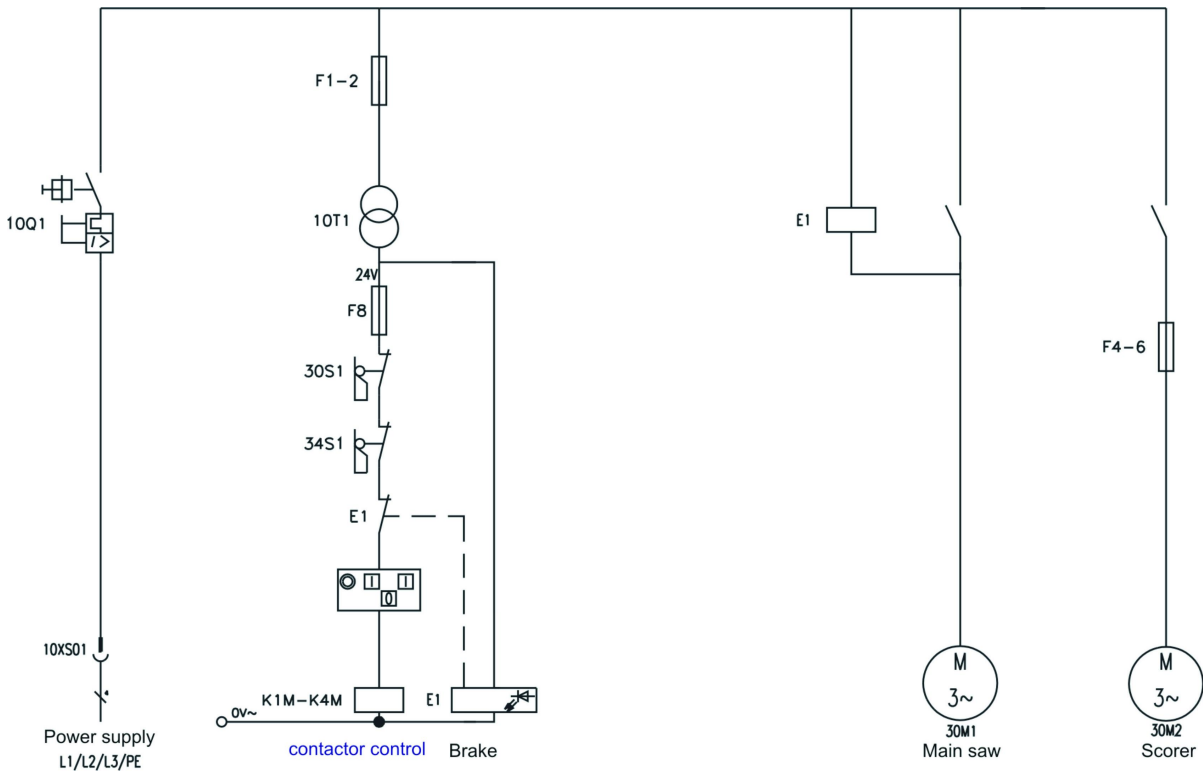


Fig. 6-1 Circuit diagram

Designation	Designation
10Q1	Switch
10EXTS1	Emergency stop button
30S1	Sliding table limit switch
34S1	Saw blade cover limit switch
10E1	Braking device LCB
10F8	Fuse
30M1	Drive motor

6.3.8 Connecting the extraction system (customer side!)

The minimum air speed at the overall connection (D = 120 mm) must be 20 m/s. The sockets and hoses are not part of the scope of delivery! Vacuum at the overall connection D=120 mm - 1300 PA



Fig. 6-2 Extraction nozzle Ø 90 mm



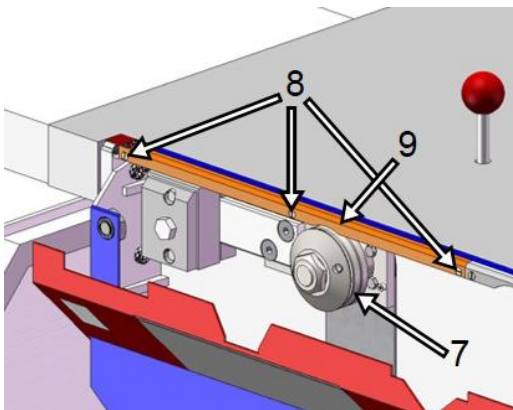
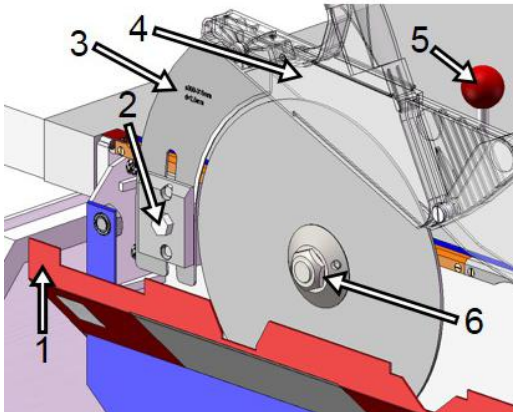
Note!

Observe the following:

- Prior to initial commissioning/start-up, ensure that the air speed of 20 m/s is reached.
- Ensure that the extraction system is switched on together with the machine. A current transformer installed in the supply line may be used for this purpose.
- Check the function of the extraction system at regular intervals!
- A spark-extinguishing system should be installed as a precaution to prevent fires and explosions in filter systems, silos and other production environments.
- Ensure that the extraction system is suitable for extracting aluminium chips!
- Always collect wood, aluminium and plastic chips separately!
- Prior to cutting aluminium, thoroughly clean the machine and remove all remaining dust and chips!

6.3.9 Groove tools

The groove tools require a hole diameter of 30 mm and carrier holes of 10 mm \varnothing on a pitch circle diameter of 60 mm \varnothing . Loose intermediate rings may not be used. The maximum groove width is 20 mm and the maximum hub width is 15 mm. A groove tool of 180 mm \varnothing results in a maximum overhang of 36 mm.



- Switch off the drives.
- Set the saw blade to the max. saw blade overhang and tilt to 0°
- Turn off the main switch
- Move the top carriage to the middle of the saw shaft, and unlock the lock at the saw blade centre by pressing the knob on the middle carriage.
- Move the top carriage to the end position in the cutting direction.
- Fold down the cover plate (1)
- Undo the screw (2)
- Remove the riving knife (3) and protective hood (4)
- Pull the riving knife holder left and tighten the screw (2)
- Push the holding mandrel (5) through the table top and saw shaft
- Unscrew the nut (6)
- Remove the saw blade and front cushioning disc (7)
- Undo the screws (8) of the front table strip and then remove the front table strip (9)
- Before fitting the new groove tool, remove any adhering chips and dust from both flanges
- If necessary, use a cushioning disc based on the groove tool
- Place the groove tool and front flange on the saw shaft, screw in by hand and tighten nut (3)
- Close the protective cover, move the sliding table to its operating position, switch on the main switch and execute a brief trial run to check whether the groove tool operates without problems



WARNING!

The following points must always be observed:

Non-adherence may lead to severe injuries!

- Do not fit any groove tools that are cracked or damaged in any way.


WARNING!

Prior to working with the machine, check the clamping system for the groove tool for firm seating!

6.4 Basic machine setting

Basic machine setting is carried out at our factory during final assembly. It may be necessary to correct the machine's basic settings due to removal of various assembly groups, and transport and installation on site. The machine elements to be checked are described below.

6.4.1 Sub rollers on the sliding table

Check the sub-rollers

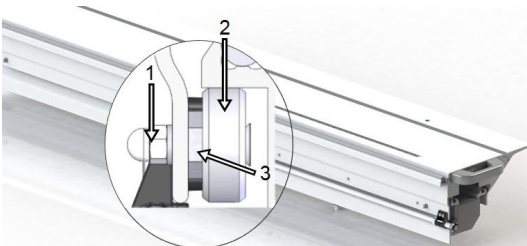
The sub-rollers are set so that they can be held by hand with noticeable force and that they slip while the sliding table is moved. Adjusting them too tightly will result in stiff movement of the sliding table, and can lead to unwanted cutting results.

- Move the top carriage back and forth
- Pull the top carriage back to its initial position
- Ensure that the sub-rollers run across the starting inclines without jolting
- Hold the sub-rollers and move the top carriage, ensure that the sub-rollers can slip through if force is applied

Setting of the sub-rollers

- Slightly undo the nut (1) on the sub-roller (2)
- Turn the eccentric (3) to position the sub-roller
- Tighten the nut

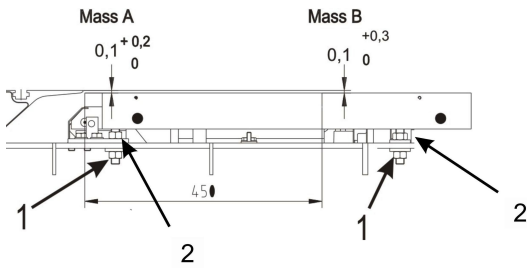
Repeat this process for all sub-rollers.



6.4.2 Main table

Checking the main table

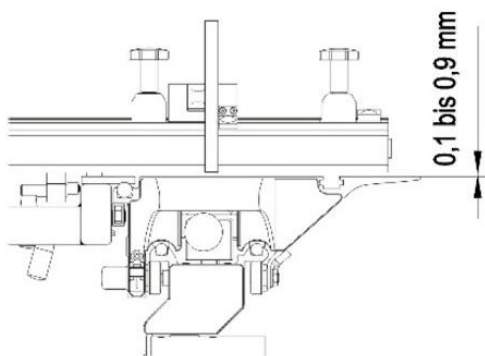
- Position the rip fence straight edge on the sliding table
- Move the centre carriage back and forth
- Ensure that the top carriage is approx 0.1 mm above the level of the table top



Adjusting the main table

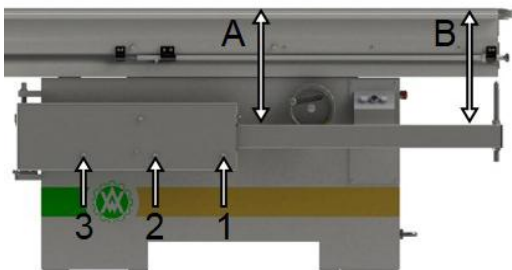
- Undo the lock nut (1)
- Adjust the table top by turning the nut (2) clockwise or counter-clockwise
- Tighten the lock nut

6.4.3 Swinging arm



Check the pivot arm

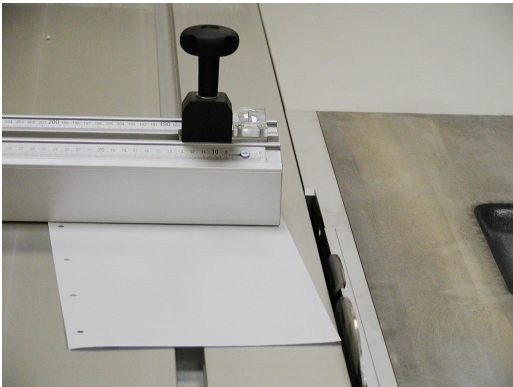
- Lean the pivot arm against the machine stand
- Fully extend the telescopic tube
- Dimension A should be 0.5 mm smaller than dimension B
- Attach the cross slide with the crosscut-mitre fence
- Ensure that the distance between the crosscut-mitre fence and along the sliding table is between 0.1 and 0.9 mm



Setting the pivot arm

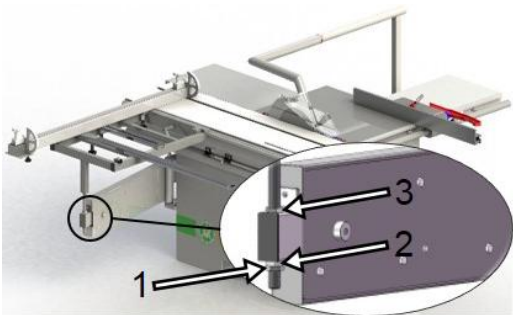
- Release the screws of the guide rollers (1 - 3)
- Use a pin (Ø=8.5 mm) to adjust the guide roller (1)
- Tighten the screw of the guide roller (1)
- Use the pin to bring guide rollers (2 - 3) into contact with the pivot arm

6.4.4 Cross-slide height



Checking the cross-slide height

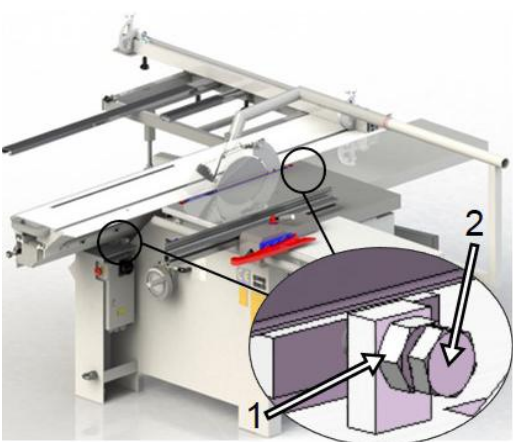
- Push an approx. 0.5 mm thick test object (e.g. cardboard) in between the crosscut-mitre fence and the sliding table
- The test object must slide freely at every position



Setting

- Undo the lock nut (1) and the bottom nut (2)
- Turn the top nut (3) clockwise or counter-clockwise, depending on the incline
- Tighten the bottom nut (2) and lock nut (1)

6.4.5 Setting free cut

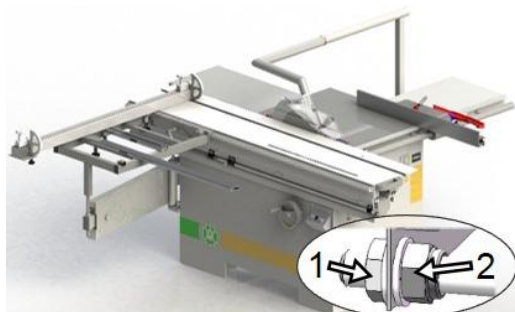


Checking the sliding table free cut

- Set the saw blade to the maximum cutting height
- Position a board (preferably MDF) on the crosscut-mitre fence and cut off a narrow piece
- When the rising teeth pass, only a slight fluttering should be heard compared to the noise of the cutting teeth (cutting up)

Setting the sliding table free cut

- Undo the screws of the support pad
- Undo the lock nut (1)
- Re-adjust the screw (2) accordingly, then lock with the nut
- Adjust the support pad so that it makes contact
- Tighten the screws of the support pad

**Checking the rip fence free cut**

- Set the saw blade to the maximum cutting height
- Position a board of approx. 300 x 450 mm (preferably MDF) on the rip fence and cut off a narrow piece
- When the rising teeth pass, only a slight fluttering should be heard compared to the noise of the cutting teeth (cutting up)

Setting the rip fence free cut

- Undo the nut (1)
- Adjust the locking nut (2)
- Tighten the nut (1)

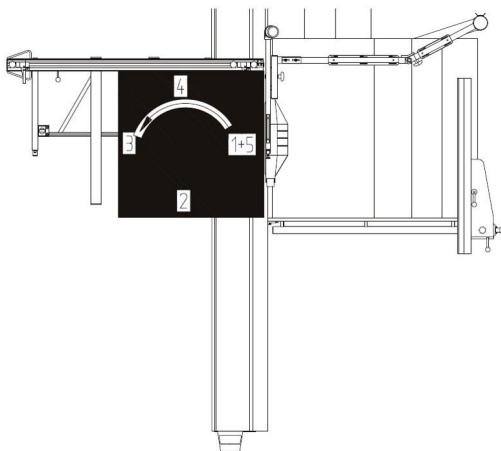
**CAUTION!**

When using a scorer, ensure that both free cuts are set as equal as possible!

6.4.6 Angle cut

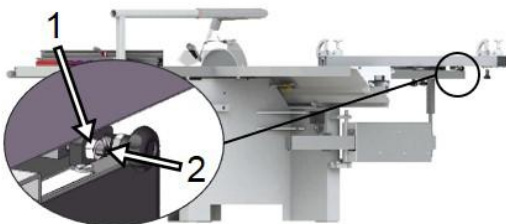
Before checking the angle cut, check the settings of the sliding table (see operating instructions) and of the swinging arm, and correct them if necessary.

The cross-slide is clamped to positions of approx. 300 mm and 1300 mm from the sliding table end. In these two positions, the angle cut is checked and adjusted as described above. Ensure that the setting does not exceed the maximum permissible tolerance of **< 0.2 mm** (for the 5th cut (dimension 1 - dimension 2)).



Checking the angle cut

- Set the saw blade to the maximum cutting height
- Position a board of approx. 1000 x 1000 mm (preferably MDF) on the rip fence and cut off a narrow piece
- Follow steps 1 - 5 (as shown in the figure)
- The 5th step generates a strip which should have a width of approx. 10 mm
- Measure the thickness at both ends of the strip with a vernier calliper
- Divide the difference of the two dimensions by 4 to calculate the angular error per metre of cut length
- Ensure that the difference of the two dimensions does not exceed 0.2 mm
- Repeat the angular cut check on the 2nd position of the sliding table

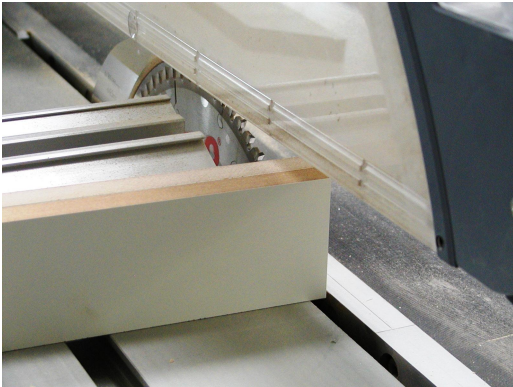


Angular cut setting

- Undo the lock nut (1)
- Adjust the threaded pin (2)
- Tighten the lock nut (1)

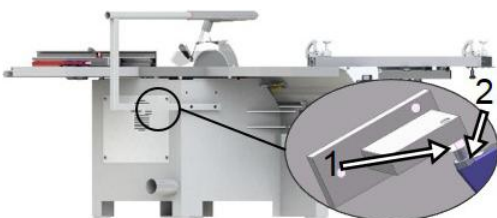
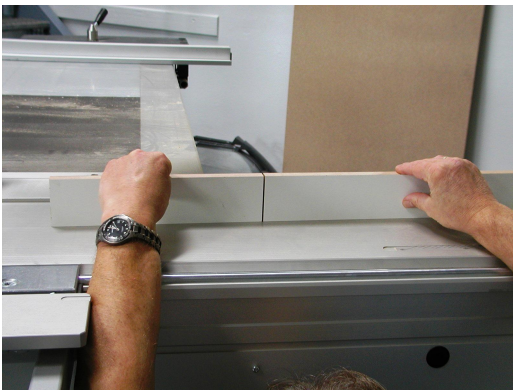
After checking the angle cut, move the crosscut fence to position 2. Repeat the checking and adjustment process, turn the board clockwise during this process.

6.4.7 0° setting of the saw blade



Checking the 0° position of the saw blade

- Set the tilt adjustment to 0°.
- Set the saw blade to the maximum cutting height
- Position 2 strips of approx. 100 x 400 mm upright on the crosscut-mitre fence and cut off a narrow piece
- Hold the cut surfaces against each other and check that they are parallel
- If the setting is correct, the cut surfaces should be parallel, i.e. no gap can be seen between the cut surfaces



Setting the 0° position of the saw blade

- Undo the lock nut (1)
- Adjust the screw (2)
- Tighten the lock nut (1)

7 Operating

7.1 Working with the sliding table saw

The Altendorf® sliding table saw is a universal machine that can be used for various saw cuts. However, the machine must be set up appropriately.

To achieve safe work and a good cutting result with the sliding table saw, ensure that

- only undamaged saw blades are used
- a correctly adjusted riving knife suitable for the saw blade diameter is used
- the protective hood makes contact with the front-most point on the workpiece to be cut, so that an ideal extraction result can be guaranteed

Rotational speed



Note!

After switching on the machine, do not push the workpiece forward until the saw blade has reached its full rotational speed.

Position of the hands

Lay your hands flat on the workpiece with fingers and thumbs close together, and with sufficient safety clearance from the saw blade.

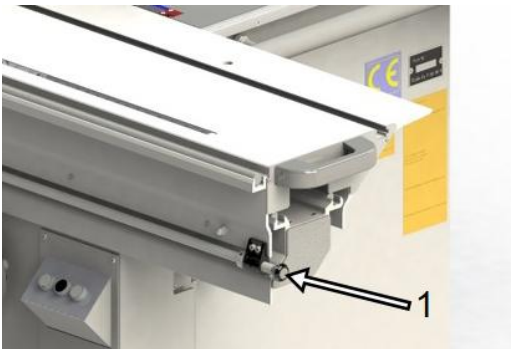
For further information about safe working, refer to the following description of the individual work steps.

7.1.1 Working on the sliding table

The sliding table is used for pushing forward the workpieces to be machined

Function overview

- Top carriage moving freely in the cutting direction
- Cross slide accommodation
- Sliding table interlock



Sliding table interlock

- Turn the star grip (1) clockwise to unlock
- Pull out the star grip and position it on the locking position to lock
- The locking mechanism can lock the sliding table at a middle and a retracted position.

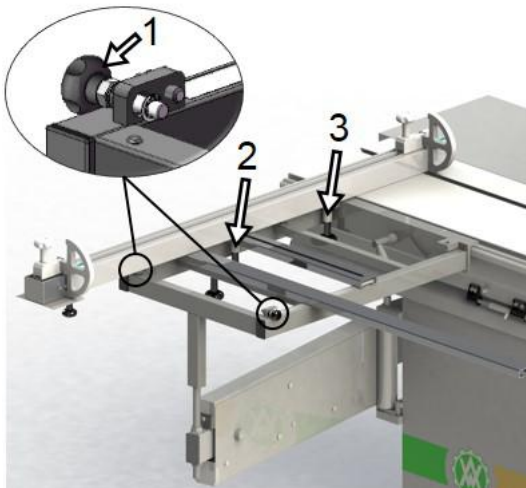
7.1.2 Cutting on the crosscut-mitre fence/cross slide

Function overview

- The crosscut-mitre fence can be positioned in 2 positions
- The crosscut-mitre fence can be swung by 49° (angle indicated on scale)
- Additional clamping at the 90° position
- Movable, fixable C section as an additional workpiece support

Position change

- Release the 90° clamping (1)
- Undo the clamping screw, degree scale (2)
- Turn out the clamping screw, pivot point (3)
- Remove the crosscut-mitre fence from the pivot point and push it to the 2nd position
- Tighten all clamping screws and the 90° clamping



Adjusting the angle

- Release the 90° clamping (1)
- Undo the clamping screw, degree scale (2)
- Undo the clamping screw, pivot point (3)
- Set the crosscut-mitre fence to the required angle
- Tighten all clamping screws

Practical examples

Cutting on the crosscut fence can be executed in two positions on the cross slide



Position 1: Cutting boards

- The operator presses the workpiece against the fence in the cutting direction



Position 2: Cutting solid wood and boards up to 600 mm wide

- The operator pulls the workpiece along the fence against the cutting direction



Note!

When dimensions need to be adjusted with the stop bar, ensure that the flip stop actually makes contact with the fence of the extension.

7.1.3 Cutting on the manually adjustable rip fence

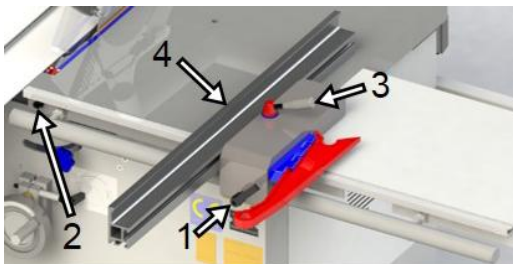
Function overview

- 2 stop fence settings
- Infinitely variable positioning of the fence
- Infinitely variable dimension setting up to a cutting width of 1000 mm

Dimension setting

- Release the clamping (1)
- Set the rip fence to the required dimension
- Tighten the clamping (1)

The dimension scale can be adjusted to the individual tool thickness after releasing the knurled screw (2).



Stop fence position

- Release the clamping (3)
- Pull out the stop fence (4) to remove it
- Turn the stop fence by 90°
- Push the stop fence into position
- Tighten the clamping (3)



WARNING!

Danger of injury!

When cutting widths of less than 120 mm, ensure that the material is fed with a push stick and that the stop fence is laid flat.

Practical examples



Machining short workpieces

- The operator pushes the workpiece against the stop profile and the workpiece is fed either using the sliding table or the guide on the stop profile, depending on the workpiece.



Machining of flat and narrow workpieces

- The operator pushes the workpiece against the stop profile and the workpiece is fed using the sliding table

7.1.4 Working examples

Select a suitable saw blade for each machining process and adjust the protective hood according to the workpiece height.



Edge cutting (trimming)

- Fitting the clamping shoe on the sliding table
- Deposit the workpiece with the hollow side down, and press underneath the clamping shoe.
- Push the workpiece forward by applying pressure on the workpiece edge with the ball of your right hand
- Place your hands at a sufficient safety distance from the tool



Longitudinal cutting of narrow workpieces ≤ 120 mm

- Use the push stick from the very beginning when cutting short workpieces
- Set the rip fence to the required cutting width
- Push the workpiece aligned along the fence forward using the sliding table; use the push stick in the vicinity of the saw blade and push the cut workpiece beyond the riving knife.



Cutting strips

- Bring the fence straight edge to a flat position
- Position the workpiece on the sliding table and press against the rip fence with your left hand
- Push the workpiece forward with the sliding table; use the push stick in the vicinity of the saw blade and push the strip beyond the riving knife



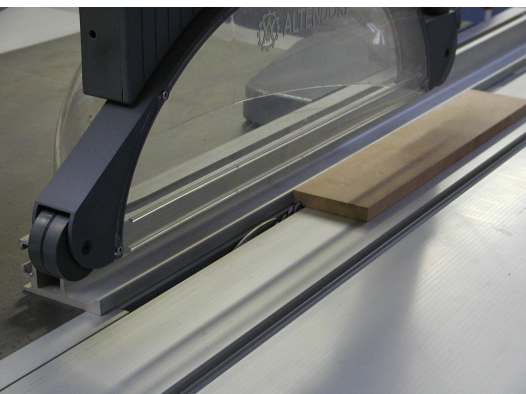
Crosscutting wide workpieces

- Position the workpiece against the crosscut fence and push firmly against the fence with your left hand
- Using the sliding table to push a workpiece forward
- When using the throw-over stop, raise the stop and remove the workpiece from the saw blade before pulling back after the cut, or remove the workpiece behind the riving gear rim.



Concealed cutting, rebating

- Workpiece positioning
- Push the workpiece against the rip fence with your left hand
- Use the sliding table to push a workpiece forward



Concealed cutting, grooving

- When using a groove milling tool, replace the tool (as described in the assembly manual)
- Set the tool to the required groove depth
- Leave the riving knife installed as a rear tool cover
- Use the sliding table to push the workpiece forward while pushing the workpiece onto the table (otherwise there is a risk of an unintended insertion process)



Note!

Always use the crosscut fence when cross-grooving narrow workpieces.



Crosscutting against the rip fence

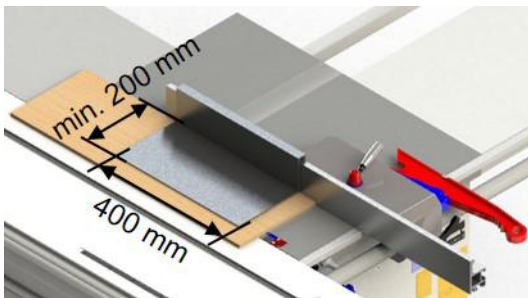
- Position the material so that it is in contact with the crosscut fence
- Set the required dimension on the rip fence
- Position the stop fence in front of the saw blade in the cutting direction
- Use the sliding table to push a workpiece forward


Crosscutting short and narrow workpieces

- Adjust the deflector wedge equipped with a magnet (not part of the scope of supply) so that the workpiece cuts cannot touch the rising section of the saw blade.
- Only feed workpieces using the crosscut fence
- Never remove off-cuts by hand from the vicinity of the tool


Dividing large boards

- Dimensions can be set both on the rip fence and the crosscut fence
- When dividing the board, for instance into parallel strips, the required dimension can be determined by means of the rip fence
- If the cutting width of the rip fence is exceeded, the dimension is set on the crosscut fence


Concealed cutting with protective hood fastened to the riving knife

- Remove the protective hood fastened to the riving knife and the riving knife
- Attach the riving knife suitable for the saw blade (without fastening option for a protective hood)
- Attach the working equipment with the appropriate protective function on the rip fence (ensure that the working equipment consists of easily machinable material positioned at a right angle to the rip fence, 400 mm long and min. 200 mm wide)

7.2 Main switch/Motor protection

Main switch

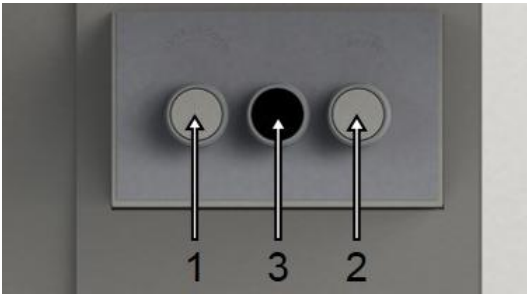
Before turning on the saw drives, the main switch must be moved to setting I. The main switch is marked in BLACK, i.e. this main switch has no EMERGENCY STOP function! When the machine is turned off with the main switch, the saw drives run down without braking!

Motor overload protection

Tripping of a motor overload protection device is a sign for motor overload, the cause of which must be determined and eliminated (e.g. drive blocked due to jammed workpiece, excessive feed or failure of a mains phase).

The drive motor is protected against overload. This overload protection automatically switches off the motor in the event of excessive heat generation. Ensure that the scorer drive is also switched off for machines equipped with a scorer. The motor can only be switched on again when it has cooled down. It may take several minutes (max. 10 min.) for the motor to cool down!

7.3 Switching the saw drives on and off



- Switch on the main saw (1)
- Once the saw blade has reached its full speed, switch on the scoring saw (2)
- Switch off the main and scoring saw (3)



WARNING!

Prior to switching on the machine:

- ensure that all protective devices/guards are attached and have been checked for function
- ensure that the correct clamping of saw blades has been checked
- remove all workpieces and objects near the saw blade
- check the rotational direction of the saw blade by briefly switching it on

When switching on the machine:

- ensure that the extraction system is activated

7.4 Top safety hood/riving knife

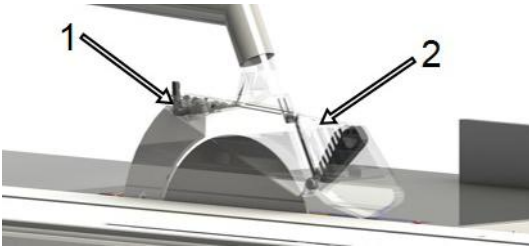
For a max. tool diameter of 315 mm

Function overview

- Chip extraction
- Protective device

Setting

- Release the clamping lever (1)
- Adjust the protective hood (2)
- Tighten the clamping lever



7.5 Adjustment of the main saw blade

7.5.1 Height adjustment

Only set the saw blade overhang as high as necessary.



- Fold out the lever
- Turn the hand wheel
- Fold in the lever

7.5.2 Tilt adjustment



- Undo the clamping
- Turn the hand wheel
- The pivot angle is displayed at the centre of the hand wheel
- Tighten the clamping



WARNING!

Always observe the following points prior to pivoting the saw blade:

- Remove the workpieces located in the pivot section from the table.
- When cutting widths < 130 mm, place the rip fence straight edge to flat position.

7.5.3 Changing the main saw blade



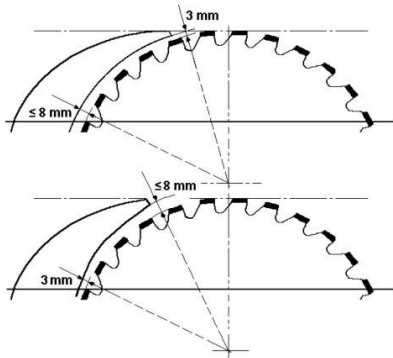
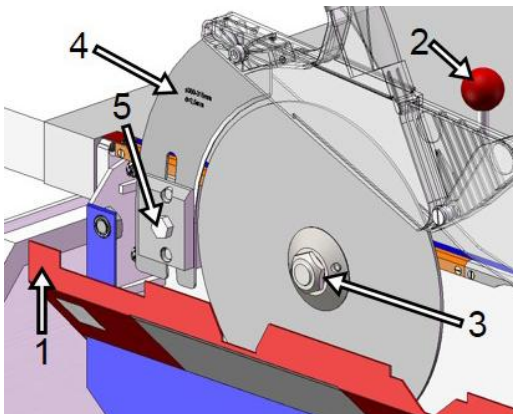
WARNING!

The following points must always be observed:

Non-adherence may lead to severe injuries!

- Do not fit any saw blades that are cracked or damaged in any way.
- Only fit saw blades with a diameter between 250 and 315 mm

Please note that only saw blades with side holes (2 holes 10 mm \varnothing at a spacing of 60 mm) can be fitted. This is necessary to prevent loosening of the saw blade mounting in the course of braking!



- Switch off the drives.
- Set the saw blade to the max. saw blade overhang and tilt to 0°
- Turn off the main switch
- Move the top carriage to the middle of the saw shaft, and unlock the lock at the saw blade centre by pressing the knob on the middle carriage.
- Move the top carriage to the end position in the cutting direction.
- Fold down the cover plate (1)
- Push the holding mandrel (2) through the table top and saw shaft
- Unscrew the nut (3)
- Before fitting the new saw blade, remove any adhering chips and dust from both flanges
- Place the saw blade and front flange on the saw shaft, screw in by hand and tighten nut
- Check the riving knife (4) for thickness and distance from the saw blade
- If these factors are not OK:
 - Undo the screw (5)
 - Adjust or replace the riving knife
 - Tighten the screw
- Remove the holding mandrel
- Close the cover plate and perform a brief trial run to check whether the saw blade operates without problems (during this process, lower the top protective hood all the way down to the table so that the saw blade is fully covered)


WARNING!

Check that saw blade clamping system is tight before operating the machine!



WARNING!

After the saw blade change, attach a suitable riving knife (see riving knife) and adjust the riving knife!

- The distance of the riving knife from the gear rim must be set to between 3 mm and 8 mm.
- The highest point of the riving knife (saw blade protection hoods attached separately from the riving knife) must be set to between 0 and 2 mm under the topmost tooth.
- The riving knife must be at least 0.2 mm thicker than the main saw blade.

7.5.4 Saw blade recommendation

Material	n [rpm]	Rough cut D = 250 mm	Rough cut D = 315 mm	Finished cut D = 250 mm	Finished cut D = 315 mm
Softwood, lengthwise	4200	24 F	28 WS	40 WS	48 WS
Softwood, crosscut	4200	40 WS	48 WS	48 WS	60 WS
Hardwood, lengthwise	4200	24 WS	28 WS	40 WS	48 WS
Hardwood, crosscut	4200	40 WS	48 WS	48 WS / 80 G5	60 WS / 100G5
Veneer	4200	60 WS	72 WS	80 WS / 80 G5	96 WS / 100G5
Pressed laminated wood	4200	40 WS	48 WS	48 WS	60 WS
Coreboard	4200	48 WS	60 WS	60 WS / 80 G5	72 WS / 100G5
Plywood	4200	40 WS	48 WS	60 WS / 80 G5	72 WS / 100G5
Raw chipboard	4200	48 WS	60 WS	60 WS	72 WS
Coated chipboard	4200	60 TF	72 TF	80 TF	96 TF
Raw MDF boards	4200	48 WS	60 WS	60 TR	72 TR
Coated MDF	4200	60 WS	72 WS	80 TF	96 TF
Laminate flooring	4200	60 TF	72 TF	80 TF	96 TF
Hardboard	4200	60 WS	72 WS	80 WS	96 WS
PVC profiles	4200	60 TF	72 TF	48 DD / 80 G5	60 DD / 100G5

Material	n [rpm]	Rough cut D = 250 mm	Rough cut D = 315 mm	Finished cut D = 250 mm	Finished cut D = 315 mm
Acrylic glass	4200	60 WS	72 WS	80 WSmF / 96 WSmTR	96 WSmF / 96 WSmTR
Gypsum plasterboard	4200	48 WS	60 WS	60 WS	72 WS
Aluminium profile	4200	60 TF	72 TF	80 TF / 84 G7 neg	96 TF / D300 Z98 G7 neg

Key: F = Flat tooth; WS = Alternate tooth; WSmF = Alternate tooth with bevel; WSmTR = Alternate tooth with trapezoid tooth; DD = Roof tooth + Duplovitz tooth; TF = Trapezoid tooth + flat tooth; TR = trapezoid tooth; G5 = group tooth system; G7 = group tooth system

Choosing the correct saw blade in accordance with the material to be cut and its thickness, alongside the correct cutting speed, is very important for a clean cut and low stress for the operator. A selection of saw blades for Altendorf® sliding table saws is summarised in this table. This table does not claim to be complete. As the cutting speed is the result of the size and rotational speed of the saw blade, it is absolutely necessary to determine the ideal speed in trial runs to achieve the best possible cutting results! The maximum rotational speed indicated on the tool must not be exceeded. Do not use high-speed steel (HSS) saw blades!

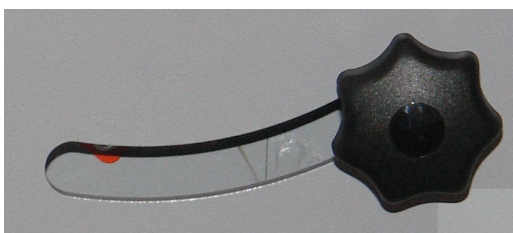
7.6 Adjustment of the scoring saw blade

When processing boards coated on both faces, the scoring unit makes it possible to cut without breakouts on the underside of the board. The scorer cuts into the material from below approx. 1-2 mm; then the main saw blade cuts through it. Make sure that the scoring blade is exactly in line with the main blade and is set to the corresponding width. To achieve optimum cutting results, the scoring blade runs in the workpiece advance direction, i.e. the opposite direction to the main saw blade.

The scoring saw can only be started once the main saw has reached its operating speed (after approx. 5 sec.).

7.6.1 Height adjustment

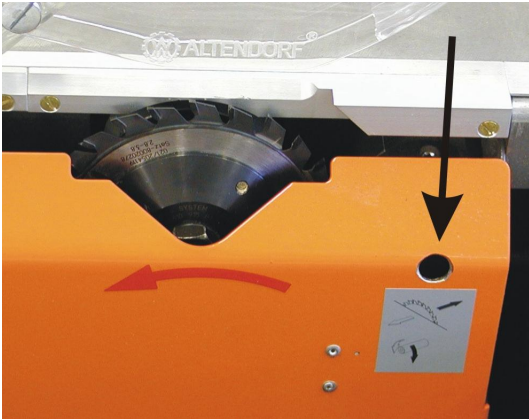
Only set the saw blade overhang as high as necessary.



- Turning the star grip screw

7.6.2 Lateral adjustment

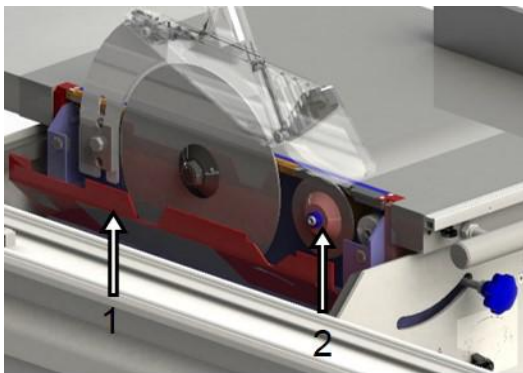
Ensure that the saw blade of the scorer are exactly in line with the main saw blade and adjusted to the corresponding width.



- Position the supplied Allen key
- Turn the Allen key

7.6.3 Changing the main saw blade

The description of how to change the saw blade applies to both divided scoring blades and saw blades with infinitely variable cutting width adjustment. Only use saw blades with a diameter of 120 mm and a hole diameter of 22 mm!



- Switch off the drives.
- Set the scoring saw blades to the max. overhang and tilt to 0°
- Turn off the main switch
- Move the top carriage to the middle of the saw shaft, and unlock the lock at the saw blade centre by pressing the knob on the middle carriage.
- Fold down the cover plate (1)
- Use the supplied tools to unscrew the nut (2)
- Before fitting the new scoring saw blades, remove any adhering chips and dust from both flanges
- Position the saw blade and front flange on the saw shaft and tighten the nut

7.6.4 Saw blade recommendation

We recommend using two-part scoring blades which can be set to the required blade thickness by inserting spacer discs.

- The cutting line of the scoring blade should be approx. 0.1 mm wider than the main saw blade, i.e., 0.05 mm to each side. In addition, the two scoring blades should have carrier pins and their thickness should be marked on the spacer discs.

- The scoring saw can only be started after the main saw blade has reached its operating speed (after approx. 5 sec.). To do so press the push button I labelled with the scoring saw symbol on the panels.

**Note!**

Only use the supplied tools for adjustment work!

7.7 Optional modules

7.7.1 RAPIDO® scoring saw

The RAPIDO® **scoring tool** facilitates and accelerates cutting width adjustment, as it permits infinitely variable adjustment to the main saw blade cutting width without dismantling the two saw blades.

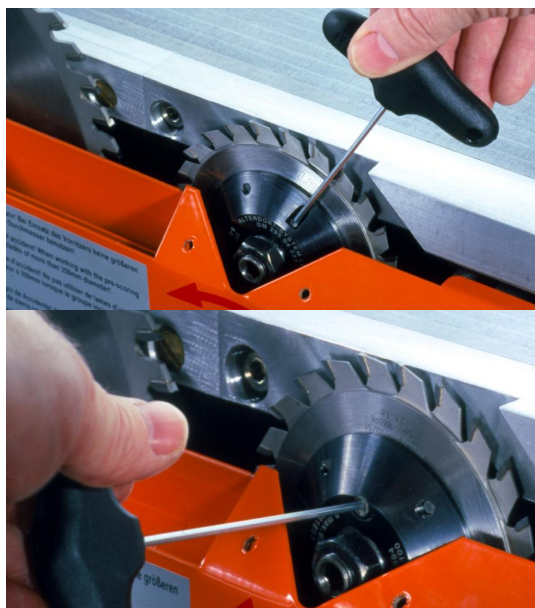
Height adjustment and saw blade change

see chapter "Adjusting the scoring blade"

**CAUTION!**

The following must also be observed when using RAPIDO® scoring blades with infinitely variable cutting width adjustment:

- Failure to comply with the operating instructions inadmissibly reduces Health and Safety at Work and excludes any claims for liability.
- Incorrect use and use other than that intended is forbidden.
- Permissible cutting widths 2.8 - 3.8 mm
- Take particular caution when unpacking and packaging the adjustment unit, danger of injury!
- Only store the adjustment unit in the original packaging!
- Fit the scoring blade outside of the machine
- Make sure that all connection elements are fitted.
- Only use original spare parts in the case of loss or damage to the connection elements!

**Width adjustment**

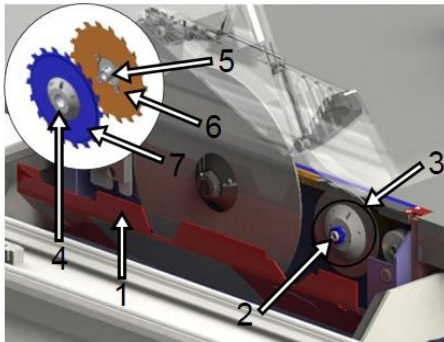
- Release the clamping screw, approx. 2 turns.
- Turn the spindle until the required dimension is reached (1 rotation = 0.5 mm)
- Tighten the clamping screw
- Make a test cut and, if necessary, correct the cutting width again as described above.

**Note!**

Only use the supplied tools for adjustment work!

Scoring blade change

- Switch off the drives.
- Set the scoring saw blades to the max. overhang and tilt to 0°
- Turn off the main switch
- Move the top carriage to the middle of the saw shaft, and unlock the lock at the saw blade centre by pressing the knob on the middle carriage.
- Fold down the cover plate (1)
- Use the supplied tools to unscrew the nut (2)
- Remove the RAPIDO® unit (3) (the clamping screw may have to be loosened)
- Undo the clamping screw.
- Turn the spindle clockwise until the flange (4) can be removed from the holder (5)
- Undo the screws and remove the scoring saw blades
- Clean the flange (4) and screws (6) (ensure that the running and flange surfaces are dry and free of dust)
- Position scoring blades (note rotational direction and hole pattern): The circular saw blade (7) is in full contact with the flange (4) and the shoulder on the scoring saw blade must point to the contact surface
- Tighten the screws with 8.6 Nm
- Position the flange on the intake fixture
- Turn the spindle counter-clockwise until the required spacing is reached
- Tighten the clamping screw
- Install the RAPIDO® unit on the shaft
- Tighten the nut


Prohibitory!

Do not apply oil or grease!

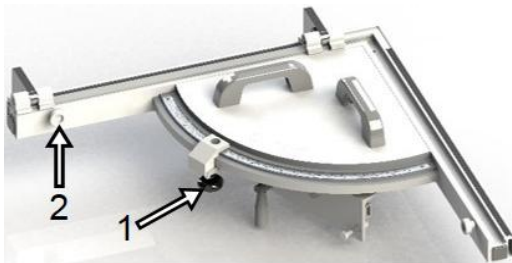
7.7.2 Double-sided mitre fence DUPLEX

Function overview

- infinitely adjustable from 0° to 90°
- circular scale with 0.25° pitch
- positioning at any point of the sliding table
- option of crosscutting workpieces of up to 1350 mm in length (when the extended stop fence is used, up to 2150 mm in length)
- stop bar (with 2 throw-over stops) can be used in both stop profiles

Adjusting the angle

- Release the clamping screw (1)
- Set the required angle
- Tighten the clamping screw (1)



Dimension setting

- Release the clamping screw (2)
- Set the stop bar to the required dimension
- Tighten the clamping screw (2)

Attach the supplied threaded pin for assembly of an F25, WA6, WA8 and WA80.



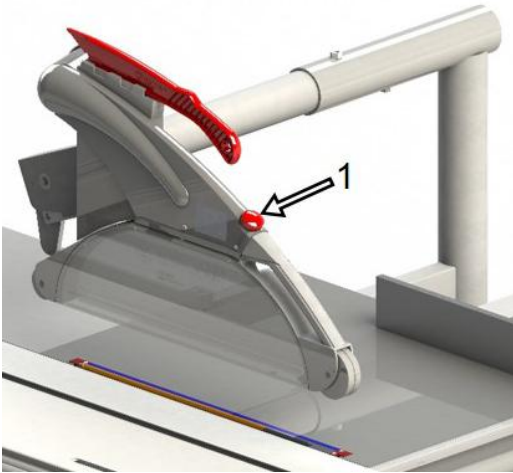
Note!

If the DUPLEX option was selected, separate instructions are enclosed!

7.7.3 Large protective hood

The same safety requirements as for the "protective hoods fastened on the riving knife" apply, in addition to:

Prior to setting the saw blade to an incline, attach a suitable protective hood.



Changing the protective hood

- Undo the knurled screw (1)
- Attach a suitable protective hood
- Tighten the knurled screw (1)

8 Cleaning / maintenance

8.1 Safety measures



WARNING!

Please observe:

- Always turn off the main switch and secure it against being turned on again before doing any maintenance work!

Non-observance can lead to severe injuries!



Note!

Before using solvents and cleaning agents, make sure that these substances do not cause damage to the painted, anodised or galvanised surfaces as well as plastic parts. For information on these substances, please refer to the safety data sheets (available from the manufacturers of the solvents or cleaning agents.)

8.2 Maintenance/cleaning by the user



Note!

Regular cleaning of the **machine** and the **machine environment** prolongs the life of the machine, is prerequisite for perfect cutting results and reduces the risk of accidents.

Pay attention to the following:

- Machine table
- Sliding table
- Sliding table guides
- Round rod, rip fence
- Machine interior
- Machine environment

Interval	Components to be cleaned	Remove/clean with
Daily	Machine table Top and bottom carriage	<ul style="list-style-type: none"> Vacuum or brush
Weekly	Top carriage <ul style="list-style-type: none"> Sub-rollers Guide rods (internal) Bottom carriage <ul style="list-style-type: none"> Guide rods Bottom guide Round rod (rip fence)	<ul style="list-style-type: none"> Wipe off
Monthly	Pivot arm: <ul style="list-style-type: none"> Guide rollers 	<ul style="list-style-type: none"> Wipe off
Every 6 months	Bottom carriage <ul style="list-style-type: none"> Guide rods Round rod (rip fence)	<ul style="list-style-type: none"> Wipe off Oil Move 20 times Wipe off Wipe off guide rods of the top carriage

Type of soiling	Remove/clean with
Chips and dust	Vacuum cleaner, brush, cleaning cloth
Resin residue	Nitro thinner
Resin residue <i>on the sliding table guide</i>	Cleaning cloth, petroleum, spirit
Avoidance of	Necessary subsequent treatment
Rust formation	Universal oil


WARNING!
NEVER APPLY RESIN REMOVER TO ANODIZED SURFACES!

- Do not allow resin removing cleaning agents to corrode the aluminium surfaces!
- It is very important to adhere to the manufacturer's specifications!



Note!

Remove the oil from all lubricated points using a cloth!

Sliding table

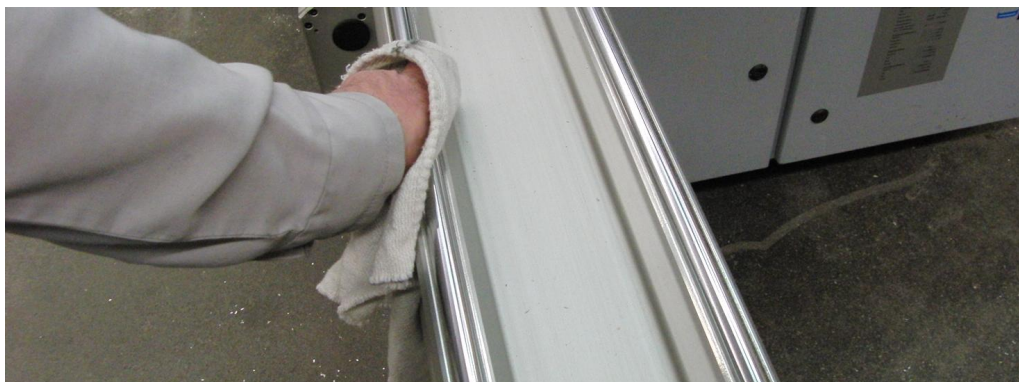


Fig. 8-1 Remove dirt and resin residue from the **guide of the sliding table** using a cloth soaked in spirit



Fig. 8-2 Remove dirt from the **bottom of the guide of the sliding table**



Fig. 8-3 Cleaning of the **sub-rollers of the sliding table**

Round rod (rip fence)

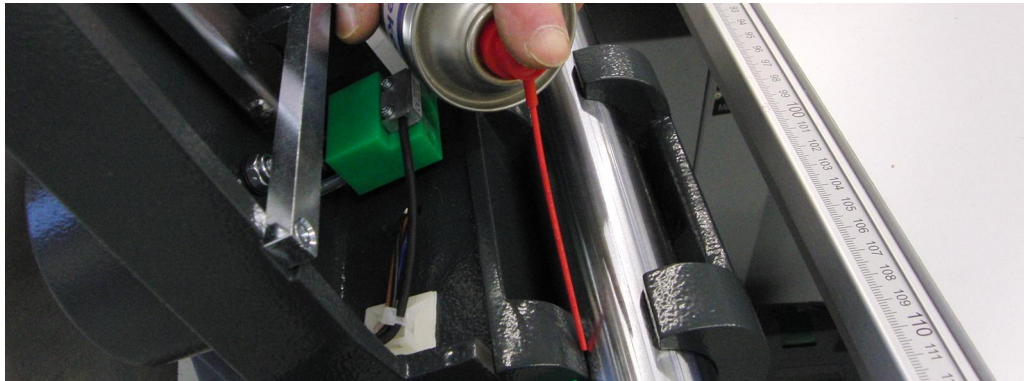


Fig. 8-4 Spray round bar. Subsequently move the block up and down.

8.3 Repair/maintenance by the user

- The bearings of the main saw shaft and scoring saw shaft are encapsulated and lubricated for life, making relubrication unnecessary.
- The electronic brake of the main saw unit is not subject to wear!

9 Faults/problems/troubleshooting



WARNING!

As a rule, troubleshooting involves a higher risk.

For this reason, pay particular attention to safety aspects when carrying out the necessary measures.

- Turn off the main switch and secure it against being turned on again

Fault	Cause	Troubleshooting
<p>The machine cannot be switched on.</p>	<p>The main switch is not turned on.</p> <p>Power failure or phase failure</p> <p>Overload protection has responded.</p> <p>Sliding table moved over saw blade centre line.</p> <p>EMERGENCY STOP button pressed.</p> <p>Bottom cover plate in front of the saw blades is open</p> <p>Control circuit fuses defective</p>	<p>Turn the main switch to switch position "I".</p> <p>Wait for power to be reinstated, or eliminate cause for loss of power, check factory fuses.</p> <p>Wait until the motor has cooled down</p> <p>Pull back the sliding table upstream of the saw blade centre line.</p> <p>Rearm EMERGENCY STOP button by pulling</p> <p>Close the cover plate</p> <p>Turn off the main switch, open the switch cabinet and identify which of the fuses F1, F2, F8 is defective. Find and eliminate the cause. Replace defective fuses, only using fuses of the same rating!</p>
<p>The machine switches off automatically during operation.</p>	<p>Power failure in one or several phases due to responding factory fuses.</p> <p>Overload protection has responded due to blunt saw blade or excessive feed speed.</p>	<p>Eliminate cause of phase failure.</p> <p>Change saw blade or reduce feed speed. Wait until the motor has cooled down</p>

Fault	Cause	Troubleshooting
	Control circuit fuses defective	Turn off the main switch, open the switch cabinet and identify which of the fuses F1, F2, F8 is defective. Find and eliminate the cause. Replace defective fuses, only using fuses of the same rating!
Workpiece jammed while feeding forward.	Blunt saw blade Riving knife thickness does not match the saw blade used.	Fit a sharp saw blade. Fit the correct riving knife; it must be thicker than or equal to the thickness of the main saw blade.
The finished size of the cut workpiece does not match the cutting width set on the rip fence.	Dimension scale for cutting width display is misadjusted.	Reset the dimension scale: Cut a workpiece at the rip fence, precisely measure the cut width and position the measuring scale so that the measured cutting width is displayed on the fence edge.
The finished size of the cut workpiece does not match the cutting width set on the crosscut fence.	Dimension scale for cutting width display is misadjusted.	Reset the dimension scale: Cut a workpiece at the crosscut stop, precisely measure the cut width and position the measuring scale so that the magnifying glass display matches the measured cut width.
Pivot arm does not move smoothly.	Soiled telescopic tube or track rollers	Clean telescopic tube or track rollers; check wiper.
Sliding table has lateral play.	Sub-rollers incorrectly set.	Set the sub-rollers.
In its end positions, the sliding table is higher than the machine table.	Sub-rollers incorrectly set.	Set the sub-rollers.
Saw blade burns on the sliding table side.	Insufficient free cut on sliding table Excessive free cut on the rip fence	Readjust the free cut. Readjust the rip fence.
Saw blade burns on the rip fence side.	Insufficient free cut on rip fence	Readjust the free cut.
Saw blade burns on both sides.	Incorrect free cut setting.	Readjust the free cuts.

Fault	Cause	Troubleshooting
	<p>Workpiece jammed.</p> <p>Operating error</p>	<p>Insert a riving knife in the cutting line or use a wider riving knife.</p> <p>Guide the workpiece either at the LH or the RH fence. Do not guide the workpiece on the rip fence when cutting with the sliding table.</p>
<p>Workpiece has burn marks.</p>	<p>Blunt saw blade</p> <p>Feed too low</p> <p>Saw blade has too many teeth.</p> <p>Incorrect free cut</p>	<p>Change the saw blade.</p> <p>Increase the feed rate.</p> <p>Change the saw blade.</p> <p>Readjust the free cut.</p>
<p>Break-outs in spite of scorer</p>	<p>Scorer not aligned with main saw blade</p> <p>Scoring blade too narrow</p>	<p>Readjust free cuts; the free cut should be almost "0".</p> <p>Adjust saw width.</p>
<p>Workpiece rises when cut with the scorer.</p>	<p>Blunt scoring blade</p> <p>Cutting height too low</p>	<p>Exchange the sawing blade.</p> <p>Set the scoring blade higher.</p>

10 Technical data

10.1 Standard equipment

Main saw	Tool holder diameter Saw blade tilting range Idling speed	30 mm 0 - 46° 4200 rpm
Sliding table	Sliding table cutting length	See table
Crosscut-mitre fence	Cutting to length on the crosscut-mitre fence	2600 mm
Rip fence	Cutting width at rip fence	1000 mm
Scoring saw	Saw blade Ø Tool holder Ø Idling speed	120 mm 22 mm 8200 rpm
Extraction	Bottom connection diameter Top connection diameter Overall vacuum connection Ø 120 mm Air speed Minimum air volume	100 mm 50 mm 1300 PA 20 m/s 565 m ³ /h
Ambient conditions	Operating temperature Max. relative humidity <i>Do not expose the machine to a gaseous environment which is explosive or may cause corrosion!</i>	10 - 40 °C 90 %, no condensation
Weight	Machine weight, dependent upon equipment	Approx. 450 kg
Electrical equipment	Voltage (V) +5%, -10% Main saw motor Scoring saw motor	see type plate 4 kW 0.37 kW

Sliding table cutting lengths

Maximum cutting length for placing board material against the crosscut-mitre fence. These cutting lengths refer to mechanical travel paths, i.e. from end stop to end stop on the sliding table.

Sliding table length [mm]	1600	2000	2600
Cutting length [mm] With or without scoring blade	1450	1850	2500

Usable saw blades:

Saw blade diameter [mm]	250	300	315	350*
Saw blade height, vertical [mm]	0 - 72	0 - 97	0 - 104	0 - 122
Saw blade height at 45° [mm]	0 - 50	0 - 68	0 - 72	0 - 85

* non CE

11 Maintenance and repairs

11.1 General

Keeping a supply of the most important spare and wear parts on site is an important prerequisite for the constant functioning and operating capability of the sliding table saw. We only accept a guarantee for original spare parts supplied by us. We expressly point out that original spare parts and accessories not supplied by us have not been checked and released by us. Therefore, the fitting and/or use of such products may negatively influence the properties of the sliding table saw and thus impair its active and/or passive safety. Altendorf GmbH will not accept any liability or guarantee for damage resulting from the use of non-original spare parts and accessories.

Please note that special production and delivery specifications exist for our own and our suppliers' parts, and that we always supply spare parts that meet the latest state of the art and comply with the latest statutory regulations.

Please refer to the spare parts list when ordering spare parts.

For further information please refer to the spare parts drawings included in the spare parts list.

When ordering spare parts, please state the following information:

- Machine no.
- Article no.

11.2 Customer service addresses

Altendorf GmbH
Service department

Wettinerallee 43/45
D-32429 Minden

Post office box
D-32377

Phone: +49 571 9550222
Telefax: +49 571 9550111
e-Mail: service@altendorf.de
www.altendorf.com

