
Operating manual WA 80[®]

GB

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Table of contents

1	Foreword	
2	Identification	
2.1	Machine identification	7
2.2	Certificates.....	8
2.3	Marks of conformity	18
3	Product description	
3.1	Marking, pictographs	19
3.2	Intended use.....	19
3.3	Dimensions and weights.....	25
3.4	Auxiliary power/power requirements	26
3.5	Emissions	28
3.5.1	Noise - characteristic values.....	28
3.5.2	Electromagnetic compatibility	28
3.5.3	Dust	29
3.5.4	Ambient conditions	29
3.5.5	Maintenance / cleaning.....	29
3.6	Safety information.....	33
3.6.1	Operational safety	33
3.6.2	Safety devices	36
3.6.3	Top safety hood/riving knife.....	37
3.6.4	Checking protective devices.....	38
3.6.5	Handling batteries / accumulators	39
4	Definitions	
4.1	Description of machine	41
4.2	Terms	42
5	Installation	
5.1	Transport and storage	43
5.2	Safety measures before use/installation.....	43
5.3	Installation	46

5.3.1	Telescopic tube for swinging arm	46
5.3.2	Main table length extension	47
5.3.3	Rip fence	48
5.3.4	Cross-slide and crosscut fence	51
5.3.5	Sliding table	60
5.3.6	Electrical connection	62
5.3.7	Connecting the extraction system (customer side!)	63
5.3.8	Basic machine setting	66
6	Operating	
6.1	Working safely with the dimension saw	74
6.1.1	Cross-slide/crosscut fence	74
6.1.2	Rip fence	77
6.1.3	Double roller carriage	79
6.2	Working examples	80
6.3	Machine operation	88
6.3.1	Main switch/Motor protection	88
6.3.2	Switching the drives on and off	89
6.3.3	Setting the speed	90
6.3.4	Changing the main saw blade	91
6.3.5	Saw blade recommendation	93
6.3.6	Table locking	95
6.3.7	Rip fence fine adjustment	96
6.4	Machine control system	96
6.4.1	Adjustment of the main saw blade	96
6.5	Protection hood	99
6.6	Optional modules	101
6.6.1	Rip fence with DIGIT X	101
6.6.2	Scoring saw	104
6.6.3	Motor driven rip fence	109
6.6.4	Dimension display unit DIGIT L	110
6.6.5	PALIN	113
6.6.6	STEG (second support)	116
6.6.7	Workpiece hold-down device	116
6.6.8	Mitre fences	119
7	Faults	

8 Technical data

8.1	Standard equipment	127
8.2	Special equipment	129

9 Maintenance and repairs

9.1	General	131
9.2	Customer service addresses	132

1 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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2 Identification

2.1 Machine identification

The type label attached to the machine stand is used to determine the machine identity and further important key data.

Meaning of the specified designations:

Wilhelm Altendorf GmbH & Co. KG Wettinerallee 43/45 32429 MINDEN/GERMANY	
Formatkreissäge/Scie à format/Sliding table saw Typ/Type _____ Nummer/Numéro/Number _____ Baujahr/Année/Year _____ Sägeblatt/Lame de scie/Sawblade min. Ø _____ mm Sägeblatt/Lame de scie/Sawblade max. Ø _____ mm	
Elektrischer Anschluß Raccordement électrique Electrical connection Gesamtanschlussleistung La consommation totale _____ kW Total connected load _____ kW Spannung/Tension/Voltage _____ V Strom/Courant/Current _____ A Frequenz/Fréquence/Cycles _____ Hz Phasenzahl/Fases/Phases _____ 3	
Hauptmotor/Moteur principale/Main motor Fabrikat/Fabricant/Manufacturer _____ Typ/Type _____ Leistung/Puissance/Power _____ kW Nummer/Numéro/Number _____	
Vorritzermotor/Moteur inciseur/Scoring motor Fabrikat/Fabricant/Manufacturer _____ Typ/Type _____ Leistung/Puissance/Power _____ kW Nummer/Numéro/Number _____	
Field supply fuse _____ Largest motor _____ Max. short circuit current _____ Enclosure Type rating _____	

Fig. 2-1 Type label

Typ:	Machine designation
Nummer:	Machine-specific identification number
Baujahr:	Year when machine was made
Sägeblatt min Ø	Diameter of the smallest permitted saw blade
Sägeblatt max Ø	Diameter of the largest permitted saw blade
Führungsschlitzbreite des Spaltkeils:	Diameter of the guide pins for the riving knife in the riving knife holder

2.2 Certificates

CE 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 80 [®]
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, 25.10.2018

 Karl-Friedrich Schröder, Head of Research & Development

EC prototype testing certificate

Bescheinigung
Nr. HO 201046
vom 06.05.2020



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 80

Prüfgrundlage: GS-HO-01:08.2013 Holzbearbeitungsmaschinen

Zugehöriger Prüfbericht: 120002FE20

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

Mitgeprüfte Ausstattung: siehe Anlage

Nachfolgebescheinigung zu Nr. HO 151095 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.



PZB02 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

DGUV Test Prüf- und Zertifizierungsstelle Holz
Fachbereich Holz und Metall
Vollmoellerstraße 11 • 70563 Stuttgart • Deutschland
Telefon: +49 (0) 7 11 33 34-11 171 • Fax: +49 (0) 7 11 33 34-21 171



Anlage zu EG-Baumusterprüfbescheinigung Nr. HO 201046, Ausstellungsdatum 06.05.2020

WA 80
Hauptsägeblatt-Ø bis 450 mm
Vorritzsägeblatt
Kraftbetätigte Verstellung des Sägeaggregates (Höhe, Neigung)
Kraftbetätigte Verstellung des Parallelanschlags
Gehrungsanschlag
Digitale Schnittbreitenanzeige für den Parallel- und Queranschlag
Bedientableau

Stuttgart, 06.05.2020



Leiter der Prüf- und Zertifizierungsstelle
Frank Hagendorff



GS test certificate

Zertifikat
Nr. HO 201047
vom 06.05.2020

**GS - Zertifikat**

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

Produktbezeichnung: **Formatkreissägemaschine**

Typ: WA 80

Prüfgrundlage: GS-HO-01:08.2013 Holzbearbeitungsmaschinen

Zugehöriger Prüfbericht: 120002FE20

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

Mitgeprüfte Ausstattung: siehe Anlage

Nachfolgebesccheinigung zu Nr. HO 151096 vom 14.03.2019.

Das geprüfte Baumuster stimmt mit den in § 21 Absatz 1 des Produktsicherheitsgesetzes genannten Anforderungen überein. Der Zertifikatsinhaber ist berechtigt, das umseitig abgebildete GS-Zeichen an den mit dem geprüften Baumuster übereinstimmenden Produkten anzubringen. Der Zertifikatsinhaber hat dabei die umseitig aufgeführten Bedingungen zu beachten.

Dieses Zertifikat einschließlich der Berechtigung zur Anbringung des GS-Zeichens ist gültig bis: **05.05.2021**

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



F. Hagendorf
Frank Hagendorf
Leiter der Prüf- und Zertifizierungsstelle



PZB04 Deutsche Gesetzliche Unfallversicherung (DGUV) e.V.
01.18 Spitzenverband der gewerblichen Berufsgenossenschaften
und der Unfallversicherungsträger der öffentlichen Hand
Vereinsregister-Nr. VR 751 B, Amtsgericht Charlottenburg

DGUV Test Prüf- und Zertifizierungsstelle Holz
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Telefon: +49 (0) 7 11 13 34-11 171 • Fax: +49 (0) 7 11 13 34-21 171



Anlage zu GS - Zertifikat Nr. HO 201047, Ausstellungsdatum 06.05.2020

WA 80
Hauptsägeblatt-Ø bis 450 mm
Vorritzsägeblatt
Kraftbetätigte Verstellung des Sägeaggregates (Höhe, Neigung)
Kraftbetätigte Verstellung des Parallelanschlags
Gehrungsanschlag
Digitale Schnittbreitenanzeige für den Parallel- und Queranschlag
Bedientableau

Stuttgart, 06.05.2020

F. Hagendorff

 Leiter der Prüf- und Zertifizierungsstelle
 Frank Hagendorff



DGUV Test Certificate

Zertifikat
Nr. **HO 201048**
vom 06.05.2020

**DGUV Test - Zertifikat**

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

Produktbezeichnung: **Formatkreissägemaschine**

Typ: WA 80

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

Zugehöriger Prüfbericht: 120002FE20

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: siehe Anlage

Nachfolgebesccheinigung zu Nr. HO 151097 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.





Anlage zu DGUV Test - Zertifikat Nr. HO 201048, Ausstellungsdatum 06.05.2020

WA 80
Hauptsägeblatt-Ø bis 450 mm
Vorritzsägeblatt
Kraftbetätigte Verstellung des Sägeaggregates (Höhe, Neigung)
Kraftbetätigte Verstellung des Parallelanschlags
Gehrungsanschlag
Digitale Schnittbreitenanzeige für den Parallel- und Queranschlag
Bedientableau




Stuttgart, 06.05.2020




F. Hagendorf

 Leiter der Prüf- und Zertifizierungsstelle
 Frank Hagendorf

Certificate renewal

		 DGUV Test Prüf- und Zertifizierungsstelle Holz Fachbereich Holz und Metall	
		Europäisch notifizierte Stelle Kenn-Nummer 0382	
<hr/>			
DGUV Test, Prüf- und Zertifizierungsstelle Holz, FBHM Volkmolenstraße 11, 70563 Stuttgart			
Altendorf GmbH Wettinerallee 43/45 42429 Minden			
Datum: 20.04.2021			
Bearbeitungsnummer 120002FE20-2:			
EG-Baumusterprüfbescheinigung		Nr. HO 201046 vom 06.05.2020	
GS-Zertifikat		Nr. HO 201047 vom 06.05.2020	
DGUV Test-Zertifikat		Nr. HO 201048 vom 06.05.2020	
Sehr geehrte Damen und Herren,			
aufgrund der am 14.04.2021 erfolgten Feststellung Nr. 120002FE20-2 werden die Gültigkeiten der oben genannten Prüfbescheinigung und Zertifikate der Baureihe WA 80 verlängert bis:			
19.04.2022			
Dieser Nachtrag ergänzt die Prüfbescheinigung und Zertifikate 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 DE57 38040007 0333320001 BIC COBADEFFXXX USHD-Nr. DE123382489	Telefon +49 5131 802-11171 Fax +49 5131 802-21171 E-Mail pz-holz.fbhm@bghm.de

C US certificate





Certificate

Certificate no. CU 72101078 01




License Holder: Wilhelm Altendorf GmbH & Co. KG Wettiner Allee 43-45 D-32429 Minden Germany	Manufacturing Plant: Wilhelm Altendorf GmbH & Co. KG Wettiner Allee 43-45 D-32429 Minden Germany
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Test report no.: USA-UH 30471584 004 Tested to: UL 987:1994 R9.00 C22.2 No. 105-1953 (R2004)	Client Reference: Rolf Tweer
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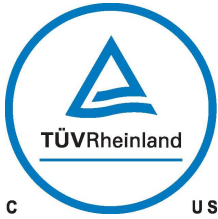
Certified Product: Dimension Saw	License Fee - Units
Model Designation: WA 8, WA8, WA8.2006, F92T, WA 80	7
Rated Voltage: 1) AC 220V, 60Hz (3-phase) 2) AC 440V, 60Hz (3-phase) 3) AC 565V, 60Hz (3-phase)	
Rated Current: 1) 25.5A 2) 12A 3) 8.5A	
Protection Class: I	
Special Remarks: Replaces Certificate CU72090726.	7
Appendix: 1, 1-5	

Licensed Test mark: 	Signature  Dipl.-Ing. M. Glagla QA Certification Officer	Date of Issue (day/mo/yr) 10/05/2010
---	--	---

TUV Rheinland of North America, Inc., 12 Commerce Road, Newtown, CT 06470, Tel (203) 428-0888 Fax (203) 428-4009







<h1>Certificate</h1>		
Certificate no. CU 72101078 02		
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	
<hr/> Test report no.: USA-UH 30471584 004 Client Reference: Rolf Tweer Tested to: UL 987:1994 R9.00 C22.2 No. 105-1953 (R2004)		
<hr/> Certified Product: Dimension Saw License Fee - Units		
Additional Manufacturing Plant: see above (K751437)		
Licensed Test mark: 	Signature  <hr style="width: 100%;"/> Dipl.-Ing. M. Glagla QA Certification Officer	Date of Issue (day/mo/yr) 10/05/2010
TÜV Rheinland of North America, Inc., 12 Commerce Road, Newtown, CT 06470, Tel (203) 426-0886 Fax (203) 426-4009		

2.3 Marks of conformity

	<p>CE symbol</p>
	<p>GS symbol</p>
	<p>“Wood dust approved” symbol</p>
	<p>C US mark</p>

3 Product description

3.1 Marking, pictographs

		
Danger warning	Hand injury warning	Laser beam warning
		
Crushing risk warning	Voltage warning	Note: Wear ear protection

3.2 Intended use

The sliding table saw and the workpiece guide equipment supplied with it are intended to be used for cutting wood and similar materials such as:

- 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 in respect of dust, chips, and thermal degradation products.

The sliding table saw and the workpiece guide equipment supplied with it are **not intended** to be used for cutting materials such as:

- 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 crosscutting) 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 permissible 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. 450 mm diameter **without** scoring blade

250 - max. 400 mm diameter **with** scoring blade

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.

Clamping device:

A suitable clamping device should be used for small workpieces, in particular.

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 cross-end of the machine on the right of the sliding table when working with the rip fence (make sure you 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)!

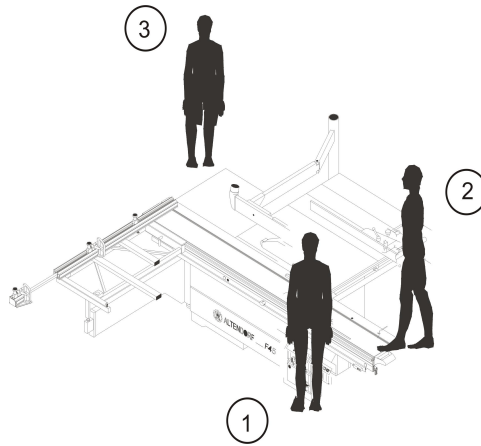


Fig. 3-1 Machine operator positions

**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 resultant injury or damage.

Foreseeable misuse:

- Working with the safety hood swung up
- Working with the safety hood swung away
- 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
- Touching or manual infeed with automatically moving stops
- Saws without a riving knife
- Incorrect setting of the straight edge on the rip fence
- Use of coolant lubricants containing water
- Insufficient removal of wood and plastic residue prior to machining aluminium

**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.
- Crushing between the motor-driven tilt movement of the saw blade and the rip fence or workpieces lying in the tilting area.
- 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.

3.3 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]	Net weight, accessories [kg]	Gross weight, accessories [kg]	Dimensions, machine box [mm]	Dimensions, sliding table box [mm]
2250	855-1282	970-1495	114	175	131-142	203-230	2060x960x500	2580x660x330
2600	855-1282	970-1495	128	196	131-142	203-230	2060x960x500	2930x660x330
3000	855-1282	970-1495	158	234	131-142	203-230	2060x960x500	3330x660x330
3200	855-1282	970-1495	170	250	131-142	203-230	2060x960x500	3530x660x330
3400	855-1282	970-1495	205	289	131-142	203-230	2060x960x500	3730x660x330
3800	855-1282	970-1495	212	304	131-142	203-230	2060x960x500	4130x660x330
4300*	855-1282	970-1495	249	350	131-142	203-230	2060x960x500	4630x660x330
5000*	855-1282	970-1495	269	385	131-142	203-230	2060x960x500	5330x660x330

The weights depend on the machine equipment!

* F 45® only

3.4 Auxiliary power/power requirements

The permissible tolerance for the specified mains voltage is + 5% and - 10%. Greater deviations will impair functionality.

Only connect the machine to a three-phase AC mains with phases L1, L2 and L3, otherwise the brake module or the frequency converter may be destroyed. Operating the machine together with phase converters, frequency converters or transformer-capacitor combinations will destroy the brake module and power supply unit!

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.



Note!

Devices for differential protection (to be provided by the customer!)

In 230V/400V systems, devices are generally used that detect leakage currents < 300 mA. For switch-off in the event of a fault, RCDs (residual current devices) with a rated differential current < 300 mA are normally used, and for indication, fault current indicators (relays) or RCMs (residual current monitors) are used.

Mains voltage independent devices for differential protection that also detect differential currents (leakage currents) with DC components are to be used.

If leakage current indicators or RCMs are used, ensure that additional switch-off devices, e.g. circuit breakers, are provided.

(Extract from VDS Directive 2033)

If there are special safety requirements for persons setting up the equipment, then frequency converters complying with EN 50178 must be replaced by RCMA's with an isolator (preferably) or by type-B RCDs (universal-current-sensitive residual-current circuit breakers).

The following devices can be used:

Manufacturer: Doepke switching devices; these switching devices can also be purchased via Altendorf.

- DFS4 040-4/0,30-B NK, release current 300 mA
- DFS4 040-4/0,03-B NK, for personal protection

Auxiliary power/power requirements

Motor [kW]	Voltage [V]	Frequency [Hz]	Nominal current Without/with scoring blade [A]	Fusing [A]
4	380 - 420	50	7,5 / 9,5	25
5,5	380 - 420	50	11,5 / 13,5	25
7,5	380 - 420	50	15,5 / 17,5	25
5,5	575	60	7,5 / 8,5	20
5,5	220	60	19/22,5	30
5,5	440	60	9,8/11,5	20

3.5 Emissions

3.5.1 Noise - characteristic values

Sound power level [dB (A)]	Emission sound pressure level at the workplace [dB (A)]	Tool
Idling____L _{WA} = 98,1 Running__L _{WA} = 102,5	Idling____L _{PA} =88,5 Running__L _{PA} = 85,2	Circ. saw blade 350x3,5/54 WZ n = 4160 rpm

The noise emission values determined according to DIN EN ISO 3746 for the sound power level or DIN EN ISO 11202 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 stated values are emission levels and therefore not necessarily levels for safe working. Although there is a correlation between emission and imission levels, it cannot be reliably deduced from this whether or not additional precautionary measures are needed to protect operators.

Factors that influence the imission level at the workplace cover the duration of exposure, room characteristics, other sources of noise such as the type and number of neighbouring machines, and other working processes involving noise emission.

3.5.2 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).

3.5.3 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.

3.5.4 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.

3.5.5 Maintenance / cleaning



CAUTION!

Danger of injury!

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

Regular cleaning prolongs the life of the machine and is also a prerequisite for perfect cutting results. The machine should therefore be cleaned at least once a week, depending on the degree of soiling. This applies in particular to:

- the machine table

- the sliding table
- the sliding table guides
- the pivoting segments
- the round rod of the rip fence
- the machine interior
- the machine surroundings

Remove any chips and dust adhering to the machine with a vacuum cleaner. To remove resin residue, it is advisable to use a cleaning agent which dissolves resin. Parts treated in this way must subsequently be treated with an oil-impregnated cloth to prevent rusting.

Regularly clean the sliding table guides. If soiled with resin, clean the guides with petroleum and, if necessary, with rough sponges. Do not use steel wool or grinding paper as the guideways will be irreparably damaged.



Note!

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

Lubrication

- The bearings of the main saw shaft and scoring saw shaft are encapsulated and lubricated for life, making relubrication unnecessary.
- Regularly clean and lubricate the pivoting segments. The intervals (2 weeks) depend on the duration of use.
- Lubricate the rip fence and height adjustment unit once a year.

Lubricating the height adjustment unit

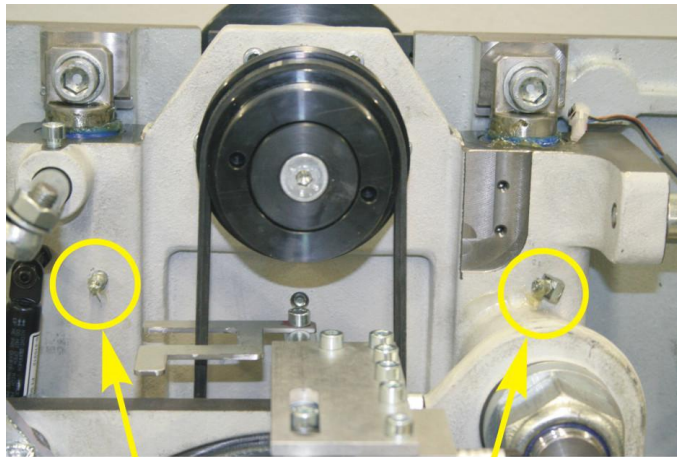


Fig. 3-2 Lubricating nipple, height adjustment

To relubricate, open the machine door, move to 0° and a cutting height of 0 mm. This allows optimum access to the lubricating nipples.

Lubrication, electromotive rip fence (model X)

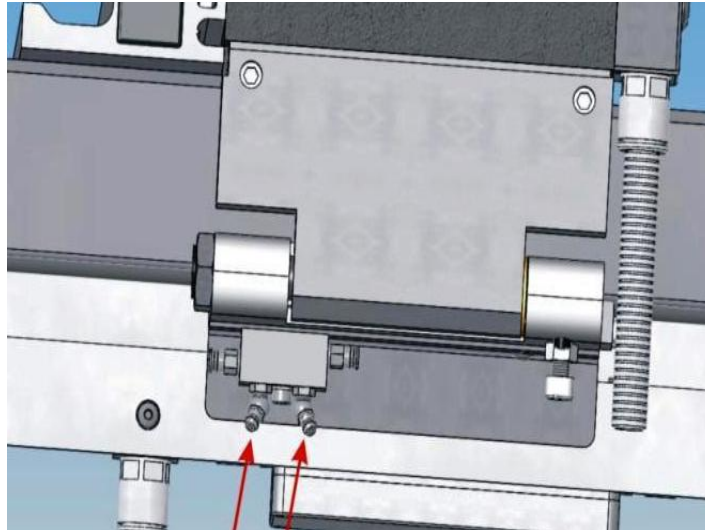


Fig. 3-3 Lubricating point, linear guide

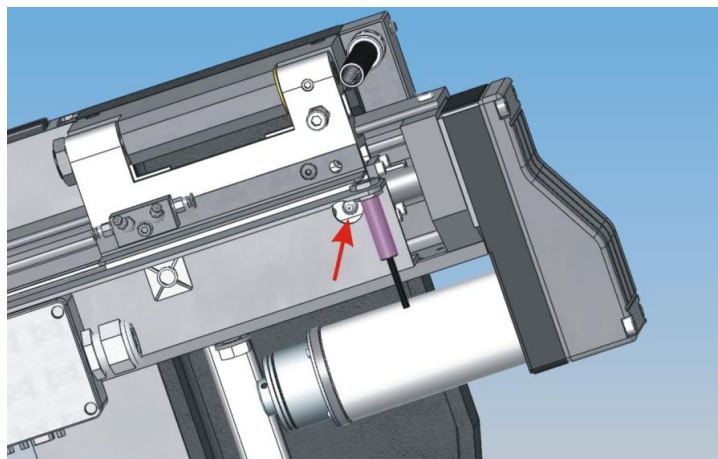


Fig. 3-4 Lubricating point, spindle drive

To lubricate the spindle, the rip fence must be moved to its max. cutting position, so that the lubricating nipples can be reached from the bottom with the supplied grease gun.

Quantity of lubricant

Precisely adhere to the lubricant quantity of 7 grams for each lubrication cycle. When lubricating with the filled grease gun included in the scope of delivery, 5 strokes are necessary to inject the required quantity.

Excessive lubrication due to short intervals and/or by too much lubricant will lead to failures!

**CAUTION!**

Do not use lubricants containing graphite or MoS2 additives!

3.6 Safety information

3.6.1 Operational safety

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!

- Never operate the machine without the protective devices intended for the specific work cycle (also refer to “Working safely with the sliding table saw – working examples”), and do not make any changes that could impair safety.
- Before all work, ensure that the protective and working devices are securely fitted and are not damaged.
- Before changing a tool, rectifying any faults and carrying out repairs, make sure that the machine cannot be turned on accidentally, for example by padlocking the main switch.
- Only use correctly sharpened tools designed to conform with the requirements of the European standard EN 847-1:2005+A1:2007.
- When grooving with milling tools, only use milling tools for manual feeding with a groove width less than or equal to 20 mm marked with MAN according to the European standard EN 847-1:2005+A1:2007.
- Only fit saw blades with the dimensions described in the technical data. The diameter of the mounting hole must always measure 30 mm. Loose intermediate rings may not be used.
- Select the rotational speed so that the maximum permissible rotational speed specified for the tool is not exceeded when using tungsten carbide tipped saw blades or grooving cutters.
- HS saw blades and cracked or deformed saw blades may not be used.
- Always wear tight-fitting work clothes and do not wear rings, bracelets or watches.
- Ensure that the workplace is uncluttered, slip-proof and well lit.
- Do not cut workpieces that are too large or too small for the machine to handle.

- When working at the machine, always stand to the side of the saw blade outside a possible kick-back area.
- 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.
- Always use the top protection hood!
- Adjust the height of the top protection hood to the thickness of the workpiece to be cut. When operating with a tilted saw blade, exchange the narrow hood for a wide hood.
- Always guide the workpiece safely and use the appropriate stops/fences.
- Use a push stick when cutting narrow workpieces (< 120 mm) at the rip fence.
- Crosscuts and longitudinal cuts in round wood are not permitted with the standard feeding aids or fences/stops.
- Always use the riving knife except for insert cuts. The riving knife must not be thicker than the cutting line width or thinner than the main blade. Adjust the riving knife so that it is at a distance of least 3 mm and at most 8 mm from the gear rim. The guide slot must be 13 + 0.5 mm wide. With respect to their thickness, the supplied riving knives match the cutting line widths of commercially available tungsten carbide tipped saw blades. If other saw blades, e.g. made of chrome vanadium (CV), are used, select a riving knife thickness that lies between the cutting line width and the main blade thickness. Such riving knives can be obtained from machinery suppliers or directly from Altendorf®.
- Use an anti-kick device for insert cuts, e.g. the front of the clamping shoe. Fix this in the sliding table groove, ensuring that the sliding table is locked with its interlock to prevent movement. Following insert cutting, immediately refit the riving knife and the top protection hood immediately!
- Only do angle cuts when the cross-slide is fixed to the sliding table. Make sure that small cut-off workpieces cannot be taken up by the gear rim and kick out, for example by using a deflection wedge.
- For trimming, use the clamping shoe fixed to the sliding table to hold down the workpiece.
- When using a feeding unit, use at least the riving knife as an anti-kick device.
- Replace worn-out table strips immediately.
- Wobble units or wobble cutting devices may not be used.
- The sound pressure level at the workplace generally exceeds 85 dB(A). For this reason, wear hearing protection when working.
- Only qualified electricians are permitted to work on the electrical equipment of the machine.
- 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.

- Prior to cutting aluminium, thoroughly clean the machine and remove all remaining chips and dust to prevent ignition of remaining chips/dust.
- The sawdust generated during cutting not only impairs visibility but is also partially hazardous to health. Therefore, the machine must be connected to a chip extraction system with both extraction sockets. The minimum air speed at the lower extraction socket must be at least 20 m/s. When the machine is switched on, the extraction system must be activated at the same time.

**WARNING!**

Always use a deflector wedge fastened to the table top when small waste pieces are produced during cutting that could be kicked out by the saw blade.



Fig. 3-5 Deflector wedge

3.6.2 Safety devices

Altendorf[®] sliding table saws have been developed in compliance with European standard DIN EN ISO19085-5: 2018-02 "Woodworking machines - Safety - Part 5: Dimension saws" (ISO 19085-5:2017).

During the design stages great importance was attached to creating optimum working conditions, ranging from numerous mechanical and electrical safety devices to noise insulation and reduction of dust emission.

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:

- Rip fence with straight edge adjustable in cutting direction: Can be pulled back to prevent parts of crosscut workpieces from jamming between the fence and the rising gear rim, or can be switched over to a low guide surface for cutting narrow and flat workpieces, allowing adequate space for the guide hand together with the possibility of lowering the top safety hood onto the workpiece here, too.
- Trimming hold-down to clamp and hold down untrimmed solid wood to secure against slippage in the course of trimming.
- Electrical interlocking of the door in the machine frame to change over the belt to change the rotational speed (only with three-speed model). It is not possible to switch on the machine when the door is open, and if the door is opened while the machine is running, the drives will switch off.
- Sliding table arresting device to prevent workpiece kick-back for insert cuts together with the cross-stop.
- Automatic brake which, after switching off, brings the main saw blade to a standstill in less than 10 seconds, regardless of the saw blade diameter and rotational speed.
- Ergonomic arrangement of the operating elements at readily accessible positions.

3.6.3 Top safety hood/riving knife

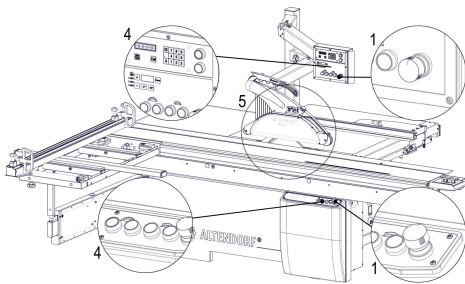
For a max. tool diameter of 450 mm:

- Top safety hood fitted separately from the riving knife for max. saw blade diameter of 450 mm, available in a narrow and a wide format made of polycarbonate to optimally cover the section of the blade not required for sawing above the machine table with a safeguard against lifting beyond the maximum cutting height of +5 mm. Rollers integrated in the safety hoods at the leading and trailing ends make it easier both for feeding workpieces and for pulling back of workpieces if workpieces have a slightly different thickness.
- 2 riving knives for saw blades between 300 and 450 mm diameter to avoid workpiece kick-back as a result of jamming in the cutting line.

3.6.4 Checking protective devices

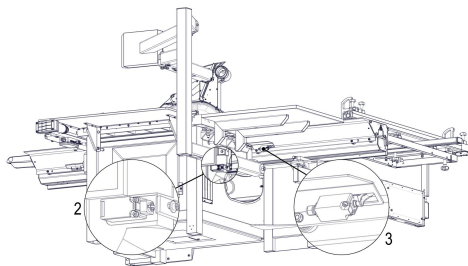
Test all protective devices with the main switch turned on and check for completeness and noticeable damage.

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 (5) for damage
- Replace protective hood (5) 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.

3.6.5 Handling batteries / accumulators

Information on battery regulations

**Note!**

Dispose of used batteries according to the applicable laws and regulations at a communal collection point or return them to your retailer free of charge.

Danger caused by lithium batteries

If lithium batteries are used or stored outside of their specification, they may be dangerous. Dangers result primarily from incorrect handling and improper use. Examples of improper use:

- mechanical damage (internal short-circuit)
- thermal stress (internal short-circuit)
- overloading (strong temperature increase due to exothermic processes).

In Germany:

According to § 5 ArbSchG (German Occupational Safety and Health Law), § 3 BetrSichV (German Industrial Safety Law), the owner/user must create a risk assessment to assess the dangers caused by technical equipment and devices.

Measures for damage prevention

The risk potential of lithium batteries is, in addition to the product design, primarily determined by the module or system capacity.

The types used by Altendorf[®] are low-capacity lithium batteries (batteries > 1 kg). The information for damage prevention applies to both new and used batteries.

General safety regulations

Always observe the following safety regulations:

- Adhere to all specifications by manufacturers and on safety data sheets
- Prevent external short-circuits
- Prevent internal short-circuits (protect from mechanical damage)
- Immediately and properly dispose of damaged products (even in case of slight damage)
- Do not expose directly and permanently to high temperatures or sources of heat (e.g. direct sunlight)
- Train employees in the proper handling of lithium batteries (as with hazardous materials)

Source: VdS 3103 : 2012-06 (01)

Lithium batteries - Excerpt of the GDV leaflet for damage prevention

4 Definitions

4.1 Description of machine

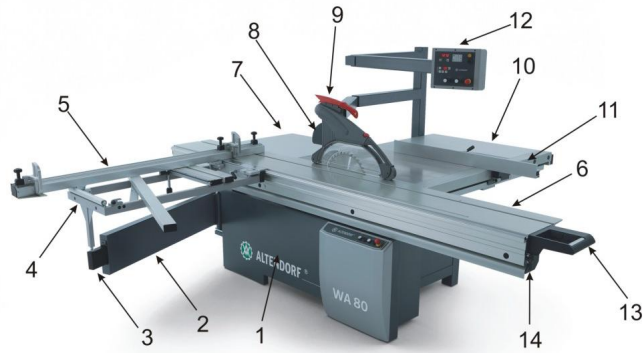


Fig. 4-1 WA 80 X

1	Machine frame	8	Protection hood
2	Swinging arm	9	Push stick
3	Telescopic tube	10	Main table width extension
4	Cross-slide	11	Motor driven rip fence
5	Crosscut-mitre fence	12	Operating unit at eye level
6	Sliding table	13	Return handle
7	Main table length extension	14	Sliding table interlock

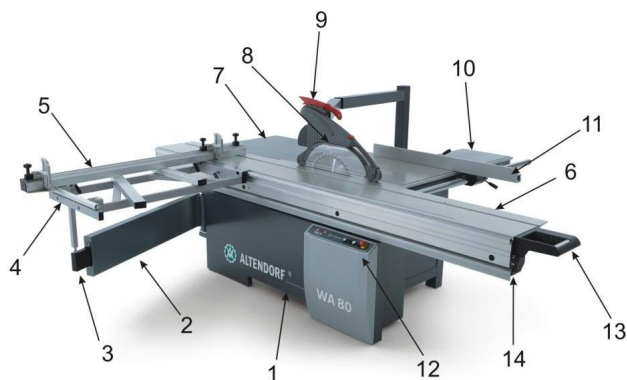


Fig. 4-2 WA 80 TE

1	Machine frame	8	Protection hood
2	Swinging arm	9	Push stick
3	Telescopic tube	10	Main table width extension
4	Cross-slide	11	Rip fence with round rod
5	Crosscut fence	12	Operating unit on the machine stand

6	Sliding table	13	Return handle
7	Main table length extension	14	Sliding table interlock

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.

Spraying unit (minimum quantity lubrication)

The reduction of the lubricant quantity compared with the circulation quantity of standard coolant lubricant systems is the main feature of minimum quantity lubrication. Unlike conventional overflow lubrication, a minimum quantity lubrication system only requires a few millilitres (ml) per hour of lubricant for the chipping process.

5 Installation

5.1 Transport and storage

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.

5.2 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.

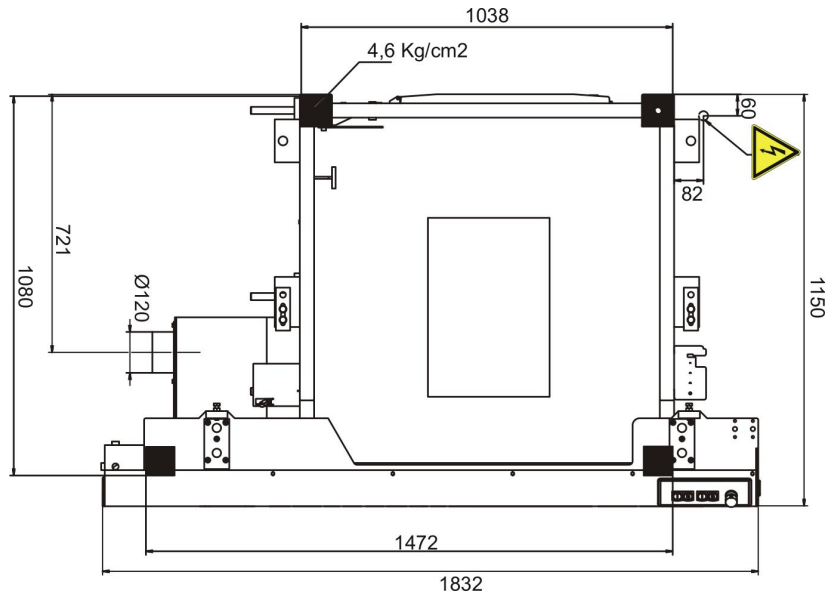


Fig. 5-1 Foundation plan



DANGER!

Danger of crushing!

- For operation with the max. workpiece weight, secure the machine against tilting!
- Ensure that there is sufficient safety clearance from building parts and other machines!

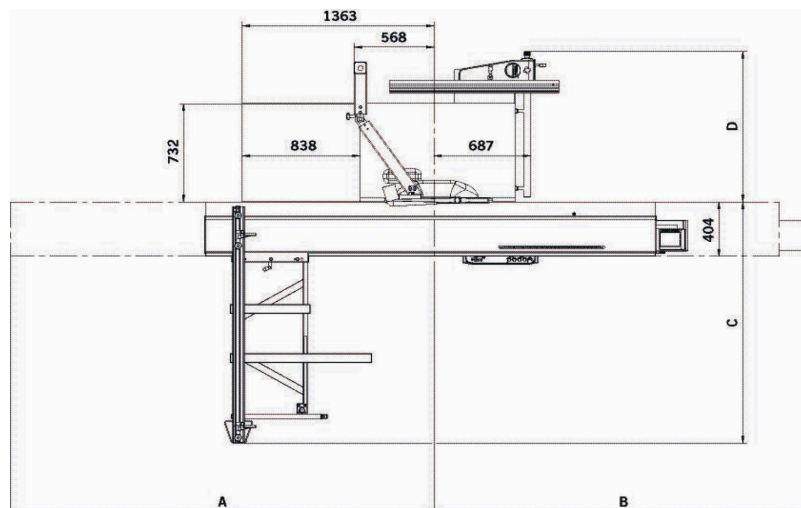


Fig. 5-2 Space requirement

Key

Dimension A: Sliding table length + 290 mm

Dimension B: Sliding table length + 360 mm

Dimension C:

Crosscut fence up to 2500 mm: 1445 mm - max. 2630 mm

Crosscut fence up to 3200 mm: 1800 mm - max. 3350 mm

Crosscut-mitre fence up to 3500 mm: 1970 mm - max. 3680 mm (**WA 80 X**)

Dimension D: Cutting width + 310 mm with man. RF adjustment

Cutting width + 480 mm with motorised adjustment

Cutting width + 410 mm with DIGIT_X

5.3 Installation

5.3.1 Telescopic tube for swinging arm



Fig. 5-3 Installing the telescopic tube

- [1] Undo the cheese head screw.
- [2] Push in the telescopic tube from the front through the housing for the swinging arm.
- [3] Insert and tighten the cheese head screw.

5.3.2 Main table length extension

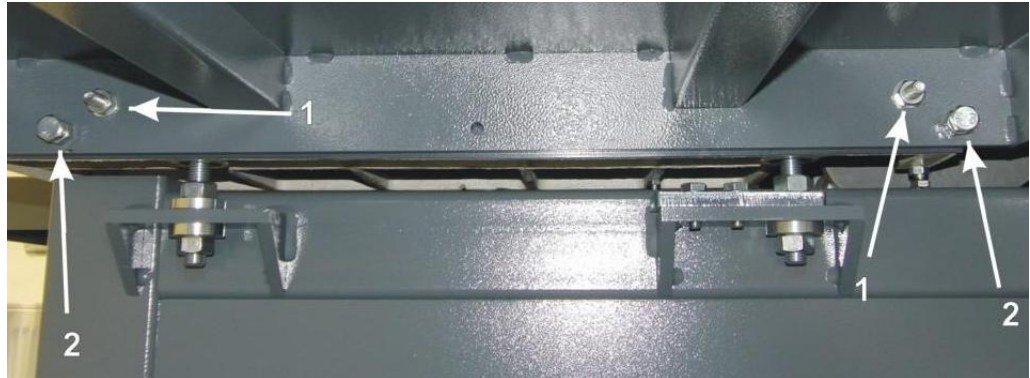


Fig. 5-4 Installation main table length extension (Type TE/ NT/ T)

- [1] Guide the pins of the table length extension into the holes on the face of the table plate.
- [2] Secure loosely to the table plate with two M10 nuts and shake proof washers (1).
- [3] If necessary, correct the alignment and flushness by readjusting the support screws (2).
- [4] Tighten the M10 nuts.

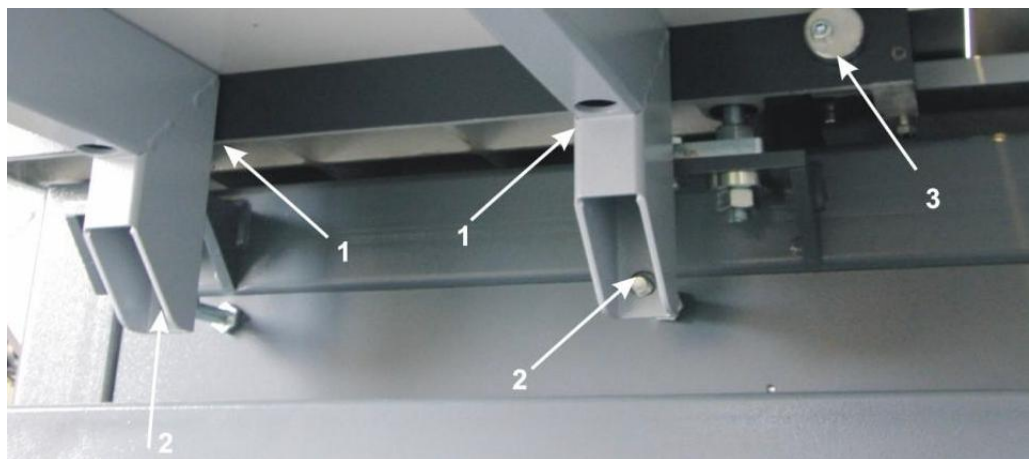


Fig. 5-5 Installation main table length extension (Type X)

- [1] Guide the pins of the table length extension into the holes on the face of the table plate.
- [2] Secure loosely to the table plate with two M10 nuts and shake proof washers (1).
- [3] If necessary, correct the alignment and flushness by readjusting the support screws (2).
- [4] If necessary, correct the height by means of eccentric screw (3).
- [5] Tighten the M10 nuts.

5.3.3 Rip fence

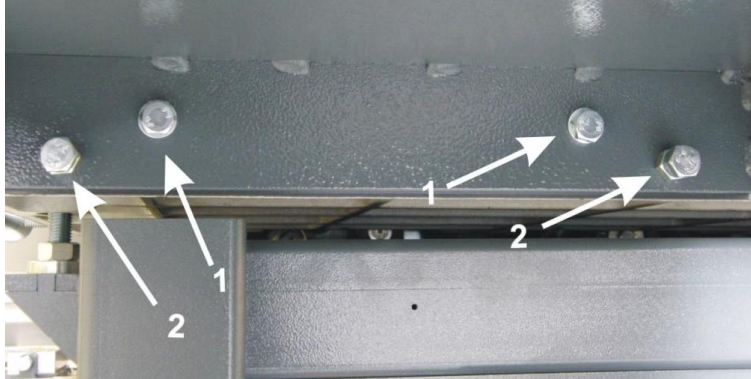


Fig. 5-6 Installation main table width extension (Type TE / NT/ T)

- [1] Guide the pins of the table length extension into the holes on the face of the table plate.
- [2] Secure loosely to the table plate with two M10 nuts and shake proof washers(1).
- [3] If necessary, correct the alignment and flushness by readjusting the support screws (2).
- [4] Tighten the M10 nuts.

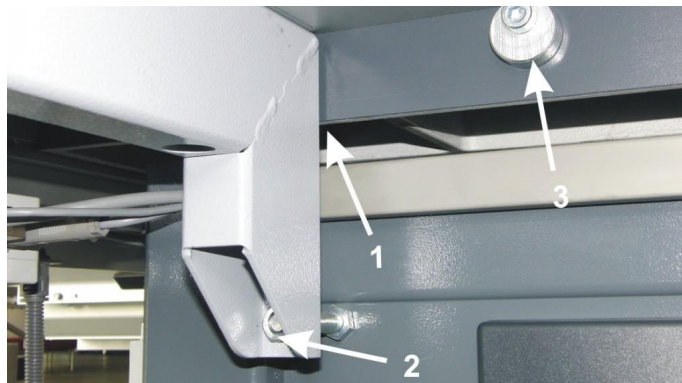


Fig. 5-7 Installation main table width extension (Type X)

- [1] Guide the pins of the table length extension into the holes on the face of the table plate .
- [2] Secure loosely to the table plate with two M10 nuts and shake proof washers (1).
- [3] If necessary, correct the alignment and flushness by readjusting the support screws (2).
- [4] If necessary, correct the height by means of eccentric screw (3).
- [5] Tighten the M10 nuts.

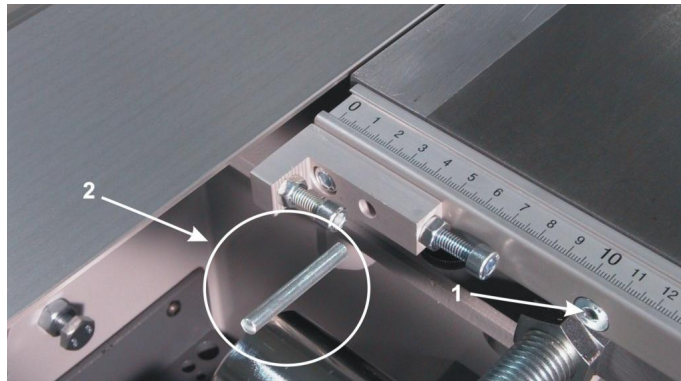


Fig. 5-8 Installing the measuring bar

- [1] Fit the measuring bar easily with M6x30 countersunk screws (1)
- [2] Knock a 6x45 clamping pin (2) through
- [3] Tighten the countersunk screws(1)

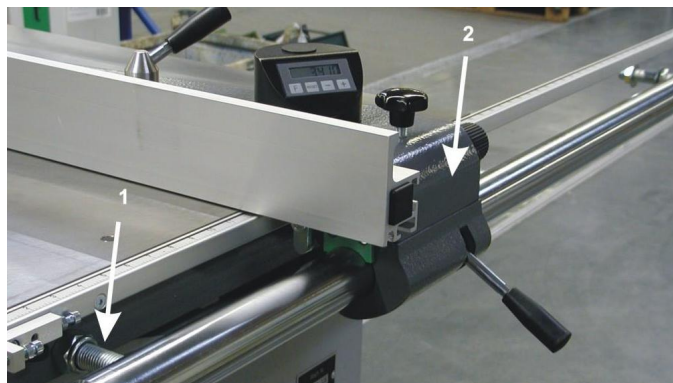


Fig. 5-9 Installing the rip fence

- [1] Put the fence bar bolts (1) through the holes in the main table.
- [2] Attach the M20 nuts from the rear of the main table and tighten them.
- [3] Carefully push the rip fence (2) from the right to left side on to the fence bar .

Motorised rip fence (Type X)

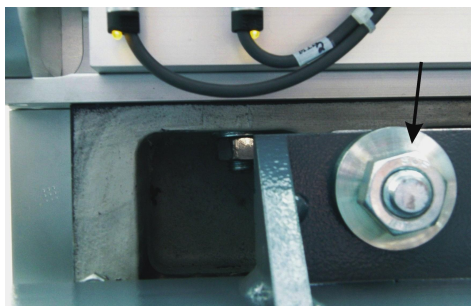


Fig. 5-10 Installing the motorised rip fence

- [1] Fit the axis in front of the machine table with 3 M10 bolts.
- [2] Fasten on the other side with washers and M10 nuts. Make sure the axis is flush with the machine table.



Fig. 5-11 Installing the motorised rip fence

- [1] The axis is fixed to the table extension with an additional M10 bolt.

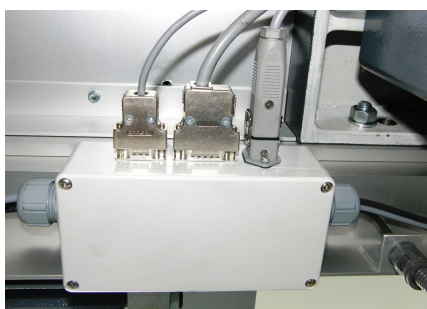


Fig. 5-12 Installing the motorised rip fence

- [1] Plug in the three electrical connections.

5.3.4 Cross-slide and crosscut fence

Installing the cross-slide

The cross-slide must be attached to every point of the outer-lying round bar of the sliding table, and must be clamped.

Assembly steps:

- Place the supporting pipe of the cross-slide [1] onto the bolt [8] of the telescopic tube
- Tilt the cross-slide to the sliding table, suspend and clamp using the eccentric lever [2]; for the operation of the eccentric lever, refer to the following pages.



Fig. 5-13 Installing the cross-slide

- [1] Support pipe
- [2] Eccentric clamping lever
- [3] Workpiece support
- [4] Crosscut fence
- [5] Crosscut fence clamping
- [6] Extendable crosscut fence extension
- [7] Support bolt, telescopic tube

Cross-slide clamping WA/WGA crosscut fence

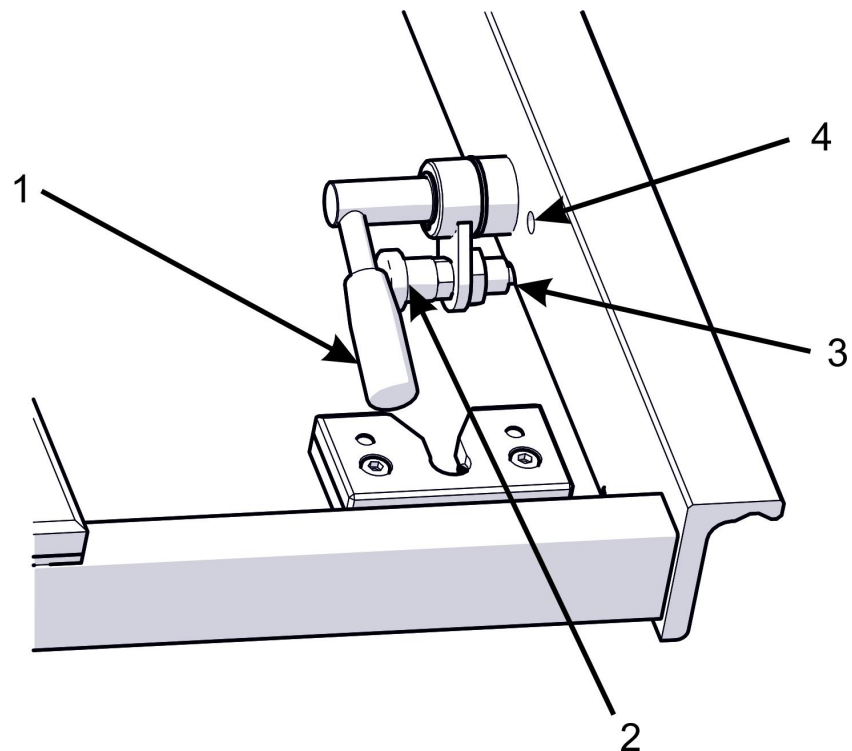


Fig. 5-14 Clamping lever

- [1] Clamping lever
- [2] Safety locking mechanism
- [3] Stop, safety locking mechanism for displacing the cross-slide
- [4] Drill hole, safety locking mechanism for removing the cross-slide

To push the cross-slide to other positions on the sliding table, undo the clamping lever [1] up to the stop of the safety locking mechanism. It is now possible to displace the cross-slide without a risk of the cross-slide falling down.

To remove the cross-slide, pull out the safety locking mechanism and push up the clamping lever. The safety mechanism engages in the hole [4]. The cross-slide can now be removed completely.

When assembling the cross-slide, first hook it in, pull out the safety locking mechanism, push the clamping lever all the way to the fixed stop. Release the safety locking mechanism.

Crosscut fence, 90° only

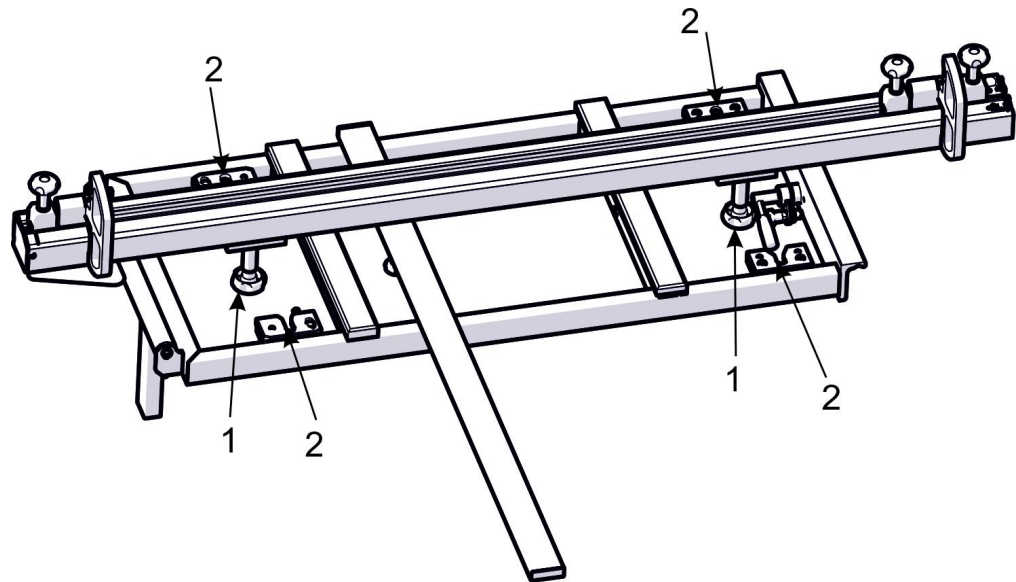


Fig. 5-15 Installing the 90° crosscut fence

1. Place the crosscut fence on the cross-slide such that the clamping bolts [1] can be inserted in the grooves [2]
2. Tighten the clamping bolts [1], positioning is carried out by means of the tapered surfaces

Changing the 90° crosscut fence

1. Undo the clamping bolts [1]
2. Move the crosscut fence to a new position; ensure that the clamping bolts are inserted into the grooves
3. Tighten the clamping bolts [1], positioning is carried out by means of the tapered surfaces

Crosscut-mitre fence

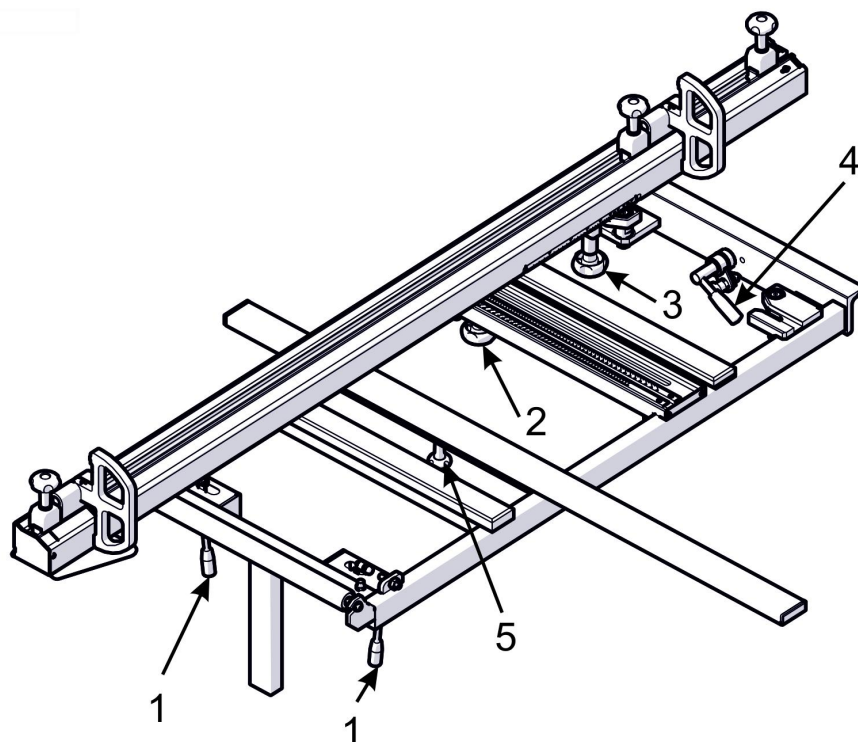


Fig. 5-16 Crosscut-mitre fence operating elements

- [1] Clamping lever 90° position
- [2] Clamping degree scale
- [3] Clamping pivot point
- [4] Clamping lever, cross-slide / sliding table
- [5] Clamping, C profile

Installing the standard crosscut-mitre fence / with DIGIT L + LD:

- Place the WGA on the rear fence surface
- Push the ball bearing over the groove in the sliding table
- Unscrew the handle of the degree scale clamping
- Carefully turn the crosscut-mitre fence by 90° so that the ball bearing can be inserted in the groove of the sliding table and the threaded bolt of the clamping degree scale in the groove of the profile
- Fasten the handle of the clamping degree scale

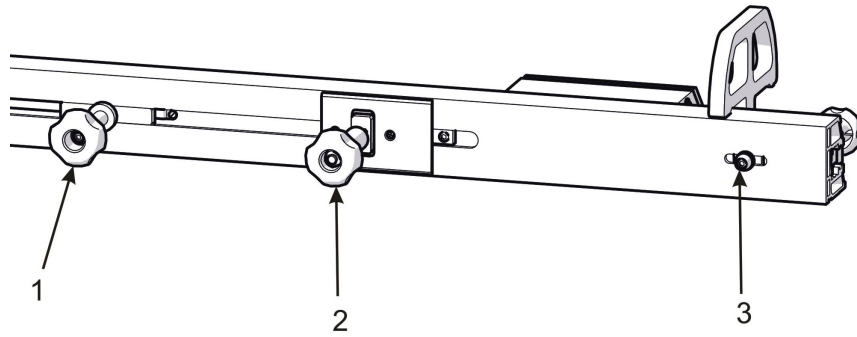


Fig. 5-17 Installing the WGA

- [1] Clamping degree scale
- [2] Clamping pivot point
- [3] Ball bearing

90° clamping

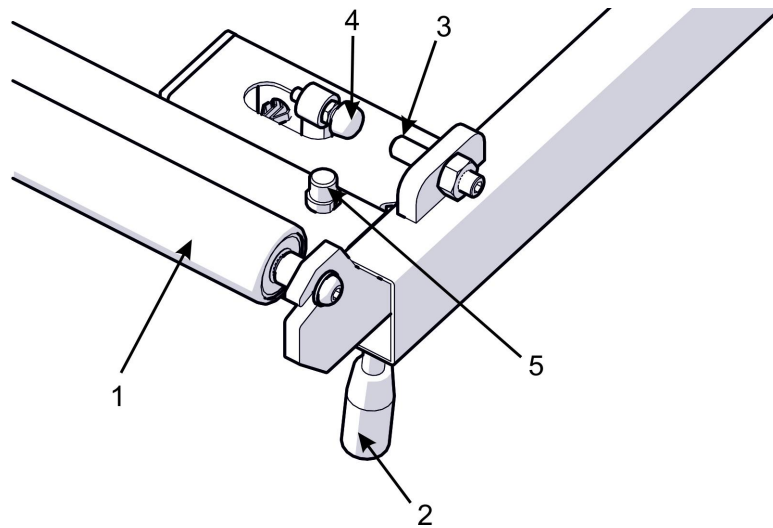


Fig. 5-18 90° clamping

- [1] Support roller
- [2] Clamping lever
- [3] 90° stop
- [4] Pressure piece on the clamping lever
- [5] Guide bolt(s)

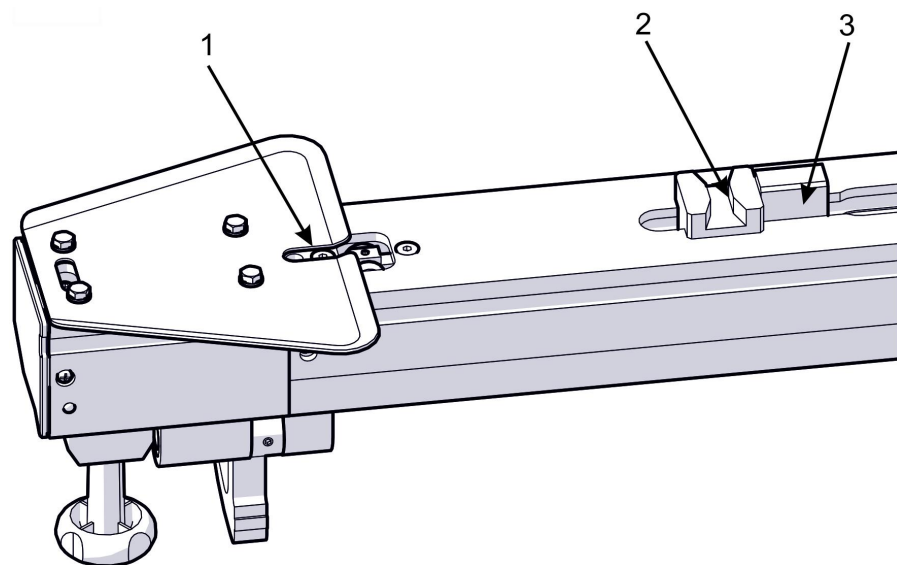


Fig. 5-19 Crosscut-mitre fence left-hand side

- [1] Clamping screw, telescopic extension
- [2] Guide groove for 90° position
- [3] Clamping piece, 90° position

Crosscut-mitre fence WGA_LD

Crosscut-mitre fence with digital angle and length measurement

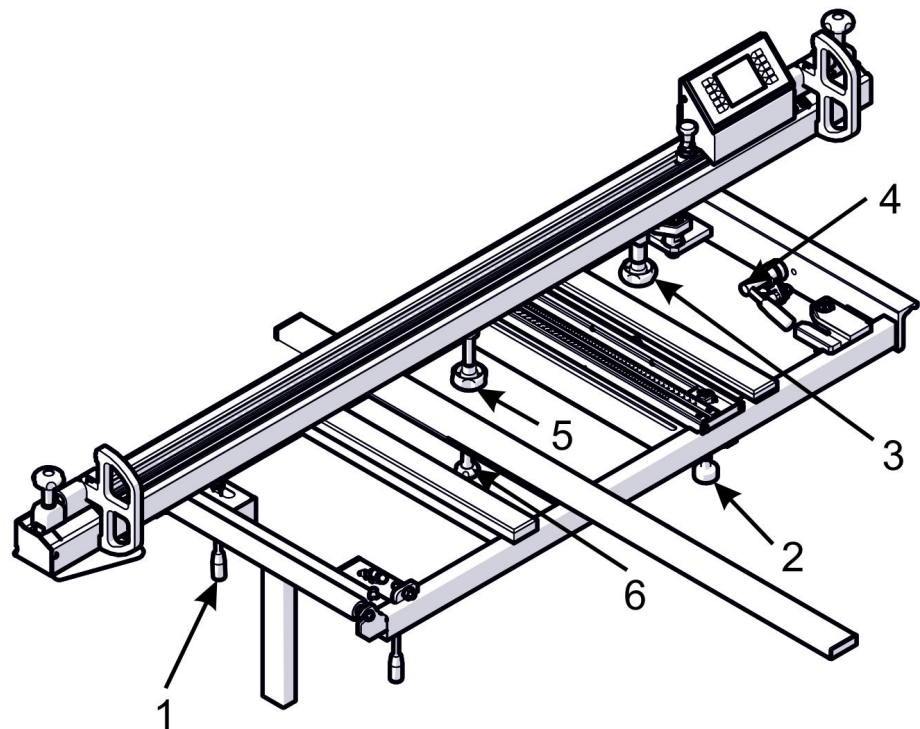


Fig. 5-20 WGA_LD

- [1] Clamping lever 90° position
- [2] Indexing bolt, angle measurement
- [3] Clamping pivot point
- [4] Clamping lever
- [5] Clamping, angle measurement
- [6] Clamping, C profile

Assembly of the crosscut fence

- Place the WGA_LD on the rear fence surface
- Push the bolt for the degree setting clamp over the groove in the degree scale, and push the guide carriage into the middle.
- Position the T-nut for pivot clamping so that there is enough clearance to the pivot
- Push the ball bearing over the groove in the sliding table
- Carefully turn the crosscut-mitre fence 90° and raise it so that the bolt enters the degree scale groove and the ball bearing enters the sliding table groove

- Lower the crosscut-mitre fence so that the bolt enters the guide carriage hole
- Turn in clamping screw [5] loosely
- Push the T-nut with clamping screw [3] into the pivot
- Swivel the WGA to its 90° position and clamp with clamping lever [1].
- Tighten the clamping screws

Operating elements

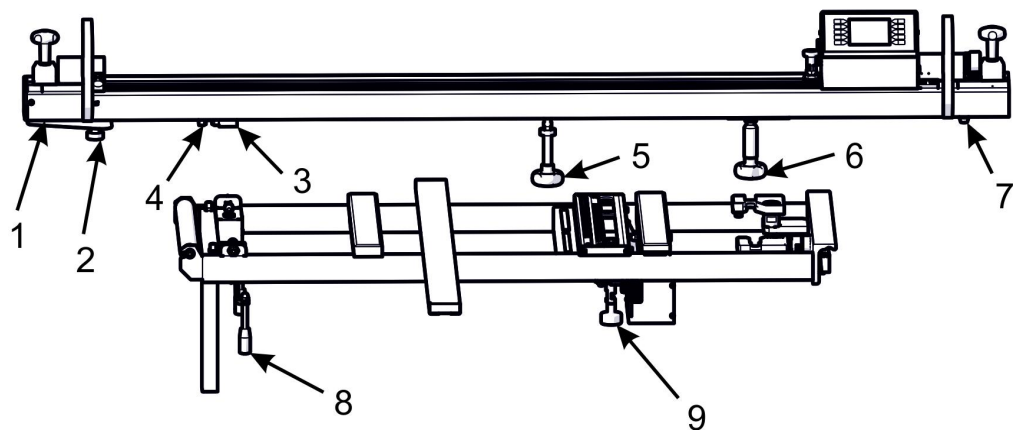


Fig. 5-21 WGA_LD

- [1] Telescopic extension
- [2] Clamping, telescopic extension
- [3] 90° stop
- [4] Guide groove, 90° position
- [5] Clamping degree scale
- [6] Clamping pivot point
- [7] Guide roller, sliding table
- [8] Clamping lever, 90° position
- [9] Indexing bolt, angle measurement

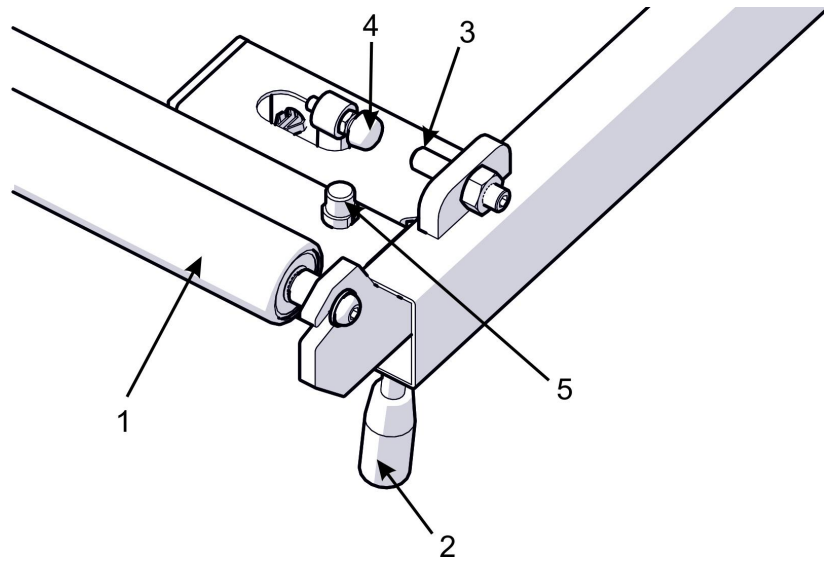


Fig. 5-22 90° clamping

- [1] Support roller
- [2] Clamping lever
- [3] 90° stop
- [4] Pressure piece on the clamping lever
- [5] Guide bolt(s)

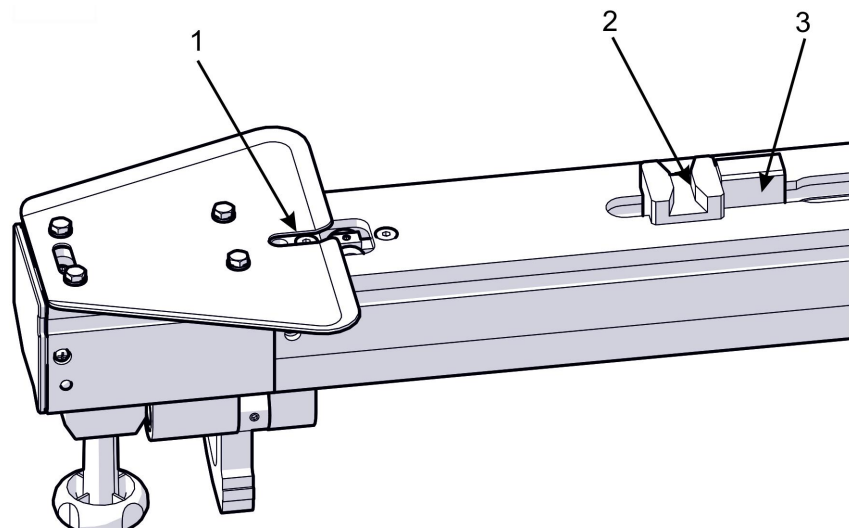


Fig. 5-23 WGA_LD, LH side

- [1] Clamping screw, telescopic extension
- [2] Guide groove, 90° position
- [3] Clamping piece, 90° position

5.3.5 Sliding table

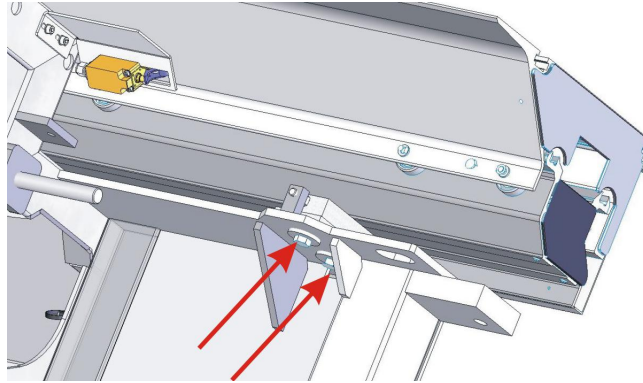


Fig. 5-24 Bottom carriage stop

- [1] Place the bottom carriage on the machine frame and push against the stop screws.
- [2] Screw on the bottom carriage.

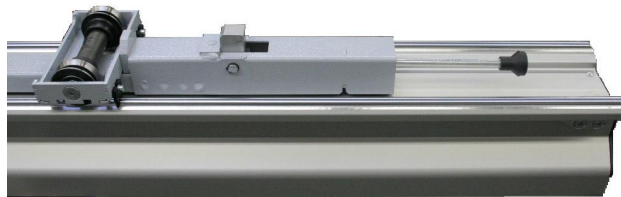


Fig. 5-25 Installing the middle carriage

- [1] Place the middle carriage on the bottom carriage so that the interlock is pointing to the right.
- [2] Push the middle carriage to the right so that the 1st double roller is still just resting on the round bars.



Fig. 5-26 Installing the top carriage

- [1] Carefully push on the top carriage making sure it is not skewed.
- [2] Carefully push the guide rails onto the double rollers.
- [3] Push the top carriage towards the left, all the way to the stop.



Fig. 5-27 Back stop

- [1] Fit the back stop.

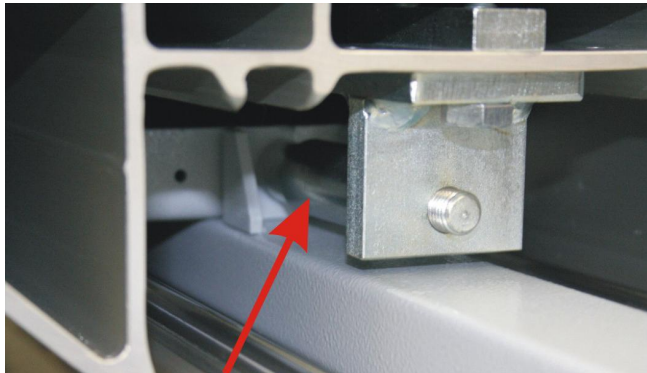


Fig. 5-28 Top carriage stop

- [1] Check whether the stop on the top carriage and the stop on the bottom carriage hit the end position at the same time.
- [2] Adjust if necessary.



Fig. 5-29 Central fixing

- [1] Tighten the central fixing screw.
- [2] Check the sub-rollers are correctly adjusted.

5.3.6 Electrical connection



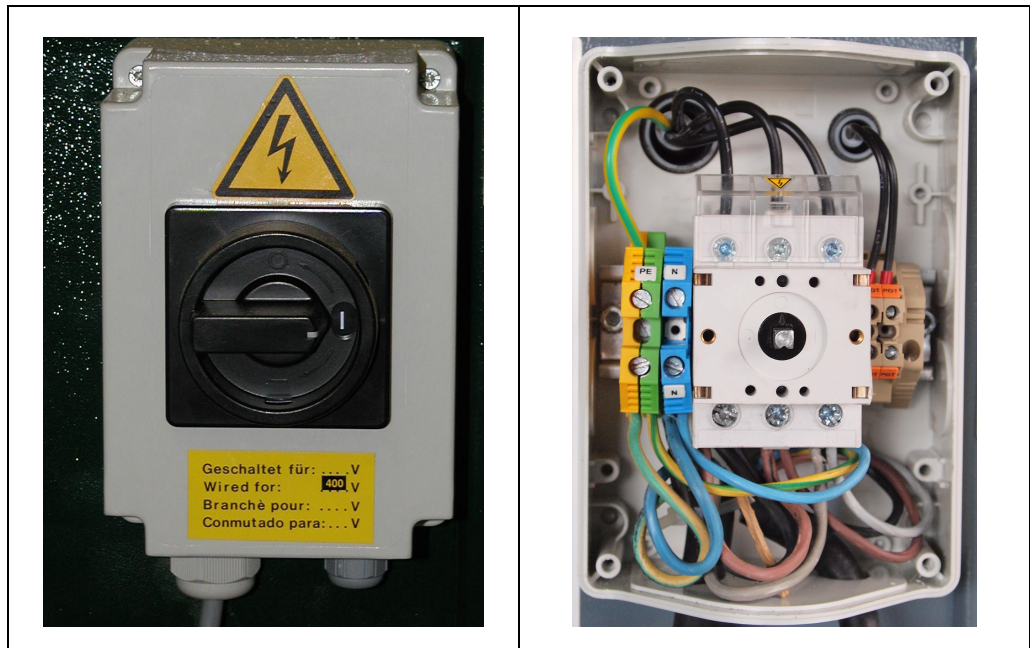
WARNING!

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.

- After connecting the supply line, check the rotational direction of the main saw motor by briefly starting up and, if necessary, correct it by interchanging the two outer conductors in the mains connection box.
- 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 electrical connection is made in the main switch housing located on the front end of the machine stand. The terminals for the supply line are marked L1, L2, L3, N and PE, the terminals for the potential-free contact are marked POT. The supply line cross-section and the fuses to be fitted by the user depend on the installed motor rating.

If the machine is connected via a flexible supply line, a rubber-sheathed cable (wire marking H07RN-F) must be used. Required plug-in device: Round connector in accordance with DIN 49463.

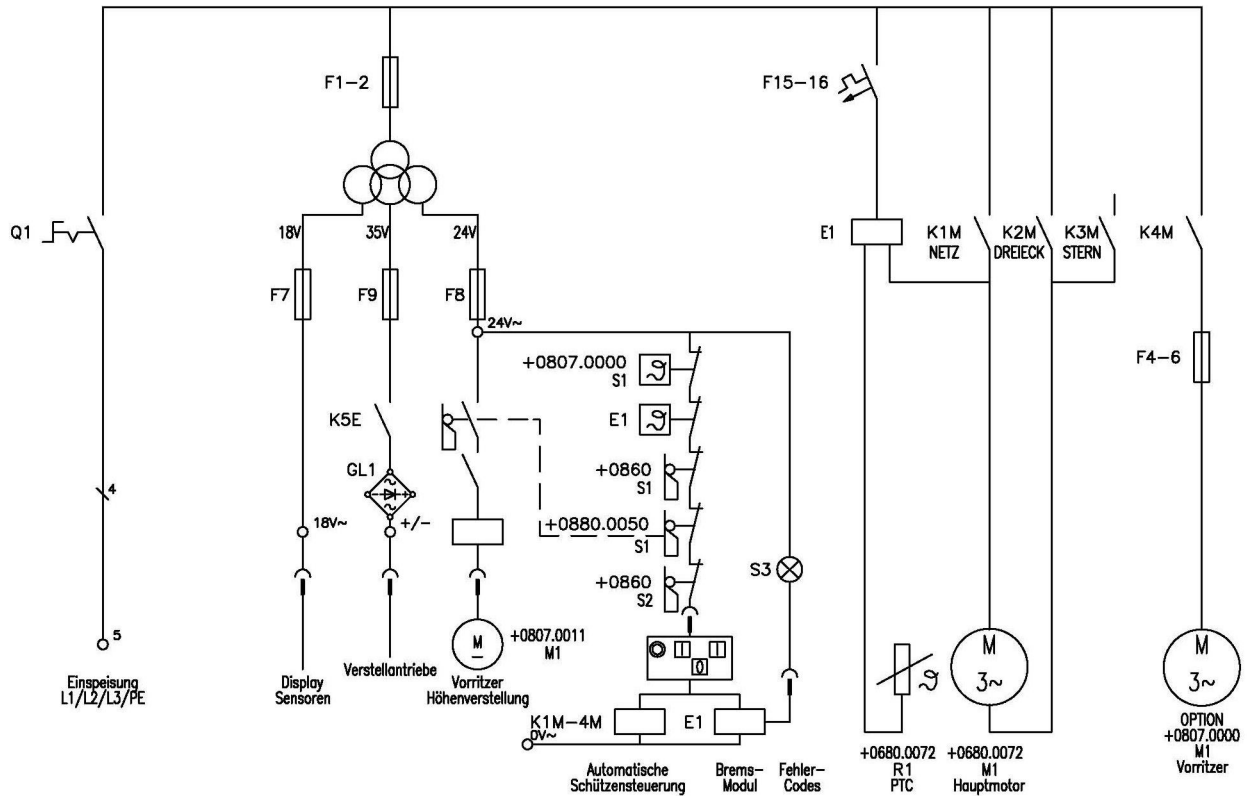


Fig. 5-30 Model X/TE

Designation	Designation
Q1	Main switch
F1-F2	Control fuse (primary)
F7-F9	Control fuse (secondary)
F15-F16	Fuses, braking current
+0860 S1	Sliding table limit switch
+880.0050S1	Saw blade cover limit switch
+0860 S2	Machine door limit switch
GL1	Rectifier, DC drives
+0680.0072 M1	Main saw motor
+0807.0000 M1	Scoring saw motor
+0680.0072 R1	Temperature monitor for main saw motor

5.3.7 Connecting the extraction system (customer side!)

Total extraction system connection $D = 140 \text{ mm}$

$V_{\text{min}} = 1150 \text{ m}^3/\text{h}$ at 20 m/s

Bottom extraction connection $D = 120 \text{ mm}$

The hoses and Y-tube are not supplied as standard with the machine.

The dust emission values – measured in accordance with the “Principles for Testing Dust Emission (Workplace-Related Dust Concentration) from Woodworking Machines” issued by the German trade association’s technical commit-

tee for wood – are under 2 mg/m^3 . When the machine is attached to a correctly functioning extraction system with an air speed of at least 20 m/s (measured at the connection socket) you can assume it is and will stay compliant with the technical reference concentration (TRK) value for wood dust that is in force in Germany. For perfect and safe operation, the machine must be connected to the extraction system at the extraction sockets (rear of machine frame and protection hood support). The minimum air speed at the extraction sockets must be 20 m/s.

The 80 mm extraction hose from the hood to the connection socket on the support tube is not supplied as standard. The extraction socket and hoses are not supplied as standard!

i**Note!**

Observe the following:

- Make sure that the extraction system is switched on together with the machine. For this, you can use the existing potential-free contact (POT - refer to circuit diagram) or a current transformer installed in the supply line.
- When using spray device (SPRAY), make sure that you use a suitable extraction system in order to avoid faults.
- 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!

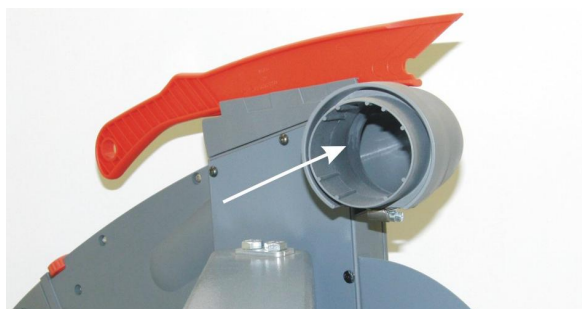


Fig. 5-31 Extraction connection WA 80 X/ TE



Fig. 5-32 Extraction connection, chip duct

5.3.8 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.

Sub rollers on the sliding table

Check the sub-rollers

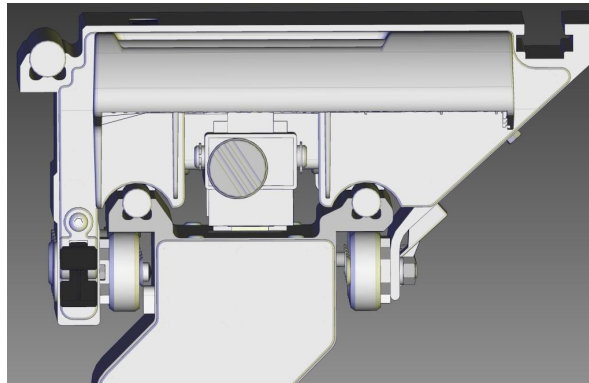


Fig. 5-33 Sub-rollers

The sub-rollers must run smoothly against the start slope at the start and end of the raceway. They should be set so that they can be held by hand with noticeable force and that they slip while the sliding table is moved.

Setting of the sub-rollers

The sub-rollers have eccentric bearings and can be adjusted.

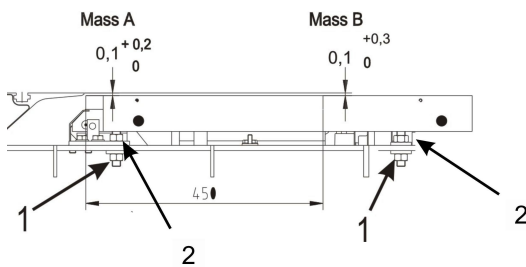
The sub-rollers are set so that they can be held by hand with noticeable force and that they slip while the sliding table is moved. Adjusting them too tightly will result in stiff movement of the sliding table, and can lead to unwanted cutting results.

Repeat this process for all sub-rollers.

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

Swinging arm

Check

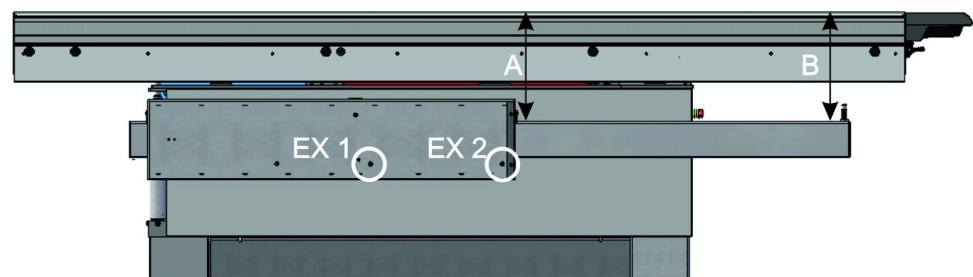


Fig. 5-34 Swivelling arm, check

Rest the swinging arm against the machine frame, fully extend the telescopic tube of the swinging arm and check dimensions A and B. Set dimensions A and B with a tolerance of 0.5 mm; if necessary correct the setting with EX 1 and EX 2.

The dimension between the bottom edge of the crosscut fence profile and the top edge of the top carriage profile (see fig. 2) is a feature for the tolerance of the swivel arm setting. The dimension must not exceed the cut length possible with the cross-slide between 0.1 and 0.9 mm (check with feeler gauge).

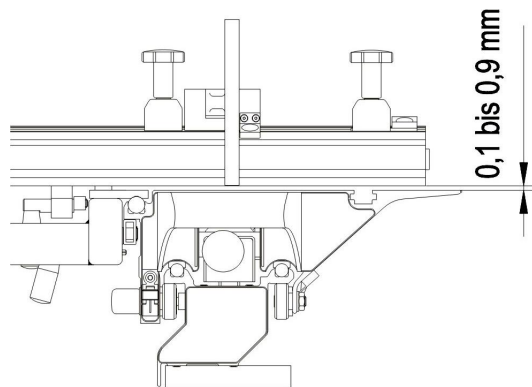


Fig. 5-35 Crosscut fence setting

Cross-slide height

Check

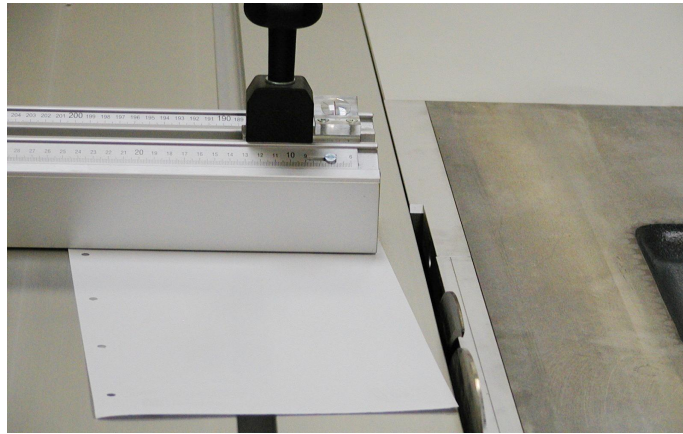


Fig. 5-36 Checking the cross-slide height

Push a piece of cardboard of approx. 0.5 mm thickness between the crosscut fence and the sliding table; it must be possible to move the cardboard freely in every position. The crosscut fence must be parallel to the surface of the sliding table!

Setting

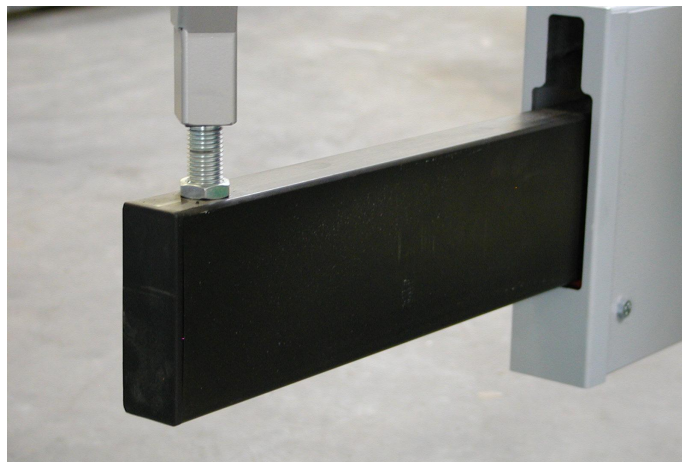


Fig. 5-37 Adjusting the cross-slide height

Adjust the height of the swinging arm bolt and fix it with a lock nut. Check that the swinging arm is parallel if the gap changes in accordance with the position of the sliding table!

Setting free cut

Sliding table

Definition:

The sliding table, the saw blade and the rip fence are not parallel to each other, so the crosscut fence and the rip fence do not form a 90° angle. The sliding table runs to the left out of the direction, by a fraction of a millimetre. In the same way, the rip fence points slightly to the right so that a gap is created behind the saw blade.

The rising saw blade tooth must not recut, but free cut should be set as small as possible. When using a scorer, make sure that both free cuts are of an equal size.

Check:

Set the saw blade to maximum cutting height, and cut off an approx. 100 mm piece from an MDF test piece at the cross-cut fence. The noise difference between the cutting and non-cutting teeth lets you identify whether the sliding table is set correctly. When the rising teeth pass, only a slight fluttering should be heard compared to the noise of the cutting teeth.

Setting:

Release the sliding table mounting components at both ends **and** in the centre (if installed). Release the lock nuts of the stop screws. Adjust them as required and fix them with lock nuts again. Then push the sliding table against the stop screws and re-tighten all fastening screws.

Rip fence

Check:

Set the saw blade to maximum cutting height, and cut off a test piece of about 300 x 450 mm (if possible MDF) at the rip fence. The sound of the rising teeth must be the same as when cutting free on the left, with the sliding table correctly set.

Cross-check:

Move the rip fence approx. 0.5 mm closer to the saw blade, push the riving knife with the workpiece slightly to the side and cut in backward approx. 50 – 80 mm. Pull out again in the normal direction, turn it once around the cross-axis, and cut in approx. 20 mm deep in the normal way. The difference between these two cuts should be almost invisible but easily felt.

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

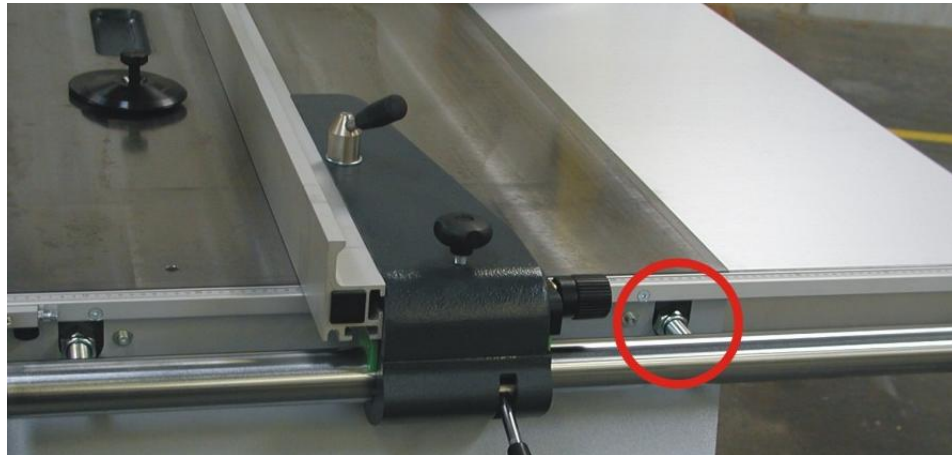
Setting: Manually adjustable rip fence


Fig. 5-38 Setting free cuts, standard rip fence

- Undo the nuts on the bolts connecting the round bar and the table width extension
- The degree of free cut on the rip fence can be altered by adjusting the middle lock nuts
- Tighten the nuts on the bolts connecting the round bar and the table width extension

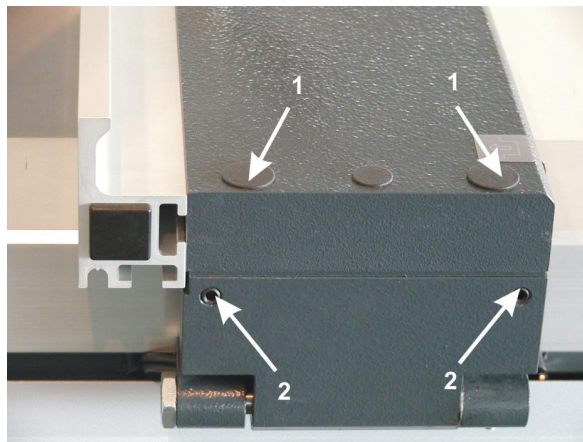
Setting: Electromotive rip fence


Fig. 5-39 Free cut setting, electromotive PA

- Release clamping screws 1
- Set the free cut by adjusting setscrews 2
- Tighten clamping screws 1

Angle cut

Checking the angle cut

Before checking the angle cut, check the settings of the sliding table and of the swinging arm, and correct them if necessary.

Carry out the check as follows:

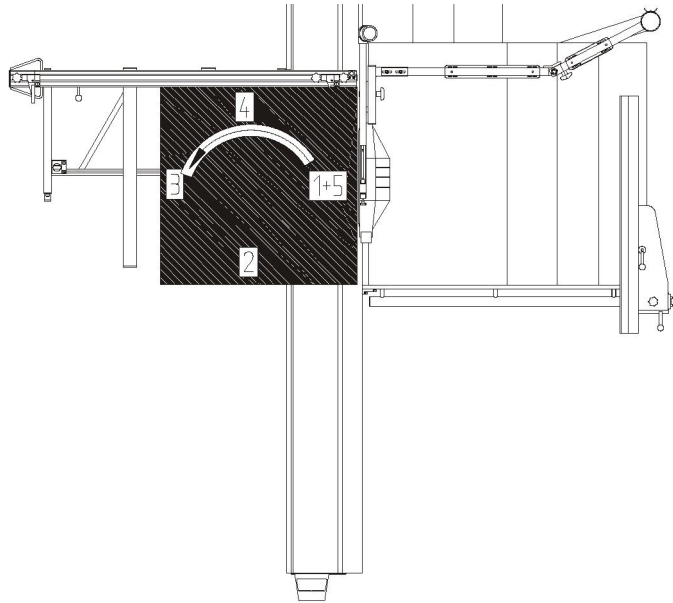


Fig. 5-40 Angle cut

As the tool, use a sharp saw blade, $D = 350 \text{ mm}$ / 3.5/2.5/72 teeth alternate bevel at $n = 5000 \text{ rpm}$. Take a $1000 \times 1000 \text{ mm}$ chipboard or MDF board, minimum board thickness 19 mm . Perform 5 cuts (see fig.), laying the last cut side at the crosscut fence for the next cut (turn the board counterclockwise). For the 5th cut, cut off a strip with a width of approx. 10 mm . Measure the thickness at both ends of the strip with a vernier caliper. The difference between the two dimensions divided by 4 gives the angular error per metre cut length.

Check:

The angle cut must be checked at a minimum of 2 different positions on the cross-slide of the sliding table.

Factory setting:

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)).

0° setting of the saw blade

Check:

- Set the tilt adjustment to 0°.
- Position 2 strips (approx. 100 mm wide) **vertically** in front of the crosscut fence, cut in this position and butt the cut surfaces against each other.
- If the setting is correct, the cut surfaces should be parallel, i.e. no gap can be seen between the cut surfaces.

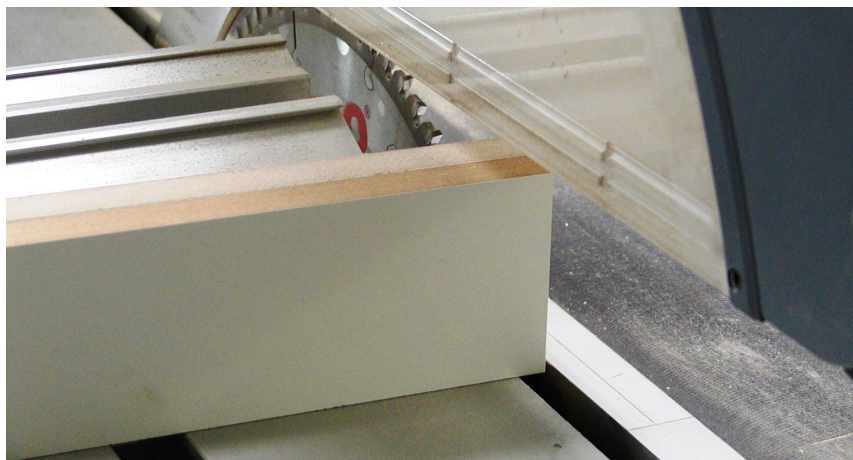


Fig. 5-41 Cutting a test piece



Fig. 5-42 Checking the 0° -setting

Setting:

Recalibrate the machine if a gap is detectable!

6 Operating

6.1 Working safely with the dimension saw

6.1.1 Cross-slide/crosscut fence



Fig. 6-1 Cutting boards

The crosscut fence can be installed at two positions on the cross-slide.

Position 1: Cutting boards

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



Fig. 6-2 Cutting solid wood

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

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

Function description of the crosscut-mitre fence

- The crosscut-mitre fence can be swung by 49° (angle indicated on scale), plus angle-dependent adjustable length compensation via a scale.
- Ball bearings run in the sliding table groove, preventing the stop fence coming into the cutting plane when swung
- Clamping of the stop profile at the pivot and on the degree scale
- Additional clamping at the 90° position
- Movable, fixable C profile as an additional workpiece support

Operating elements

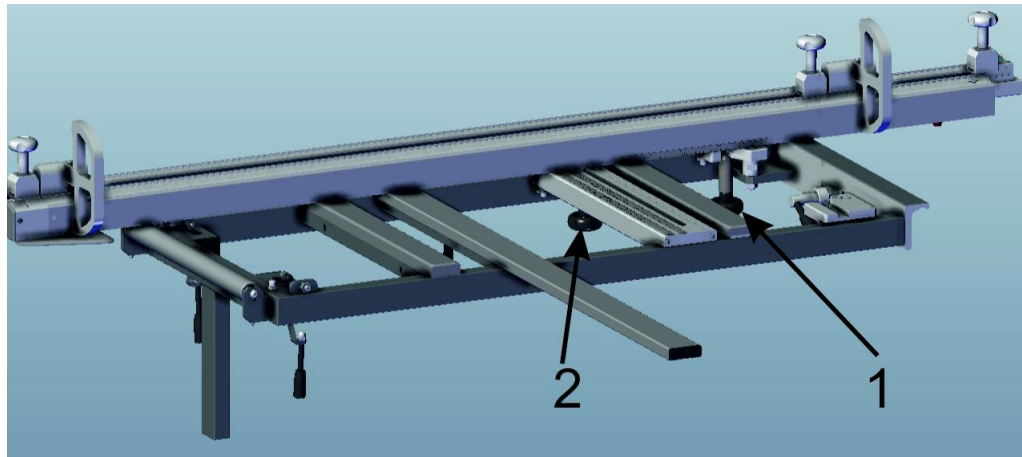


Fig. 6-3 Position of clamping screws

- [1] Clamping screw 1
- [2] Clamping screw 2

Adjusting the angle

- Release the clamping screws
- Set the crosscut-mitre fence to the desired angle
- Carry out length compensation
- Tighten clamping screw 1
- Set and tighten clamping screw 2

Length compensation

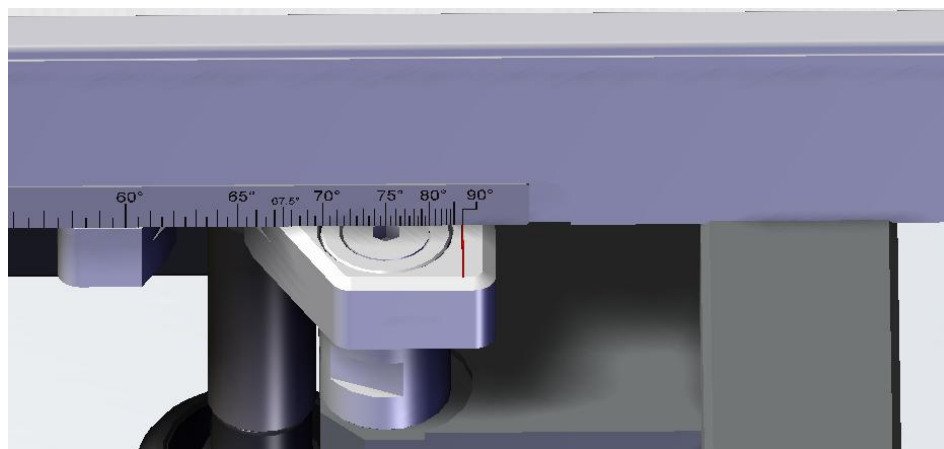


Fig. 6-4 Length compensation scale

By shifting the crosscut-mitre fence, the length dimension can be adjusted for the set angle.

Changing the crosscut-mitre fence

- Release the clamping screw and clamping lever
- Push the crosscut-mitre fence to the 2nd position
- Push the guide piece of the eccentric clamping system into the pivot groove as far as it will go and clamp it
- Tighten the clamping screws



Note!

When dimensions need to be adjusted with the stop bar, make sure that the flip stop is against the fence of the extension!

6.1.2 Rip fence

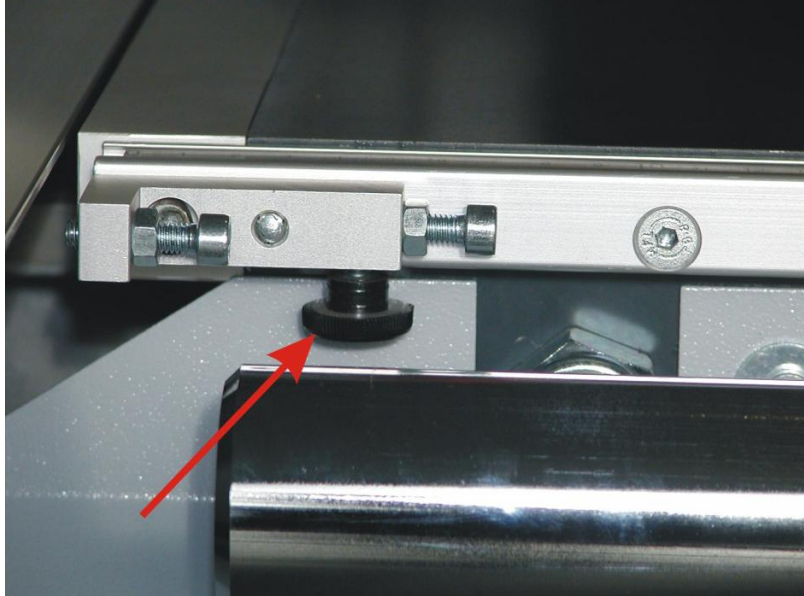


Fig. 6-5 Position of the clamping screw

For cutting parallel, the rip fence is pushed up to the required dimension. The set dimension is read off from the edge of the aluminium profile.

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

Stop fences

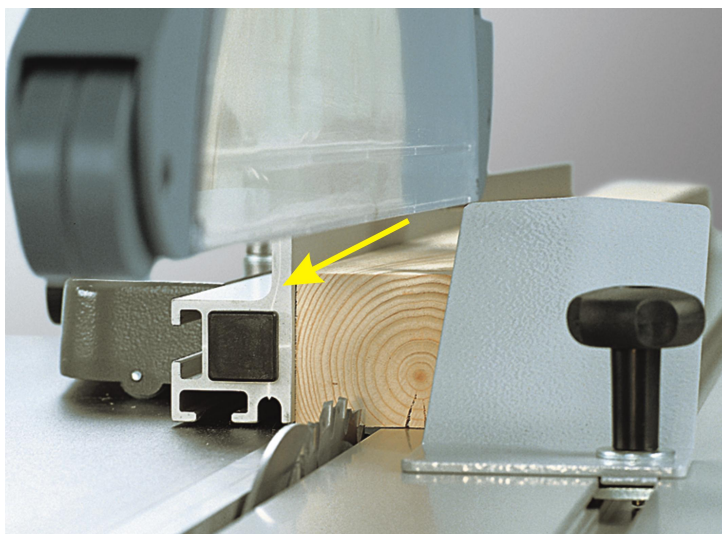


Fig. 6-6 Upright position of the stop fence

The stop fence of the rip fence can be adjusted in the cutting direction and to the profile height. Clamp it in the required position with the top eccentric lever. For crosscutting short workpieces and for recessing or other work cycles during which offcuts can become jammed between the stop and the saw blade, the stop fence is moved forward until its rear end is in front of the saw blade.

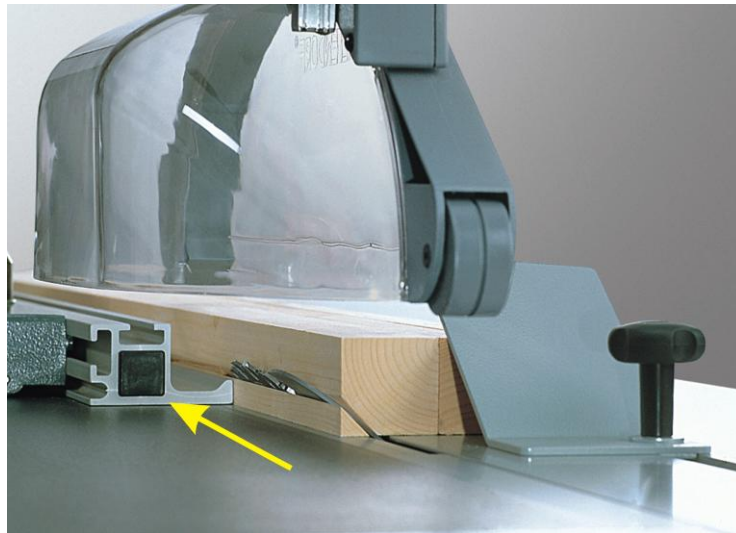


Fig. 6-7 Flat position of the stop fence

The stop fence is moved into the flat position when cutting flat and narrow workpieces. This means there is more space for workpiece guidance and the fence can be moved closer to the saw blade, in particular when the saw blade is tilted, without hitting the protection hood.



WARNING!

Danger of injury!

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

6.1.3 Double roller carriage

Sliding table operating elements:



Fig. 6-8 Sliding table operating elements

Hand grip with optional saw controls and infinitely variable carriage locking

6.2 Working examples

General information

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.

Tools

First, make sure that you only use saws in perfect condition, that the riving knife is correctly set and that the top protection hood is lowered close above the workpiece to be cut. The latter is also particularly important for ensuring perfect functioning of the top extraction system.

Rotational speed



Note!

Make sure that the correct rotational speed is set and, after the machine has been switched on, do not start pushing 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.

Edge cutting (trimming)



Fig. 6-9 Edge cutting

Tool: Circular saw blade for longitudinal cuts

Work cycle: Fit the clamping shoe on the sliding table. Lay the workpiece with the hollow side down, and press underneath the clamping shoe. Push the workpiece forward by applying pressure with the ball of your right hand on the workpiece edge. Place your hands with sufficient safety clearance from the tool.

Longitudinal cutting of narrow workpieces

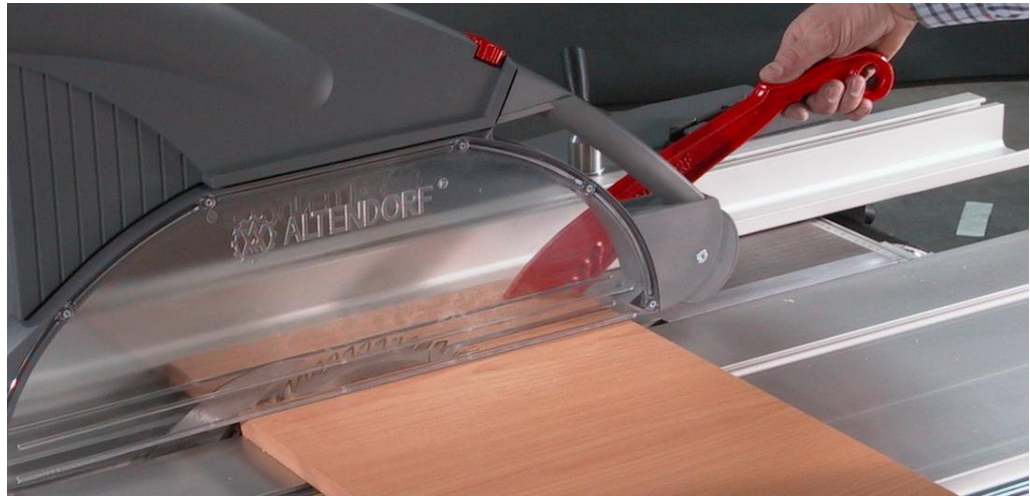


Fig. 6-10 Longitudinal cutting

Workpiece width < 120 mm

Tool: Circular saw blade for longitudinal cuts

Work cycle: Set the rip fence to the required cutting width. Lower the top protection hood according to the workpiece height. Push the workpiece (aligned along the fence) and sliding table forward, using the push stick in the vicinity of the saw blade, and push the parted workpiece beyond the riving knife. Use the push stick from the very beginning when cutting short workpieces.

Cutting strips



Fig. 6-11 Cutting strips

Tool: Circular saw blade for fine cuts

Work cycle: Set the aluminium straight edge of the rip fence to the low guide surface. Lay 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 to push the strip beyond the riving knife.

Crosscutting wide workpieces



Fig. 6-12 Crosscutting

Tool: Circular saw blade for crosscuts

Work cycle: Lay the workpiece against the crosscut fence; when pushing forward, push firmly against the fence with your left hand. 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 rising gear rim.

Concealed cutting, rebating



Fig. 6-13 Concealed cutting

Tool: Circular saw blade for fine cuts

Work cycle: When rebating, select the cutting sequence so that the cut-out strip is produced on the side of the blade opposite the fence. Lower the protection hood onto the workpiece and ensure good workpiece guidance (left hand presses the workpiece against the rip fence).

Concealed cutting, grooving



Fig. 6-14 Grooves

Tool: Grooving tool permitted for manual feeding (max. width 20 mm)

Work cycle: Close the table opening with a table strip matched to the grooving tool. Set the tool to the required groove depth. Leave the riving knife in as a rear tool cover. When pushing forward, firmly press the workpiece onto the table (otherwise danger of unintentional insert operation.).

**Note!**

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

Crosscutting against the rip fence

Fig. 6-15 Crosscutting

Lay the material against the crosscut fence of the cross-slide. Set the required dimension at the rip fence, pulling back the stop fence to the front of the saw blade after releasing the clamping, and guide the workpiece with the sliding table. When the stop fence is pulled back, the workpiece cannot jam between the saw blade and fence.

Crosscutting short and narrow workpieces

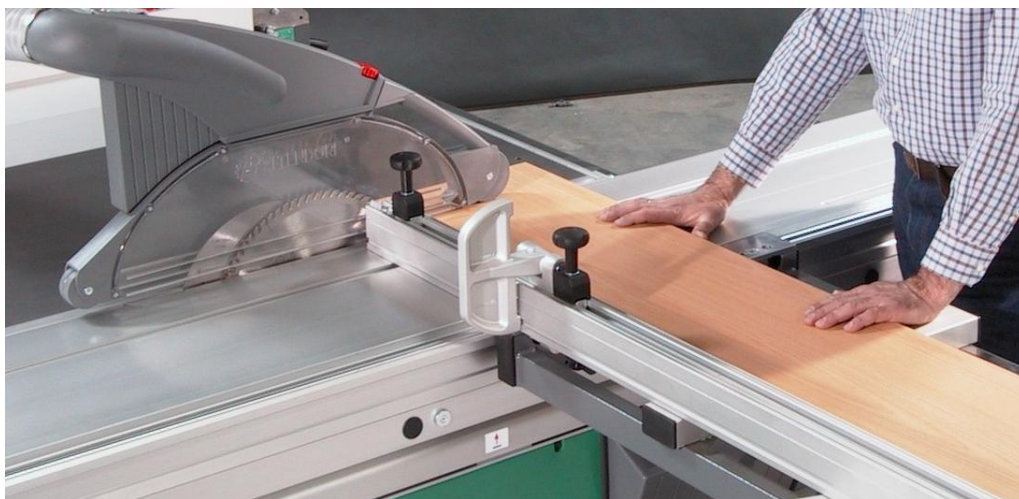


Fig. 6-16 Crosscutting

Tool: Circular saw blade for fine cuts

Work cycle: Adjust the deflector wedge featuring a magnet (not part of the scope of supply) such 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



Fig. 6-17 Dividing

For this work cycle, the dimension can be set both on the rip fence and on the crosscut fence. If several pieces of the same size are to be cut from a large board, it is best to first cut off parallel strips at the rip fence and then cut them to the required dimension. However, if the workpieces exceed the cutting width of the machine, the dimension is set at the machine's crosscut fence.

6.3 Machine operation

6.3.1 Main switch/Motor protection

Main switch

Before the saw drives are switched on the main switch must be set to position I. The main switch is BLACK which means that this main switch has no EMERGENCY OFF function! When the main switch is used to turn the machine off the saw drives stop with no braking!

Motor protection

If the motor protection cuts in it is a sign that the motor is being overloaded and the cause must be identified and rectified before the machine is switched back on (e.g. blocking of the drive by a jammed workpiece, feed too great or failure of a mains phase).

The drive motors are protected against overload by a coil protection. If the motor gets too hot this automatically switches the motor off. Note here that for machines with scorers this drive is switched off as well, even if this motor was not overloaded. The machine cannot be switched back on until the motor has cooled down. The motor can take several minutes to cool down!

Rapid flashing (frequency 4Hz) of the main saw ON button signals that the motor protection has cut in. (Not UL/CSA)



Note!

Checking the winding protection

The resistance figure (750 Ohm \pm 200 Ohm) of the PTC resistors is to be checked at least once a year in the motor terminal box by a specialist electrician. The test voltage of the meter may not exceed 1.5V for this test!

6.3.2 Switching the drives on and off

Before switching on the machine, make sure that all protective devices required for the respective work cycle are attached and operative. In addition, check that the saw blades are correctly fitted and that there are no workpieces or other objects in their vicinity. Check that the circular saw blade is running in the correct direction by briefly switching on.

Make sure that the extraction system switches on at the same time as the machine.

Start the main saw by pressing the LH white push button arranged in the panel. It automatically runs up to the operating speed (with start-up current reduction). 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 RH push button that is also arranged in the panel.



Fig. 6-18 Operating panel at eye level (only model X)



Fig. 6-19 Operating panel on the machine stand (model X/TE)

To **switch off** in normal operating mode, press the **LH black** button. When the OFF button for the main saw is actuated, both saw drives are switched off, however, the scoring saw can also be switched off individually using the RH black button.

In addition, the machine can be switched off with the EMERGENCY STOP buttons on both sides of the sliding table. However, this switch-off possibility should only be used in case of an emergency.

6.3.3 Setting the speed

The following speeds can be set on the main drive by changing over the belt :
3000, 4000, 5000 revolutions/minute.

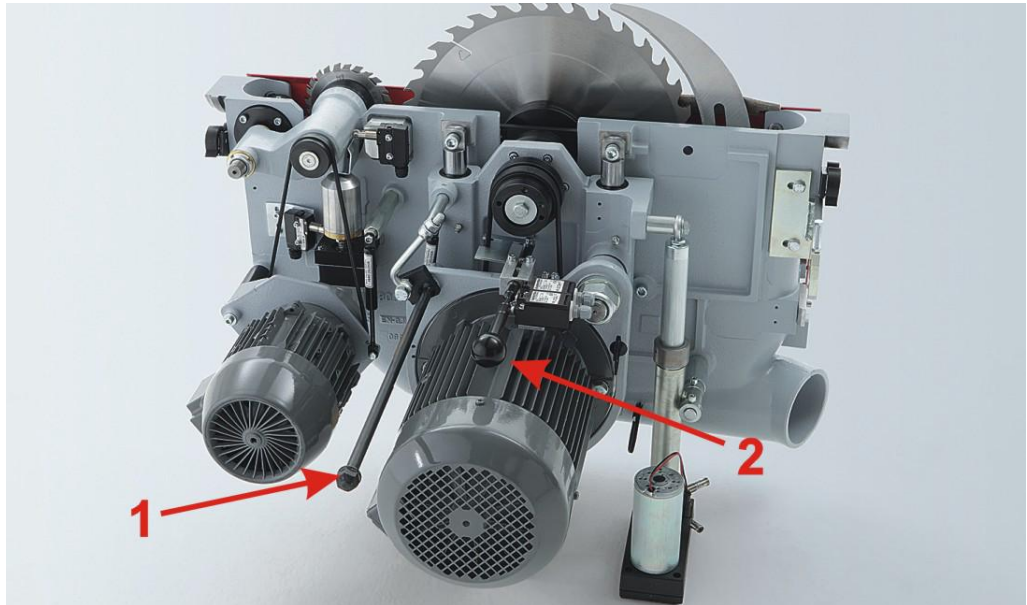


Fig. 6-20 Changing the speed

- [1] Lever
- [2] Speed control

Speed change

- Switch off drive.
- Press the EMERGENCY OFF button.
- Move lever with the included ring spanner down until it engages.
- Set speed control to the desired speed setting, position the belt accordingly.
- Lift the lever.



Note!

The belt tension is set automatically after the belt is moved!

6.3.4 Changing the main saw blade

The following points must always be observed:

- Do not fit any saw blades that are cracked or damaged in any way.
- Only fit saw blades with a diameter between 250 and 450 mm (WA 80 X/TE).
- Check that the set rotational speed is suitable for the saw blade. For assembled saw blades, the maximum admissible rotational speed is specified on the blade as $n_{max} = \dots$

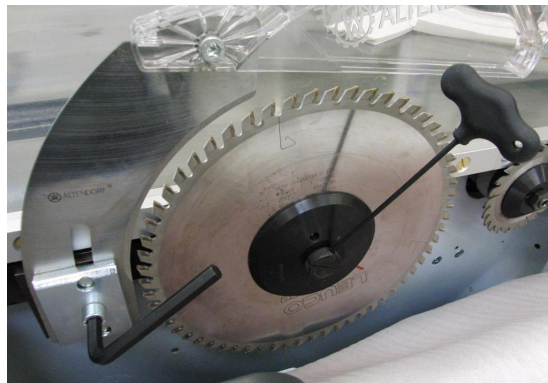
Please note that only saw blades with side holes (2 holes 10 mm \varnothing at a spacing of 60 mm) can be fitted. This is necessary to prevent loosening of the saw blade mounting in the course of braking!



WARNING!

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

Changing the saw blade



- Switch off the drives.
- Move the saw blade to the upper height adjustment 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.
- Raise the red cover plate.
- Use an Allen key to undo the screw.
- Undo the expansion-head screw by turning it counter-clockwise with the flange.

- Before fitting the new saw blade, remove any adhering chips and dust from both flanges.
- Place the saw blade and front flange onto the saw shaft, turn in by hand and tighten with the wrench.
- Check the riving knife for strength and distance from the saw blade.
- Close the bottom protective cover and turn **manually** to check that the saw blade runs problem-free.

**WARNING!**

After changing a saw blade, always check that the riving knife is correctly set!

- The distance of the riving knife from the gear rim must be between 3 mm and 8 mm.
- The highest point of the riving knife must be set beneath the topmost tooth.
- The riving knife must be at least 0.2 mm thicker than the main saw blade.

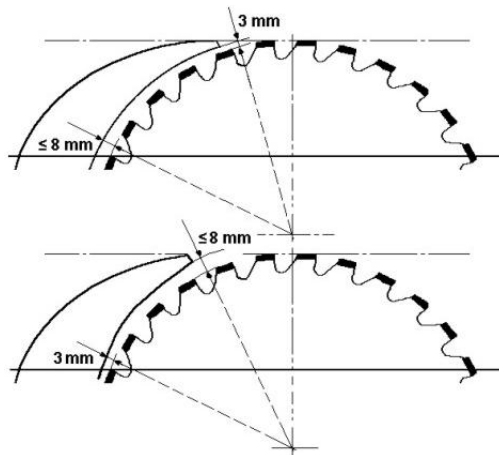


Fig. 6-21 Adjusting the riving knife

6.3.5 Saw blade recommendation

Workpiece	Cutting speed [m/s]	Zuschnittsägeblatt D = 250 mm	Saw bladeCut Ø = 300 mm	Saw bladeCut Ø = 350 mm	Saw bladeCut Ø = 400 mm	Saw blade Finishing Ø = 250 mm	Saw blade Finishing Ø = 300 mm	Saw blade Finishing Ø = 350 mm
Softwood lengthwise	60 - 80	24 W	28 W	32 W	36 W	40 W	48 W	54 W
Softwood crosswise	60 - 80	40 W	48 W	54 W	60 W	48 W	60 W	72 W
Hardwood lengthwise	60 - 80	24 W	28 W	32 W	36 W	40 W	48 W	54 W
Hardwood crosswise	60 - 80	40 W	48 W	54 W	60 W	48 W	60 W	72 W
Veneers	70 - 80	60 W	72 W			80 W	96 W	
Plywood	50 - 70	40 W	48 W			48 W	60 W	
Blockboard	60 - 80	48 W	60 W	72 W		60 W	72 W	84 W
Laminated wood	50 - 80	40 W	48 W	54 W		60 W	72 W	84 W
Raw chipboard	60 - 80	48 W	60 W	72 W		60 W	72 W	84 W
Coated chipboard	60 - 80	60 TF	72 TF	84 TF		80 TF	96 TF	108 TF
MDF-raw boards	60 - 80	48 W	60 W	72 W		60 W	72 W	84 W
MDF laminated	60 - 80	60 W	72 W	84 W		80 W	96 W	108 W
Laminate floorings	50 - 70	60 TF	72 TF	84 TF		80 TF	96 TF	108 TF
Hard fiberboard	60 - 80	60 W	72 W	84 W		80 W	96 W	108 W
PVC-Profiles*	40 - 60	60 TF	72 TF	90 TF		48 DD	60 DD	72 DD
Clear acrylic sheets	40 - 50	60 W	72 W	84 W		80 WF	96 WF	108 WF
Plasterboard sheets	40 - 60	48 W	60 W	72 W		60 W	72 W	84 W
Aluminium-Profiles*	60 - 70	60 TF	72 TF	90 TF		80 TF	96 TF	108 TF

Abbreviations:

- * negative tensioning angle
- W Alternate tooth, TF Trapezoidal flat tooth

- When selecting tools ensure that no blunt or damaged tools are fitted.
- The highest permitted speed specified on the tool may not be exceeded.
- Do not use high-speed steel (HS) saw blades!
- The tools must have a hole diameter of 30 mm and driving pin holes of 10 mm Ø in a 60 mm Ø semicircle.
- The correct choice of saw blade depending on the material to be handled and the strength of the material is vitally important, along with the correct cutting speed for clean cutting and low stress on the operator. A selection of saw blades for the Altendorf sliding table saw is shown in the table (p.29). This table makes no claims to be complete. Since the figures for the cutting speed cover large ranges in some cases it is vital to determine the best cutting speed for optimum cutting results by trial and error!

Scorer saw blade

Scorer saw blade: D=120 mm, 24 teeth, flat tooth, arbor diameter 22 mm

Riving knife

The riving knives supplied are suitable in size for the range of saw blade diameters specified in the table. The corresponding range is specified on the bottom end of the relevant riving knife.

The thickness of the riving knife is however only correct where the blades concerned are commercially available carbide-tipped saw blades. For CV saw blades other riving knives are required.

6.3.6 Table locking

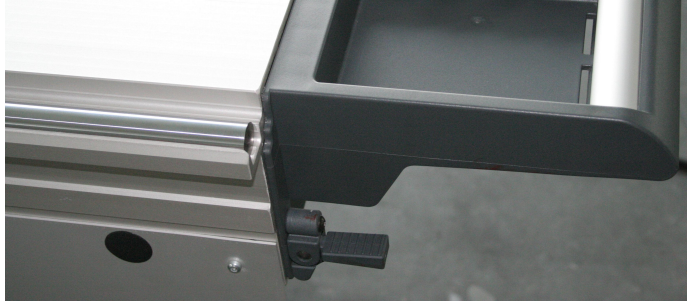


Fig. 6-22 Locking

The sliding table can be locked in any position using the lever at the operator end. The workpiece can thus be laid up against the crosscut fence without the easy running sliding table being involuntarily set in motion. The table is unlocked by turning the lever at the end of the upper carriage by hand.

With an additional locking adjustment the sliding table can be blocked in its center setting with the carriage lock.



WARNING!

Do not oil or grease the brake lining or the contact surface. Do not use solvents near the brake lining. Ignoring this advice can lead to brake malfunction or the destruction of the brake lining.

6.3.7 Rip fence fine adjustment



Fig. 6-23 Rip fence with fine adjustment

Manual fine adjustment enables the rip fence to be adjusted precisely. The fence can be set with pinpoint precision by means of the adjusting screw.

6.4 Machine control system

6.4.1 Adjustment of the main saw blade



Fig. 6-24 Control system

Rise and fall adjustment (Type X/TE)

- The cutting height is reduced by pressing the - key.
- The cutting height is increased by pressing the + key.
- When the Plus key or the Minus key are held down the saw blade moves for 2 sec. in creep mode and then switches automatically to fast mode.

Tilt adjustment (Type X/TE)

It is imperative to ensure the following before tilting the saw blade:

**DANGER!**

Danger from kicked-out offcuts!

Danger from the blade touching the rip fence!

- Clear the main table of any workpieces in the tilting area
- When cutting widths less than 180 mm, set the rip fence straight edge in the flat position

Adjusting the tilt angle:

- The angle of tilt is reduced by pressing the 0°- key.
- The angle of tilt is increased by pressing the 45° key.
- When the 0° key or the 45° key are held down the saw blade moves for 2 sec. in creep mode and then switches automatically to fast mode.
- Tapping the 0°/ 45° keys briefly makes an adjustment of 0.1° in each case!

Calibrating the tilt angel display

- Tilt the saw blade into the vertical position and check the 90° angle.
- Press the RESET key for 3 seconds, the displays shows 0.0.
- The machine is calibrated.



Fig. 6-25 Calibrating (Type X / TE)

6.5 Protection hood



Fig. 6-26 Normal working position

Swing away the protection hood as follows:

- Turn off the main switch and secure against turning on again
- Actuate the release lever



Fig. 6-27 Clamping screw

- Swing the protection hood away



Fig. 6-28 Protection hood swung away



Note!

After completing the work cycle, immediately swing the protection hood back into the normal working position and lock it with the clamping screw .



WARNING!

You may only work with a removed protection hood in special cases and with increased caution, e.g. for bulky workpieces.

6.6 Optional modules

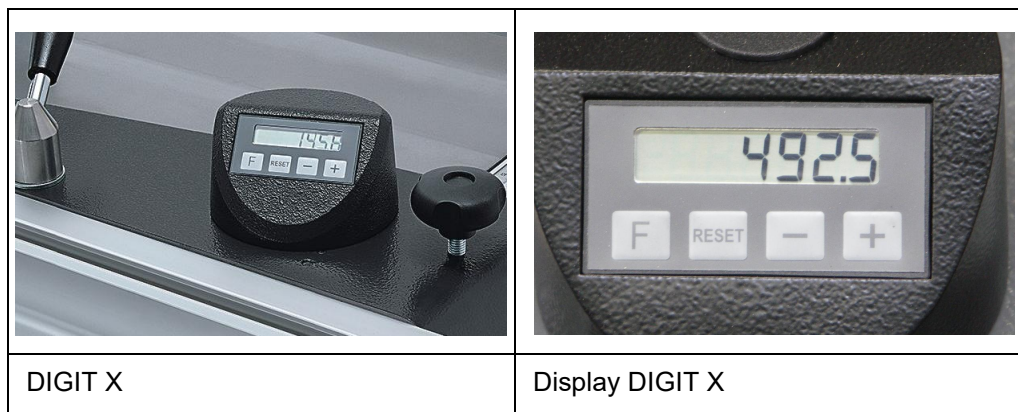


Note!

A separate operating manual is attached for the following options:

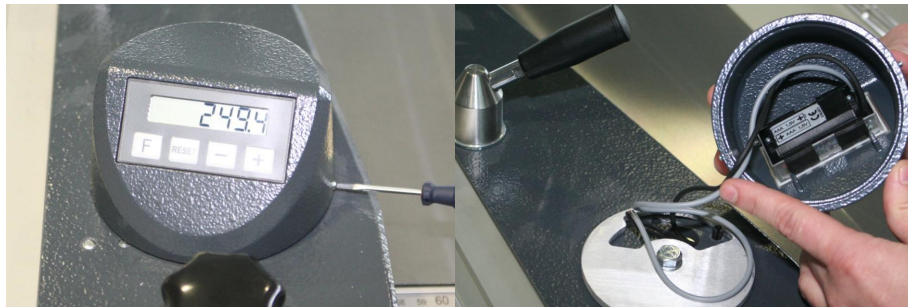
- **DUPLEX**
- **Parallelogram cross slide [PQS]**
- **Spray unit**
- **Tip-Servo-Drive®**
- **Vacuum clamping in the sliding table**

6.6.1 Rip fence with DIGIT X



The electronic measuring system with digital display and fine setting system ensures precise and quick setting of the rip fence. The display is always in the field of vision. The touch-free measuring system is not sensitive to dust. When the guide surface of the stop fence is changed, the dimensions are corrected automatically in the measuring system.

Changing the batteries



Undo the clamping screw.

Remove the housing accommodating the display electronics.



Undo the screws and remove the cover.



Change the batteries, ensuring correct polarity.

Basic setting of the display unit

The basic setting of the display unit is needed in order to adapt the measuring system to the machine situation. Check and, if necessary, re-enter the basic setting for each tool change. The basic setting can only be carried out together with the tools used so it cannot be done at the factory.

- Push the rip fence to the left against the mechanical stop
- Hold the F button down and press RESET.
- Set the rip fence to a cutting width of 130 mm (straight edge in the position of the low guide surface).
- Cut a test piece and measure the workpiece width with a sliding calliper.
- Hold the F button down; the right-hand digit of the display starts flashing after approx. 3 seconds.
- Pressing the + button increases the flashing digit by 1 each time. When the maximum number value (9) is passed, the numbers start again with 0.
- Pressing the Minus button decreases the flashing digit by 1 in each case.
- Release the F key.
- The dimension that has been set is saved as the basic setting.

Calibrating the display unit

Calibration of the display unit is required when the fence has been moved under the main table.

- Push the rip fence to the left against the mechanical stop.
- Hold the F button down and briefly press the RESET button; the display shows the basic setting again.

Switching the display unit from mm to inches or inches to mm

- Hold the + button down for more than 3 seconds; the display shows inches (or mm).
- Release the + key; the display unit now shows the set dimension in inches (or mm).

6.6.2 Scoring saw

The scorer cuts approx. 1-2 mm into the material from below; 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.

- We recommend the RAPIDO scoring tool.
- Start the scoring saw by pressing the RH white push button on the panel.

The supplied flanges can be used to insert all common scoring tools in one and two parts up to a diameter of 120 mm and a hole diameter of 22 mm.

Adjustment

Lateral adjustment is mechanical and can be carried out while the machine is running.

Use the supplied Allen key in position 1 for lateral adjustment.



Fig. 6-29 Lateral scorer adjustment

Height adjustment is electromotive. The operating height of the scorer blade can only be adjusted while the machine is at a standstill:

Normal operation:

- After the hood is opened, the scoring unit moves up to the pre-set top operating height.
- Close the hood - the scoring unit moves to its bottom resting position.
- If the scorer is started, it automatically moves from its resting position to the set operating height.

Setting the operating height:

Upward:

- To increase the operating height, undo the clamping screw (1) and turn the setting screw (2) LEFT.

- Once the desired operating height has been reached, re-tighten the clamping screw (1).

Downward:

- To reduce the operating height, undo the clamping screw (1) and turn the setting screw (2) RIGHT.
- Then close the hood so that the scoring unit can return to its resting position.
- After the hood is opened again, the scoring unit moves up to the newly set operating height. (We recommend turning the setting screw (2) clockwise to the limit and closing the hood to set the new operating height, starting from the resting position).
- Once the desired operating height has been reached, re-tighten the clamping screw (1).

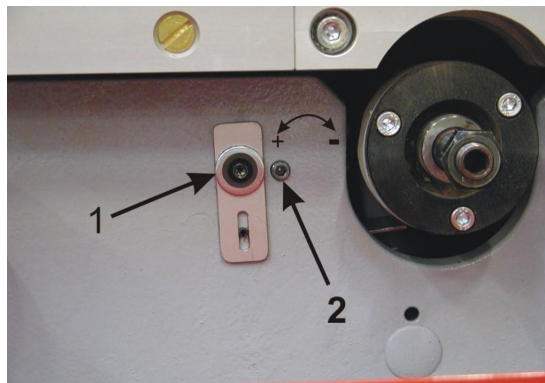


Fig. 6-30 Height adjustment

Changing the 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.
- Move the sliding table in the cutting direction.
- Unlock the lock in the middle of the saw blade by pressing the knob on the middle carriage.
- Move the sliding table to the end position in the cutting direction.
- Fold down the lower protective cover (red cover plate) (scorer moves to the top-most position).
- Use the supplied tools to undo the fastening nut.
- Before fitting the new scoring blade, remove any adhering chips from both flanges.
- Place the saw blade and front flange on the saw shaft, and tighten the nut clockwise.

Also observe the following when using **RAPIDO** scoring blades with infinitely variable cutting width adjustment:

- Failure to comply with the operating instructions reduces Health and Safety at Work and results in our liability becoming null and void.
- max. speed = 8200 rpm.
- 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!

Adjusting the saw blade width

Standard saw blade

- Use the spacer disks to set the scoring blade to a width 0.1 mm larger than the width of the main saw blade.
- First align the scorer with the main saw on the table side.
- Test cut.
- Align on the LH side by adding or removing spacer rings.

Saw blade with infinitely variable cutting width adjustment *RAPIDO*

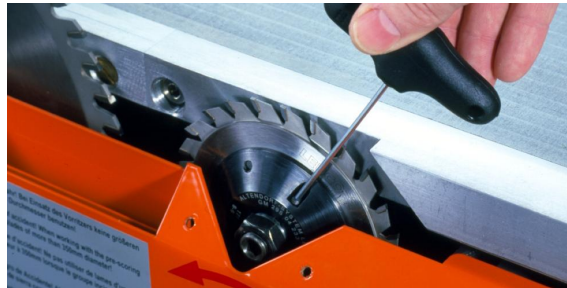


Fig. 6-31 Undo the clamping screw.

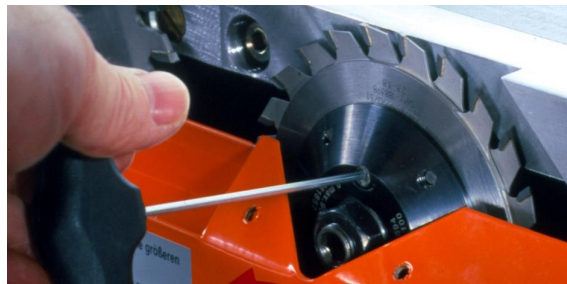


Fig. 6-32 Adjust the spindle.



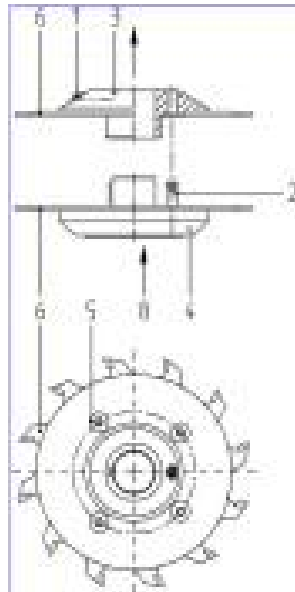
Note!

Only use the supplied tools for adjustment work!

- Undo 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.

Replacing the scoring blade for RAPIDO

Fig. 6-33 RAPIDO saw blades



Remove the adjustment unit from the machine. It may be necessary to loosen the clamping screw because an excessively tight clamping screw can cause the adjustment unit to jam on the shaft!

Removal:

Using the Allen wrench:

- Release the clamping screw (1), turn the spindle (2) approx. 3 – 4 turns clockwise until the flange (3) can be removed from the holder (4).

Using the internal torx wrench:

- Undo the screws (5).
- Remove the circular saw blade (6).
- Carefully clean the flange (3) and screws (5). Make sure that the running and flange surfaces are dry and free of dust.
- Fit a new saw blade, paying attention to the rotational direction and hole pattern: The circular saw blade (6) is in full contact with the flange (3) and the shoulder on the circular saw blade must point to the contact surface.
- Turn in the screws (5) and tighten with a torque of 8.6 Nm.
- Proceed in the same manner for the other half of the adjustment unit.

Installation: (Do not apply oil or grease)

- The clamping screw (1) is undone.
- Fit the flange (3) vertically onto the holder (4) so that the spindle (2) engages in the threaded hole (7).
- Turn the spindle (2) counter-clockwise with the Allen wrench. The flange (3) is drawn onto the holder (4); the force applied must not increase.
- Continue turning the spindle (2), until the two circular saw blade halves are in contact.
- Install the adjustment unit on the machine.
- Set the cutting width, see above.
- Slightly tighten the clamping screw (1).

6.6.3 Motor driven rip fence

Motorised rip fence (Type X)

The motorised rip fence has a traverse speed of 200 mm/sec. and an accuracy of $\pm 0,1$ mm. The fence automatically recognizes the position it's in, especially when it reaches the danger area around the saw blade. It has an emergency cut-out to prevent the risk of crushing. The dimensions are corrected automatically from the upright or the flat position.

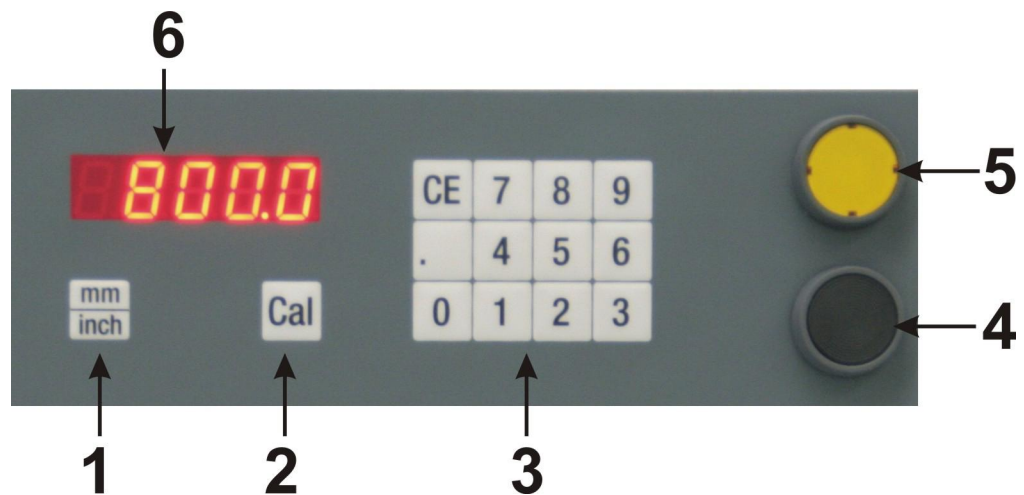


Fig. 6-34 Operation rip fence

- [1] Switch dimension mm/inch. Button pressed > 3 sec., the display will show inch (mm)
- [2] Cal-button for calibration. Button pressed > 3 sec. , the display shows C. Enter the new value via the numeric keypad and press the Cal-button. The new value is shown on the display..
- [3] Numeric keypad
- [4] STOP positioning
- [5] START-positioning ; For cutting widths of less than 180 mm, the rip fence is in the safety area and it may only be possible to change the axes in touch mode, i.e. adjustment only takes place while the Start button is pressed. Touch mode is indicated by a flashing Start symbol at the top left of the display.
- [6] Display

6.6.4 Dimension display unit DIGIT L



Fig. 6-35 DIGIT L

The dimensions that have been set are displayed digitally in the 150 mm to 3200 mm range to an accuracy of ± 0.1 mm. The proximity sensor operates wear-free and is not sensitive to dust. A precise adjustment system is used for precision setting in 1/10 mm increments.

Operating the display electronics



Fig. 6-36 DIGIT L display unit

Press button 1: the throw-over stop side switches over. Pressing button 2, 3 or 4 changes the measuring range on the display electronics. Throw-over stop 1 is permanently connected to the measuring system and the display unit. The measuring range is from approx. 150 mm to approx. 1630 mm. Throw-over stop 2 is designed as an individual flip stop and has a distance of 295.0 mm in relation to throw-over stop 1 when it makes contact at the LH stop of throw-over stop 1. This results in a measuring range of approx. 445 mm to approx. 1750 mm. If throw-over stop 2 is pushed onto the length extension, this results in a measuring range of about 1750 mm to 3200 mm; if necessary, the length extension can be connected to throw-over stop 1 with the aid of the detent bolt.

Power supply

Power is supplied by a rechargeable battery. The charging state is shown in the bottom right hand corner of the display. The batteries can be recharged using the supplied charger.

Changing the rechargeable battery

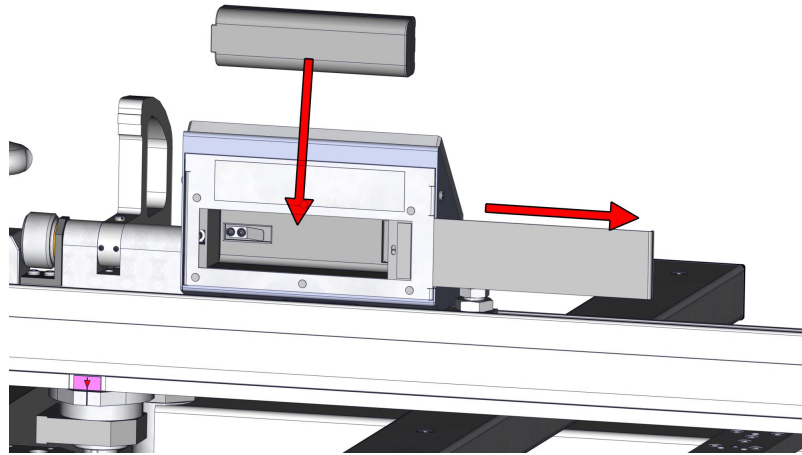


Fig. 6-37 Changing the rechargeable battery for DIGIT L , DIGIT LD



Fig. 6-38 Battery charger

Basic setting / calibration of the display unit

The basic setting of the display unit is required in order to adapt the measuring system to the machine situation. Check and, if necessary, re-enter the basic settings following each tool change.

How to proceed:

- Push throw-over stop 1 with the electronic display unit to the RH side against the mechanical stop.
- Fix throw-over stop 1 with a clamping screw.
- Cut a test piece, measure the workpiece width with a calliper and enter the precise value as follows:
- Press key 2; after three seconds the following calibration menu will appear (only the first throw-over stop can be calibrated).



Fig. 6-39 Calibration

- [1] Press the adjacent function key to select the required decade. If the highest decade has been selected and the function key is reactivated, the lowest decade is automatically selected.
- [2] Press the "+" key to increment the display value of the active decade.
- [3] Press the adjacent function key to decrement the displayed value of the active decade.
- [4] Press the adjacent function key to store the new throw-over stop value under parameter L-L1; this value is also automatically calculated with the throw-over stop values displayed on the user interface.

Switching the display unit from mm to inches or inches to mm

- Press the Menu button
- Select inch (or mm) as the measuring unit.

6.6.5 PALIN

PALIN

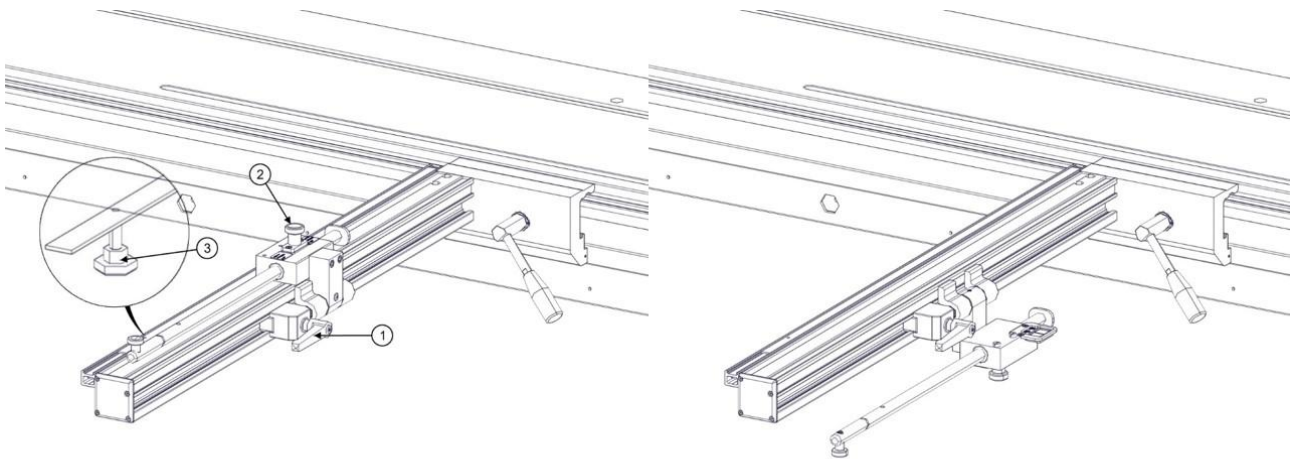


Fig. 6-40 PALIN

Function overview

- 2 fence settings
- Infinitely variable positioning of the fence
- Additional support surface

Dimension setting

- Release the clamping lever (1)
- Set PALIN to the required dimension
- Tighten the clamping lever (1)

Fence setting

- Pull out the locking pin (2)
- Move the fence rod to its position above the handle and allow it to engage (note the information on the dimension)

The dimension scale can be re-adjusted after undoing the clamping screw (3).

Additional support surface

- Move the clamping lever (1) to a horizontal position
- Fold down the device

PALIN_D with digital dimension display and precision setting system

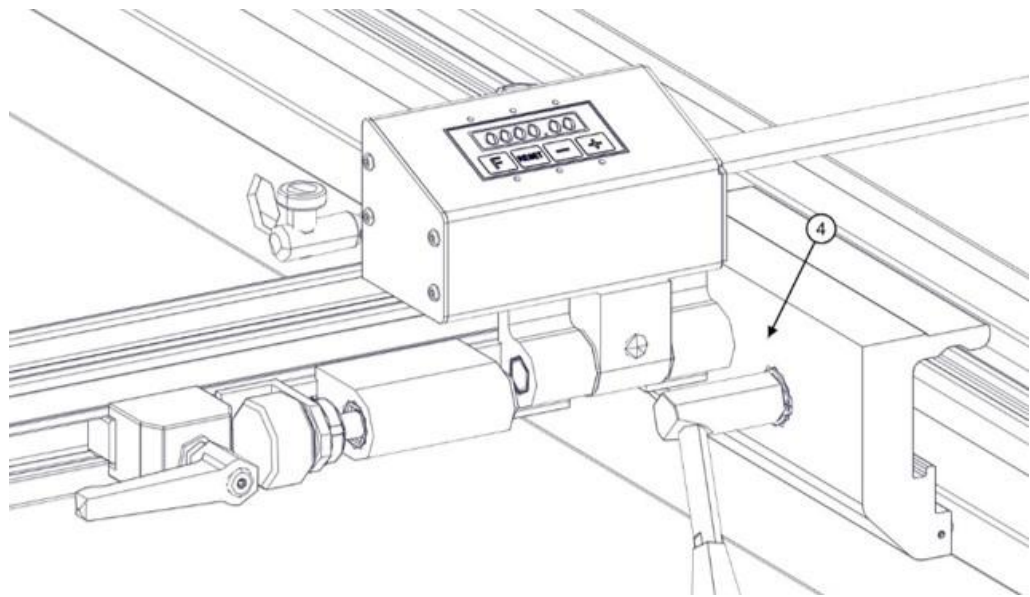


Fig. 6-41 PALIN D

The PALIN D has the same features as the PALIN, but with a digital value display and a precision setting system down to an accuracy of 1/10 mm.

Re-establishing/referencing the dimension display

- Push the fence unit and fence rod to the right up to the fence clamping profile (4)
- Fasten the fence unit using the clamping screw
- Press the F and RESET key simultaneously
- The basic setting value reappears on the display unit.

Calibrating the dimension display

- Push the fence unit and fence rod to the right up to the stop
- Fasten the fence unit using the clamping lever (1)
- Cut a test piece and measure the workpiece width with a sliding calliper.

- Hold the F button down; the right-hand digit of the display starts flashing after approx. 3 s
- Keep the F button pressed
- Pressing the + button increases the flashing digit by 1 each time. After the maximum numeric value 9, the numbers start again at 0.
- Pressing the - key reduces the flashing digit by 1 each time; after the min. numeric value 0, the numbers start again at 9.
- Release the F button to save the dimension as the basic setting.

Switching the display unit from mm to inches or inches to mm

- Hold the + button down for more than 3 seconds; the display shows inches (or mm).
- Release the + key; the display unit now shows the set dimension in inches (or mm).

Changing the batteries

		
<p>Carefully push out the display unit.</p>	<p>Undo the screws and remove the cover.</p>	<p>Change the batteries, ensuring correct polarity!</p>

Tbl. 6-1 Changing the batteries



Note!

For information on how to handle (rechargeable) batteries, see chapter 3.

6.6.6 STEG (second support)

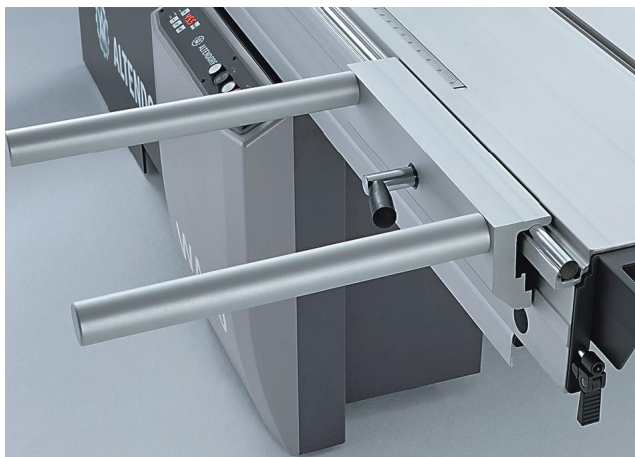


Fig. 6-42 STEG

The STEG provides additional support when cutting large panels and can be positioned anywhere along the sliding table using its cam clamping handle.

6.6.7 Workpiece hold-down device

Electro-pneumatic hold-down device

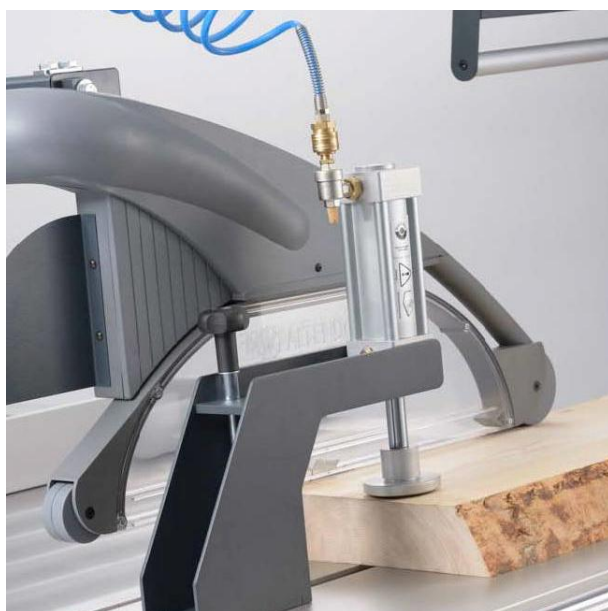


Fig. 6-43 Electro-pneumatic hold-down device

The electro-pneumatic hold-down device secures the workpiece to the crosscut fence and operates with a clamping force of max. 1000 N at a pressure of 6 bar. The maximum clamping height is 90 mm.

The safety cylinder only clamps the workpiece when the pressure plate is positioned vertically in relation to the cylinder axis. If the pressure plate is offset by more than 2° from the vertical position, e.g. by contact with the back of the hand, no clamping force builds up.

**WARNING!****Danger of crushing fingers!**

- Ensure that the pressure plate can freely move in all directions, otherwise, the safety function will be impaired.
- Never reach beneath the pressure plate on purpose!
- Never use two fingers to reach opposite to, parallel or centred beneath the clamping plate!



Fig. 6-44 Remote control, hold-down device

The up/down movement is controlled wirelessly by a hand-held radio transmitter using the respective button.

If two hold-down units are used, both are controlled simultaneously.

When the button is pressed, the lamp lights up in red. If no red signal appears, the battery CR2032 must be replaced.

6.6.8 Mitre fences

Single-sided mitre fence



Fig. 6-45 Single-sided mitre fence

The fence can be fitted quickly and easily to the sliding table with an eccentric clamping system. Dimension scales are inclined in order to stay in the operator's field of vision. Crosscutting to 2500 mm.

7 Faults



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
- Secure the main switch against unintentional switching on.

Fault	Cause	Troubleshooting
The machine cannot be switched on.	The main switch is not turned on.	Turn the main switch to switch position "I".
	Power failure or phase failure	Wait for power to be reinstated, or eliminate cause for loss of power, check factory fuses.
	Overload protection has responded.	Wait until the motor has cooled down
	Sliding table moved over saw blade centre line.	Pull back the sliding table upstream of the saw blade centre line.
	EMERGENCY STOP button pressed	Release EMERGENCY STOP button again by pulling
	Bottom cover plate in front of the saw blades is open Control circuit fuses defective	Close the cover plate 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!
The machine switches off automatically during operation.	Power failure in one or several phases due to responding factory fuses.	Eliminate cause of phase failure.

Fault	Cause	Troubleshooting
	Overload protection has responded due to blunt saw blade or excessive feed speed.	Change saw blade or reduce feed speed. Wait until the motor has cooled down
	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.
Swinging arm does not move smoothly.	Soiled telescopic tube or track rollers	Clean telescopic tube or track rollers; check wiper.
The finished size of the cut workpiece does not match the cutting width set on the crosscut stop.	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.
Sliding table has lateral play.	Sub-rollers incorrectly set.	Set the sub-rollers.

Fault	Cause	Troubleshooting
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. Workpiece jammed. Operating error	Readjust the free cuts. Insert a riving knife in the cutting line or use a wider riving knife. 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.
Workpiece has burn marks.	Blunt saw blade Feed too low Saw blade has too many teeth. Incorrect free cut	Change the saw blade. Increase the feed rate. Change the saw blade. Readjust the free cut.
Break-outs in spite of scorer	Scorer not aligned with main saw blade Scoring blade too narrow	Readjust free cuts; the free cut should be almost "0". Adjust saw width.

Fault	Cause	Troubleshooting
Workpiece rises when cut with the scorer.	Blunt scoring blade	Exchange the sawing blade.
	Cutting height too low	Set the scoring blade higher.

Error messages for model X/TE

Fault	Cause	Troubleshooting
Fast flashing (4Hz) in the ON button	Main saw motor overheated	
Slow flashing (1Hz) in the ON button	Brake unit fault: Mains contactor not in neutral position.	Turn the machine off and on again using the main switch.
LEDs of the speed display flash	No signal	Check the position of rotational speed pushers

Error messages for model X

Fault	Cause	Troubleshooting
E 001	Stop fence upright Limit switch Min. reached	
E 002	Stop fence, flat Limit switch Min. reached	
E 003	Limit switch Max. reached	
E 004	Activate the EMERGENCY STOP string (CE string)	Check the EMERGENCY STOP button Check the door/cover/sliding table limit switches
E 006	Collision, quick shut-down	
E 007	Drive positioning fault	

Error messages for model TE

Fault	Cause	Troubleshooting
E.H1	Limit switch Min. reached	
E.H3	Limit switch Max. reached	
E.S3	Limit switch Max. reached	
E.04	Activate the EMERGENCY STOP string (CE string)	Check the EMERGENCY STOP button Check the door/cover/sliding table limit switches
E.07	Drive positioning fault	

8 Technical data

8.1 Standard equipment

Main saw	Tool holder diameter Saw blade tilting range Idling speed	30 mm 0 - 46° 3000/4000/5000 rpm
Sliding table	Sliding table cutting length	See table
Crosscut fence	Crosscutting at crosscut fence Crosscutting at crosscut fence with DIGIT L	3500 mm 3200 mm
Rip fence	Cutting width at rip fence	800, 1000, 1300 mm
Scoring saw	Saw blade Ø Tool holder Ø Idling speed	120 mm 22 mm 8200 rpm
Extraction	Bottom connection diameter Top connection diameter for WA 80 TE/ X Overall vacuum connection Ø 140 mm Air speed Minimum air volume	120 mm 80 mm 1200 PA 20 m/s 1110 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. 1000 kg
Electrical equipment	Lockable main switch Contactor control with push button operation Braking of main motor, monitoring of winding temperature Adjustment of tilt and cutting height for the main saw Main saw motor Scoring saw motor	Control voltage 24 VAC Electronic multi-functional module controlled by an electro motor, digital tilt angle display 4 kW 0.75 kW

Sliding table cutting lengths

Maximum cutting length for placing board material against the crosscut fence or crosscut-mitre fence

Sliding table length [mm]	2250	3000	3200	3400	3800	4300
Cutting length [mm] With or without scoring blade	2155	2905	3105	3305	3705	4205

Usable saw blades:

Saw blade diameter [mm]	250	300	315	350	400	450
Saw blade height, vertical [mm]	0 - 50	0 - 75	0 - 82	0 - 100	0 - 125	13-150
Saw blade height at 45° [mm]	0 - 33	0 - 50	0 - 56	0 - 70	0 - 87	6-103

8.2 Special equipment

Available special equipment
<p>Main saw drive Boosted motors up to 7.5 kW</p>
<p>Scoring unit</p> <ul style="list-style-type: none"> - with height adjustment powered by an electric motor and manual side adjustment - RAPIDO scoring system - LED lighting in the hazard area of the scoring unit
<p>Sliding table Sliding table lengths from 2250 mm to 4300 mm Second support (STEG), support width extension by 400 mm On/Off switch at the end of the sliding table</p>
<p>Front support roller Width 300 mm, can be positioned by 90° under the sliding table (minimum length 3000 mm)</p>
<p>Crosscut-mitre fence (WGA) <i>WGA</i>: Length dimension compensation and length compensation via scale, cross-cutting up to 3500 mm <i>WGA_L</i>: Length dimension adjustable via digital display with fine adjustment (DIGIT L), setting accuracy 0.1 mm, length compensation adjustable via scale, crosscutting up to 3200 mm <i>WGA_LD</i>: Length dimension, angle, length compensation via digital display (DIGIT LD), setting accuracy 0.1 mm / 0.01°, crosscutting up to 3200 mm</p>
<p>Mitre fences <i>One-sided mitre fence</i>, angle adjustable via scale from -30° to 45°, cross-cutting up to 2500 mm <i>DUPLEX</i>: Double-sided mitre fence, angle adjustable via scale from 0° to 90°, crosscutting up to 1350 mm or 2150 mm <i>DUPLEX D</i>: Double-sided mitre fence, angle digitally adjustable, setting accuracy 0.01°, crosscutting up to 1350 mm or 2150 mm <i>DUPLEX DD</i>: Double-sided mitre fence, angle and length digitally adjustable, setting accuracy 0.01° / 0.1 mm, length display is adapted automatically in accordance with the angle that is set, crosscutting up to 1350 mm or 2150 mm</p>
<p>Rip fence <i>with DIGIT X</i>: digital cutting width (DIGIT X), manual fine adjustment, setting accuracy 0.1 mm <i>CNC rip fence</i>: Travel speed 200 mm/sec, automatic position detection, setting accuracy 0.1 mm</p>

Available special equipment
<p>Parallel cutting device PALIN PALIN: Crosscutting 80 - 950 mm, adjustable via scale PALIN_D: Crosscutting 80 - 950 mm, digitally adjustable, setting accuracy 0.1 mm</p>
<p>Cross-slide - <i>Telescopic cross-slide width extension</i> for up to 650 mm extra width - <i>Additional cross-slide with floor supporting roller</i>, max. workpiece weight 250 kg</p>
<p>Parallelogram cross slide (PQS) Cross slide with integrated digital display and length compensation, can be swivelled through 47° on both sides, adjustment accuracy 0.01 mm</p>
<p>LASER cutting line display Light beam width approx. 3 mm, light beam length approx. 5 m</p>

We reserve the right to make technical changes.

9 Maintenance and repairs

9.1 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.

9.2 Customer service addresses

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