



## MODEL G0660X 16" JOINTER/PLANER MANUAL INSERT

Thank you for purchasing the Model G0660X 16" Jointer/Planer. To reduce the risk of injury when using this machine, you **MUST** read and understand this entire insert and the entire English-written portion of the factory manual before operating your new machine.

Do not hesitate to contact our technical support at (570) 546-9663 or email [techsupport@grizzly.com](mailto:techsupport@grizzly.com) if you have any questions about your machine. We are here to help!



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#TR10761 PRINTED IN GERMANY



# MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

## MODEL G0660X 16" COMBINATION JOINTER/PLANER

### Product Dimensions:

Weight ..... 640 lbs.  
 Length/Width/Height ..... 71<sup>3</sup>/<sub>4</sub>" x 30<sup>5</sup>/<sub>16</sub>" x 39<sup>3</sup>/<sub>4</sub>"  
 Foot Print (Length/Width)..... 25<sup>1</sup>/<sub>4</sub>" x 28<sup>3</sup>/<sub>4</sub>"

### Shipping Dimensions:

Type ..... Wood Crate  
 Content..... Machine  
 Weight..... 717 lbs.  
 Length/Width/Height..... 88" x 36<sup>3</sup>/<sub>4</sub>" x 75"

### Electrical:

Required Power Supply ..... 220V, Single-Phase, 60 Hz  
 Switch..... ON/OFF Buttons  
 Switch Voltage ..... 220V  
 Cord Length ..... 6<sup>1</sup>/<sub>2</sub> ft.  
 Required Power Supply Circuit..... 20A  
 Included Plug ..... No  
 Required Plug & Receptacle..... NEMA 6-20 or L6-20

### Motor:

Type ..... TEFC Capacitor Start Induction  
 Horsepower..... 3 HP  
 Voltage..... 220V  
 Phase..... Single  
 Amps ..... 14A  
 Speed..... 3450 RPM  
 Cycle ..... 60 Hz  
 Number Of Speeds ..... 1  
 Power Transfer ..... Ribbed V-Belt (Serpentine)  
 Bearings..... Shielded and Permanently Sealed

### Main Specifications:

#### Cutting Capacities (Jointer)

Bevel Jointing ..... 0-45°  
 Maximum Width of Cut ..... 16<sup>1</sup>/<sub>8</sub>"  
 Maximum Depth of Cut ..... <sup>3</sup>/<sub>16</sub>"

#### Cutting Capacities (Planer)

Maximum Width of Cut..... 15<sup>3</sup>/<sub>4</sub>"  
 Maximum Depth of Cut Planing Full Width ..... <sup>3</sup>/<sub>16</sub>"  
 Number of Cuts Per Minute..... 16,200  
 Number of Feed Speeds ..... 2  
 Feed Speeds ..... 18 FPM  
 Minimum Workpiece Length..... 12"  
 Maximum Workpiece Thickness..... 9"



**Cutterhead Information**

Speed .....	5400 RPM
Diameter .....	80mm
Number of Knives .....	3
Type of Knives .....	Straight, Reversible HSS
Knife Length .....	16 <sup>1</sup> / <sub>8</sub> "
Knife Width .....	1 <sup>1</sup> / <sub>2</sub> "
Knife Thickness .....	3 <sup>3</sup> / <sub>32</sub> "
Knife Adjustment .....	Self Setting

**Table Information (Jointer)**

Length .....	65 <sup>15</sup> / <sub>16</sub> "
Width .....	17 <sup>5</sup> / <sub>16</sub> "
Floor to Table Height .....	33 <sup>7</sup> / <sub>8</sub> "

**Table Information (Planer)**

Length .....	25 <sup>1</sup> / <sub>4</sub> "
Width .....	15 <sup>3</sup> / <sub>4</sub> "
Floor to Table Height .....	21 <sup>1</sup> / <sub>4</sub> "-30 <sup>5</sup> / <sub>16</sub> "

**Fence Information**

Length .....	43 <sup>5</sup> / <sub>16</sub> "
Height .....	6 <sup>5</sup> / <sub>16</sub> "
Positive Stops .....	45-90°

**Construction**

Body .....	Formed Steel
Cutterhead .....	C45 Steel
Infeed Roller .....	Steel w/Vulcanized Rubber Coating
Outfeed Roller .....	Steel w/Vulcanized Rubber Coating
Jointer Table .....	Cast Iron
Paint .....	Powder Coated

**Other Information**

Dust Port .....	1 @ 5 <sup>1</sup> / <sub>2</sub> "
Measurement Scale (Jointer) .....	Metric
Measurement Scale (Planer) .....	Metric

**Other Specifications:**

Country of Origin .....	Germany
Warranty .....	1 Year
Serial Number Location .....	ID Label on Front of the Stand

**Features:**

- Leitz Cutterhead w/Pre-Adjusted & Reversible HSS Knives
- Heavy-Duty Machined Cast Iron Tables
- Quick Conversion from Jointing to Planing



# SECTION 1: SAFETY

## WARNING

### For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

### *NOTICE*

This symbol is used to alert the user to useful information about proper operation of the machine.

## WARNING

### Safety Instructions for Machinery

**OWNER'S MANUAL.** Read and understand this owner's manual **BEFORE** using machine. Untrained users can be seriously hurt.

**EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery. to reduce the risk of eye injury or blindness from flying particles Everyday eyeglasses are not approved safety glasses.

**HAZARDOUS DUST.** Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

**WEARING PROPER APPAREL.** Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips which could cause a loss of workpiece control.

**HEARING PROTECTION.** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

**MENTAL ALERTNESS.** Be mentally alert when running machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.



# WARNING

## Safety Instructions for Machinery

**DISCONNECTING POWER SUPPLY.** Always disconnect machine from power supply before servicing, adjusting, or changing cutting tools (bits, blades, cutters, etc.). Make sure switch is in OFF position before reconnecting to avoid an unexpected or unintentional start.

**INTENDED USE.** Only use the machine for its intended purpose and only use recommended accessories. Never stand on machine, modify it for an alternative use, or outfit it with non-approved accessories.

**STABLE MACHINE.** Unexpected movement during operations greatly increases the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.

**FORCING MACHINERY.** Do not force machine. It will do the job safer and better at the rate for which it was designed.

**GUARDS & COVERS.** Guards and covers can protect you from accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly before using machine.

**REMOVING TOOLS.** Never leave adjustment tools, chuck keys, wrenches, etc. in or on machine—especially near moving parts. Verify removal before starting!

**AWKWARD POSITIONS.** Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

**DANGEROUS ENVIRONMENTS.** Do not use machinery in wet locations, cluttered areas, around flammables, or in poorly-lit areas. Keep work area clean, dry, and well lighted to minimize risk of injury.

**APPROVED OPERATION.** Untrained operators can be seriously hurt by machinery. Only allow trained or properly supervised people to use machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

**CHILDREN & BYSTANDERS.** Keep children and bystanders a safe distance away from work area. Stop using machine if children or bystanders become a distraction.

**FEED DIRECTION.** Unless otherwise noted, feed work against the rotation of blades or cutters. Feeding in the same direction of rotation may pull your hand into the cut.

**SECURING WORKPIECE.** When required, use clamps or vises to secure workpiece. A secured workpiece protects hands and frees both of them to operate the machine.

**UNATTENDED OPERATION.** Never leave machine running while unattended. Turn machine **OFF** and ensure all moving parts completely stop before walking away.

**MAINTENANCE & INSPECTION.** A machine that is not properly maintained may operate unpredictably. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. Regularly inspect machine for loose bolts, alignment of critical parts, binding, or any other conditions that may affect safe operation. Always repair or replace damaged or mis-adjusted parts before operating machine.

**EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.



## **WARNING**

# Additional Safety Instructions for Jointers

- 1. JOINTER KICKBACK.** "Kickback" is when the workpiece is thrown off the jointer table by the force of the cutterhead. Always use push blocks and safety glasses to reduce the likelihood of injury from "kickback." If you do not understand what kickback is, or how it occurs, **DO NOT** operate this machine.
- 2. CUTTERHEAD ALIGNMENT.** Keep the top edge of the outfeed table aligned with the cutterhead knife or insert at top dead center (TDC) to avoid kickback and personal injuries.
- 3. PUSH BLOCKS.** Always use push blocks whenever surface planing. Never pass your hands directly over the cutterhead without a push block.
- 4. WORKPIECE SUPPORT.** Supporting the workpiece adequately at all times while cutting is crucial for making safe cuts and avoiding injury. Never attempt to make a cut with an unstable workpiece.
- 5. KICKBACK ZONE.** The "kickback zone" is the path directly through the end of the infeed table. Never stand or allow others to stand in this area during operation.
- 6. MAXIMUM CUTTING DEPTH.** The maximum cutting depth for one pass is  $\frac{3}{16}$ ". Never attempt any single cut deeper than this!
- 7. JOINTING WITH THE GRAIN.** Jointing against the grain or jointing end grain is dangerous and could produce chatter or excessive chip out. Always joint with the grain.
- 8. KEEPING GUARDS IN PLACE.** With the exception of rabbeting, all operations must be performed with the cutterhead guard in place. After rabbeting, be sure to replace the guard.
- 9. PROPER CUTTING.** When cutting, always keep the workpiece moving toward the outfeed table until the workpiece has passed completely over the cutterhead. Never back the work toward the infeed table.
- 10. USING GOOD STOCK.** Jointing safety begins with your lumber. Inspect your stock carefully before you feed it over the cutterhead. Never joint a board that has loose knots, nails, or staples. If you have any doubts about the stability or structural integrity of your stock, **DO NOT** joint it!

## **WARNING**

Like all machines there is danger associated with this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

## **CAUTION**

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# WARNING

## Additional Safety Instructions for Planers

- 1. INSTRUCTION MANUAL.** This machine presents significant safety hazards to untrained users. Read/understand this entire manual before starting the planer.
- 2. REACHING INSIDE PLANER.** Never reach inside planer or remove covers when the planer is connected to power.
- 3. INFEEED CLEARANCE SAFETY.** The infeed roller is designed to pull material into the cutterhead. Always keep hands, clothing, and long hair away from the infeed roller during operation to prevent serious injury.
- 4. BODY POSITION WHILE OPERATING.** The workpiece may kick out during operation. To avoid getting hit, stand to the side of the planer during the entire operation.
- 5. PLANING CORRECT MATERIAL.** Only plane natural wood stock with this planer. DO NOT plane MDF, plywood, laminates, or other synthetic products.
- 6. GRAIN DIRECTION.** Planing across the grain is hard on the planer and may cause the workpiece to kick out. Always plane in the same direction or at a slight angle with the wood grain.
- 7. LOOKING INSIDE PLANER.** Wood chips fly around inside the planer at a high rate of speed. DO NOT look inside the planer or remove guards/covers when the planer is connected to power or during operation.
- 8. CUTTING LIMITATIONS.** The planer may kick out a workpiece at the operator or be damaged if pushed beyond these limits.
  - Maximum Depth of Cut..... $\frac{3}{16}$ "
  - Maximum Width of Cut .....  $15\frac{3}{4}$ "
  - Minimum Board Length..... 12"
  - Maximum Board Thickness ..... 9"
- 9. CLEAN STOCK.** Only plane clean stock. Planing stock with nails, staples, or imbedded stone will damage your inserts/knives, and may cause a fire hazard if the dust collector captures sparks or hot particles that have contacted the inserts/knives. Always thoroughly inspect and prepare stock to avoid these hazards.
- 10. REMOVING JAMMED WORKPIECES.** To avoid serious injury, always stop the planer and disconnect power before removing jammed workpieces.
- 11. DULL/DAMAGED INSERTS/KNIVES.** The planer may kick out a workpiece at the operator or give poor finish results if it is operated with dull or damaged inserts/knives.
- 12. UNPLUGGING DURING ADJUSTMENTS.** When connected to power, the planer can be accidentally turned **ON**. Always disconnect power when servicing or adjusting the components of the planer.
- 13. WORKPIECE CLEARANCE.** Always verify workpiece has enough room to exit the planer before starting.

### WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

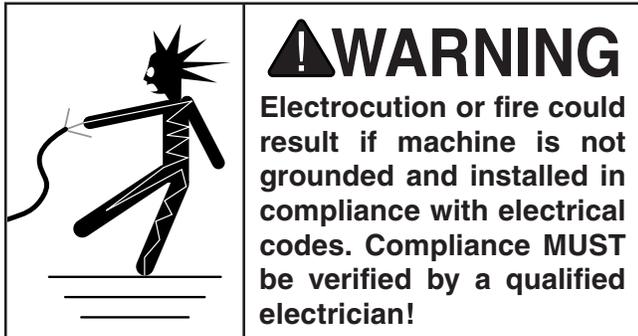
### CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



# SECTION 2: CIRCUIT REQUIREMENTS

## 220V Operation



### Full Load Amperage Draw

This machine draws the following amps under maximum load:

Amp Draw..... 14 Amps

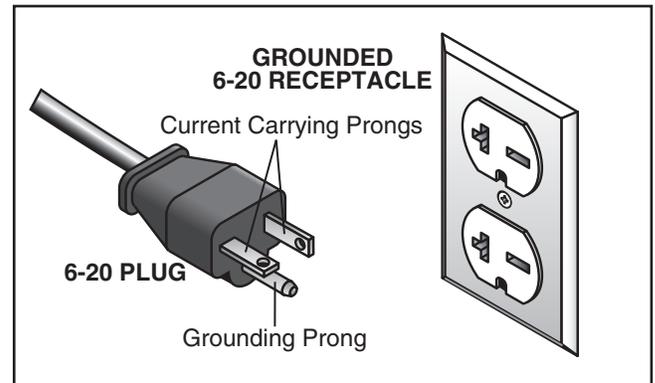
### Power Supply Circuit Requirements

You **MUST** connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

Minimum Circuit Size..... 20 Amps

### Power Connection Device

The type of plug required to connect your machine to power depends on the type of service you currently have or plan to install. We recommend using the plug shown in **Figure 1**.



**Figure 1.** NEMA 6-20 plug and receptacle.

### Extension Cords

Using extension cords may reduce the life of the motor. Instead, place the machine near a power source. If you must use an extension cord:

- Use at least a 12 gauge cord that does not exceed 50 feet in length!
- The extension cord must also have a ground wire and plug pin.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage.



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## Documentation

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### Manufacturer:

Scheppach Maschinenfabrik GmbH & Co. KG

Günzburger Straße 69

D-89335 Ichenhausen / Germany

### Dear customer,

We wish you much enjoyment and success when working with your new planing machine.

### **NOTE:**

According to product liability law, the manufacturer of this device is not liable for damage occurring to the device or through its use in the case of:

- ⇒ Improper handling
- ⇒ Non-observance of the operating instructions
- ⇒ Repairs by unauthorised third party professionals
- ⇒ Installation of and replacement using “non-original spare parts”
- ⇒ Not being “used in accordance with the requirements”
- ⇒ Failure of the electrical unit because of non-observance of the electrical regulations and VDE regulations 0100, DIN 57113 / VDE 0113

### **We recommend that you:**

#### **Before installation and initial operation, read the entire text of the operating instructions.**

These operating instructions should make it easier for you to get to know your machine and to make use of the applications for which it is specified.

The operating instructions contain important notes on how to work safely, professionally and economically with the machine, and on how you can avoid hazards, reduce repair costs and nonproductive time, and optimise the reliability and service life of the machine.

In addition to the safety specifications in these operating instructions, it is imperative that you must conform to the regulations for operation of the machine which apply in your country.

The operating instructions are to be kept beside the machine and they should be protected against dirt and dampness with a plastic cover. They must be read and followed carefully by all operating personnel before starting work. Only persons who have been instructed in the use of the machine and have been taught about the associated hazards may work at the machine. The minimum age stipulated must be respected.

Along with the safety notes contained in these operating instructions and the particular regulations of your own country, the generally recognised professional rules for the operation of woodworking machines are to be observed.

## General notes

After unpacking, check all components for possible damage occurring during transportation. Delivery personnel must be informed immediately of any claims.

- ⇒ Claims made at a later date will not be recognised.
- ⇒ Check that the delivery is complete.
- ⇒ Before using, familiarise yourself with the machine with the help of the operating instructions.
- ⇒ For accessories, replacement and spare parts, use only **original IXES components**.
- ⇒ **Spare parts can be obtained from your IXES dealer.**
- ⇒ When ordering, state our item numbers as well as the model and year of the device.
- ⇒ In these operating instructions, we have highlighted notes relating to your safety with the following sign.



- ⇒ Pass on these safety notes to everyone who works at the machine.
- ⇒ Observe all safety and hazard notices on the machine.
- ⇒ Maintain all safety and hazard notices on the machine in a legible condition.
- ⇒ Caution when operating: Danger of injury to fingers and hands by the rotating cutting tool.
- ⇒ Maximum planing block rotational speed 5400 1/min.
- ⇒ The planing block was manufactured in accordance with the DIN EN 847-1.
- ⇒ Make sure that the machine is standing stable on firm ground.
- ⇒ Only begin the working cycle when the full rotational speed has been reached.
- ⇒ Check the lines to the power connection. Do not use faulty lines. See Electrical connection.
- ⇒ Make sure that the planing machine is standing stable on firm ground when mounting.
- ⇒ Keep children away from the machine when it is connected to the electricity supply.
- ⇒ The operator must be at least 18 years old. Trainees must be at least 16 years old, but may only work at the machine under supervision.
- ⇒ Persons working at the machine must not be distracted.
- ⇒ The operating station of the machine must be kept free of shavings and waste wood.
- ⇒ Wear tight-fitting clothes. Remove jewelry, rings and wrist-watches.
- ⇒ Pay attention to the rotational direction of the motor and tool, see "Electrical connection planing machine".
- ⇒ The safety devices on the machine may not be removed or rendered unusable.
- ⇒ When working at the machine, all protective devices and covers must be installed.
- ⇒ Equipping, adjusting, measuring and cleaning work may only be carried out with the motor is switched off. Pull out the plug and wait for the rotating tool to come to a standstill.
- ⇒ The complete protective and safety devices must be remounted following repair and maintenance work.
- ⇒ Installation, repairs and maintenance on the electric installation may only be carried out by qualified professionals.
- ⇒ When correcting faults, switch the machine off. **Pull out the plug.**
- ⇒ An exhaust system should be used to remove wood shavings and sawdust. The flow rate at the suction nozzle must be **at least 20 m/s**.
- ⇒ Only work with sharpened planing knives. Blunt planing knives increase the danger of kickback.
- ⇒ Defective planing knives (splits or similar) are to be replaced immediately. **See Knife replacement.**
- ⇒ The planing block guard should always be adjusted to the width of the workpiece. The part of the knife block not in use must be covered.
- ⇒ When planing short workpieces, a feed loader must be used.
- ⇒ With inset work, always use the settings that prevent the tool backfiring.
- ⇒ Check the effectiveness of the kickback prevention device before every shift. The claw points must be square-edged.
- ⇒ When leaving the workplace, switch off the motor. **Pull out the plug.**
- ⇒ The complete protective and safety devices must be remounted following repair and maintenance work.
- Even when only moving the machine a short distance, disengage it from every external energy supply! Before bringing the machine into service again, reconnect it to the mains carefully.



### **Specified usage**

- ⇒ **The planing machine is constructed for the sole purpose of woodworking with the tools and accessories supplied.**
- ⇒ **The machine corresponds to the current EC machine guidelines.**
- ⇒ **The machine is designed for one-shift operation, operating time S 6 – 40 %.**
- ⇒ Observe all safety and hazard notices on the machine.
- ⇒ Maintain all safety and hazard notices on the machine in a legible condition.
- ⇒ When used in an enclosed area, the machine must be connected to an exhaust system.
- ⇒ Use an exhaust system to remove wood shavings and sawdust. The flow rate at the suction nozzle must be 20 m/s. Partial vacuum 1200 Pa.
- ⇒ **The automatic turn-on device is available in the special accessories.**
  - Model ALV 2 Item No. 79104010 230 V/50 Hz**
  - Model ALV 10 Item No. 79104020 400 V/230 V/50 Hz**
- ⇒ When the machine is switched on, the suction automatically runs after a 2-3 second delay. This prevents the mains fuse from overloading.
- ⇒ When the working machine is switched off, the suction continues for a further 3-4 seconds and then switches off automatically.
- ⇒ The remaining dust will thus be extracted, as stated in the hazardous materials ordinance. This saves electricity and reduces noise. The exhaust system only runs when the work machine is in operation.
- ⇒ For industrial purposes, a dust extractor must be used for extraction.

Do not switch off or remove exhaust systems or dust extractors when the machine is running.
- ⇒ Only use the machine when it is in perfect condition, paying due attention to safety and possible hazards, in accordance with the operating instructions. In particular, correct faults which could compromise safety as soon as possible!
- ⇒ The manufacturer's safety, working and maintenance regulations, along with the measurements given in the technical data, must be observed.
- ⇒ The relevant accident prevention regulations and all other, generally recognised safety rules must be observed.
- ⇒ The machine may only be used, maintained and repaired by persons who are familiar with it and who have been trained in the possible dangers. Unauthorised changes to the machine exclude the manufacturer from liability for any resultant damages.
- ⇒ The machine may only be used with the manufacturer's original supplies and original tools.
- ⇒ Any other use apart from this is regarded as not specified and contravenes regulations. Any resulting damage is not the liability of the manufacturer; the risk is carried by the user alone.

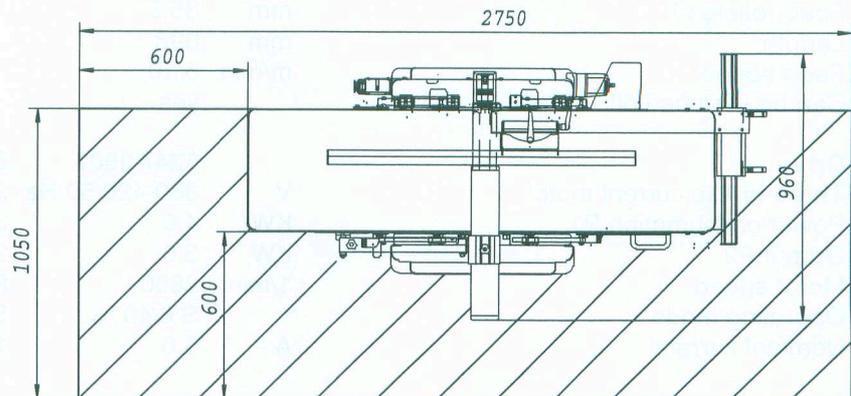
## Other risks

The machine is constructed in accordance with the latest technology and the recognised safety rules. Nevertheless, some risks can arise when working.

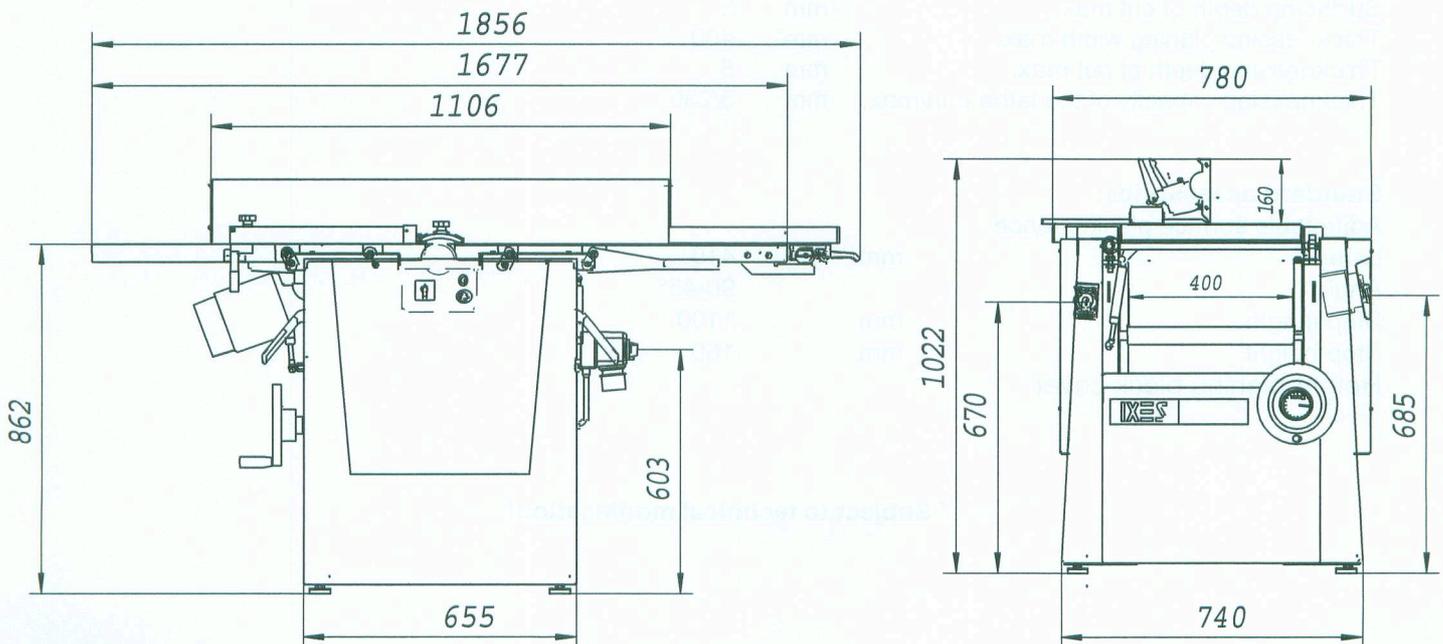
- ⇒ Danger of injury to fingers and hands from the rotating planing block when the workpiece is fed in improperly.
- ⇒ Injuries from workpieces that swing away due to improper holding or guiding, such as working without a limit stop.
- ⇒ Danger to health from sawdust or wood shavings.
- ⇒ Always wear personal safety gear such as visors and dust masks. Use an exhaust system!
- ⇒ Danger to health from sawdust or wood shavings. When working, the permissible sound level is exceeded. Always wear personal safety gear such as ear protection.
- ⇒ Beware of electrical hazard in the case of faulty electrical connections.
- ⇒ Only use carefully selected types of wood without faults such as: knots, cross breaks, surface checks. Faulty wood leads to risks when working.
- ⇒ In addition, despite proceeding properly, other less obvious risks can arise.
- ⇒ Other risks can be minimised when the **“Safety notices”** and the **“Specified usage”**, as well as the operating instructions are all observed completely.

## Scope of delivery

Planing machine IXES Plana 7  
 Surface planing fence  
 Planing block guard  
 Combined suction hood  
 Torx wrench  
 Operating instructions



## Technical data



## Documentation

### Dimensions:

Total length	mm	1856
Total width	mm	780
Total height	mm	1022
Table height	mm	862
Surface plate length	mm	820
Surface plate width	mm	442
Thickening table length	mm	645
Thickening table width	mm	410
Weight	kg	325

### Planing block:

Planing block $\varnothing$	mm	78
Knife cutting circle $\varnothing$	mm	80
Material of the planing block		C45
Rotational speed max.	1/min	5400
Amount of planing knives	Item	3
Measurements of the planing knife	mm	3x12x410
Material of the planing knife	mm	HSS No. 3343

### Forward feed:

Feed rollers	Item	2
Surface		gummed
Feed rollers $\varnothing$	mm	35.5
Length	mm	398
Feed speed	m/min	5/10
Can be switched off		yes

### Drive:

		<b>6247 0902</b>	<b>6247 0901</b>	<b>6247 0903</b>
Three-phase current motor	V	380-420/50 Hz	220-240/50Hz	380-420/50Hz
Power consumption P1	KW	4.0	3,0	5,0
Output P2	KW	3.0	2,2	4,0
Motor speed	1/min.	2800	2800	2800
Operating mode		S 6/40 %	S6/40%	S6/40%
Nominal current	A	6.6	12,8	8,7

### Work data:

Surfacing planing width max.	mm	410
Surfacing depth of cut max.	mm	5
Thickening planing width max.	mm	400
Thickening depth of cut max.	mm	5
Thickening capacity of the lathe min/max.	mm	5/230

### Standard accessories:

Adjustable surface planing fence		
Lateral	mm	410
Angle		90-45°
Stop length	mm	1100
Stop height	mm	160
Height planing block cover		

**! Subject to technical modification!**

### Noise characteristics

The noise emission values calculated according to EN 23746 for the sound power level and EN 31202 (correction factor  $k_3$  calculated in accordance with Appendix A.2 of EN 31204) for the sound pressure level at the workplace corresponds to the basis laid for working conditions in ISO 7904 Appendix A.

Sound power level in dB (surfacing)
Idle running $L_{WA} = 95.8$ dB (A) Processing $L_{WA} = 103.2$ dB (A)
Sound pressure level at workplace in dB
Idle running $L_{pAeq} = 83.2$ dB (A) Processing $L_{pAeq} = 93.5$ dB (A)
Sound power level in dB (thicknessing)
Idle running $L_{WA} = 96.6$ dB (A) Processing $L_{WA} = 102.0$ dB (A)
Sound pressure level at workplace in dB
Idle running $L_{pAeq} = 80.8$ dB (A) Processing $L_{pAeq} = 85.9$ dB (A)

For the emission values named, there is an addition for measuring uncertainty of  $K = 4$  dB

### Values for dust emission

The dust emission values measured by the technical committee "Wood" according to the "Basics for checking the dust emission (concentration parameter) of wood processing machines" are under  $2 \text{ mg/m}^3$ . When connecting the machine to a proper, operational suction with at least  $20 \text{ m/s}$  air speed, it can be assumed that the current TRK (Guideline for Technical Concentration) limit for wood dust in Germany will not be exceeded.

### Installation

The machine is supplied ready-assembled and is thus ready for immediate operation.

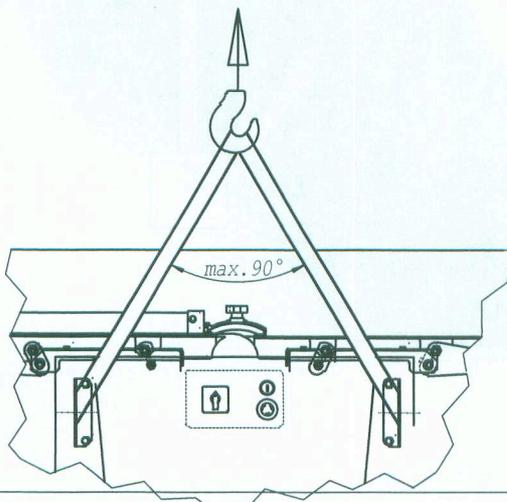
Installation tool

#### The scope of delivery includes:

1 Torx wrench 62470123 (for changing the plane knife)

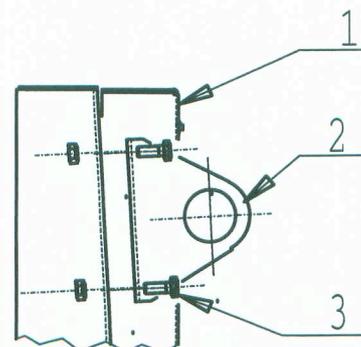
Operating instructions

#### Only lift the machine with the crane bow!



#### After setting up, remove the crane bow.

- Open the side cover 1
- Remove crane bow 2 after loosening the hexagon bolt 3.



## Documentation

### Setup and adjustment

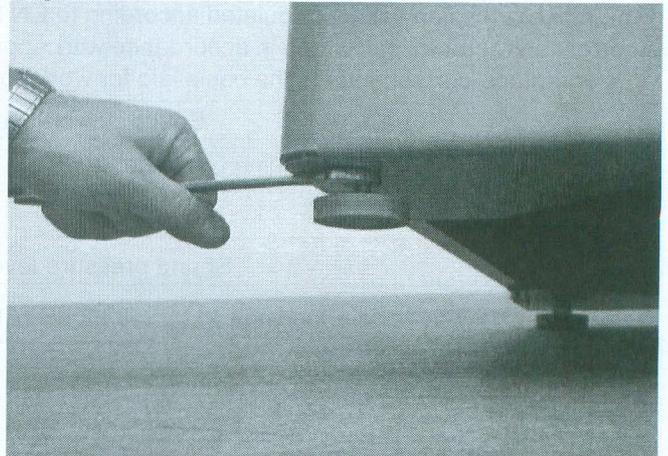
#### Fig. "A"

The machine stands on **four adjustable rubber buffers**.

Balancing out floor unevenness. Loosen the lower hexagon nuts using the wrench and screw the rubber buffers in or out as appropriate.

Tighten the hexagon nuts again(counter-clockwise).

Fig. "A"

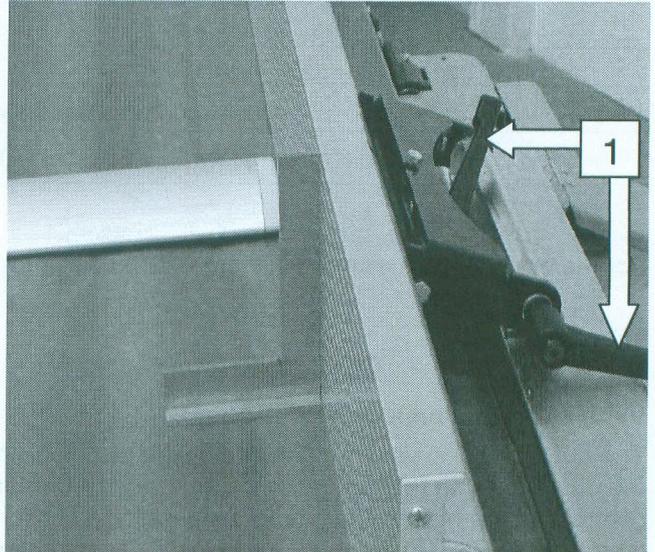


#### Surface planing fence

#### Fig. "B"

- ⇒ Setting the surface planing fence onto the machine
- ⇒ Find the 90° position with the aid of a back square
- ⇒ Pull the lock lever 1 tight.

Fig. "B"



#### Fig. "C"

Set fence screws 2 to the 90° and 45° position using a 10 span single-head wrench.

**The surface planing fence can be swung to any position between 90° - 45°, when the handles on the swinging segments are loosened.**

Set the 90° position with a back square. **After setting each angle, check the exactness of the measurement on a trial piece using a protractor.**

Fig. "C"

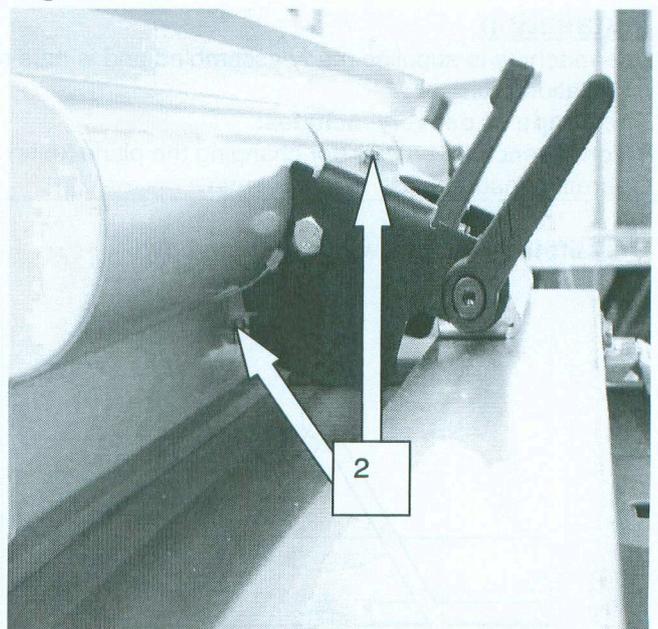


Fig. "D"

- ⇒ The clamping of the surface planing fence takes place via the two cam levers 3.
- ⇒ The surface planing fence is adjustable up to 410 mm above the plane width.

Fig. "D"

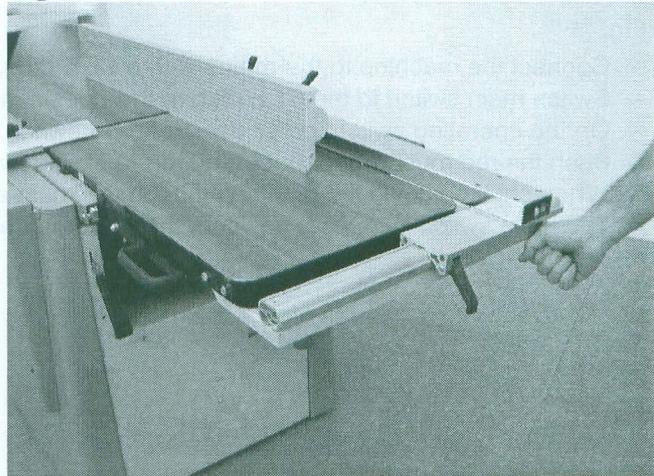


Fig. "E"

- ⇒ If there are differences, the pointer 1 can be reset by loosening the screws 2.
- ⇒ Correct the pointer, tighten the screws again.

Fig. "E"

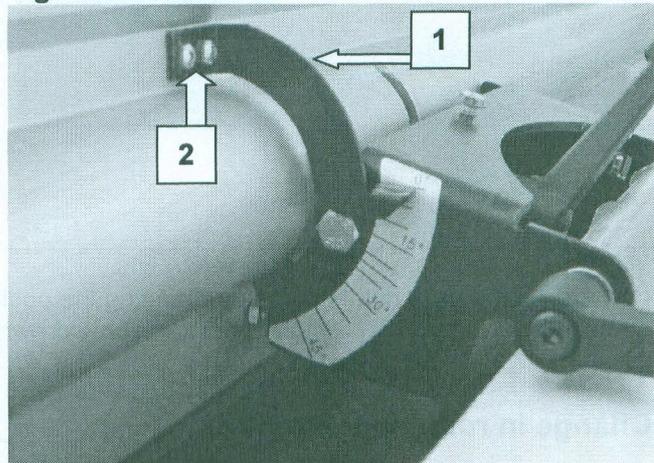
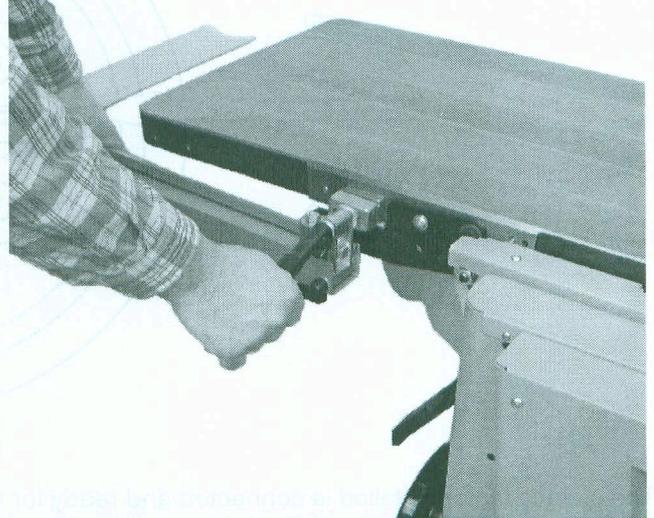


Fig. "E1"

- ⇒ The planing block guard can be turned without a tool by pulling the cam lever upwards.
- ⇒ Pull the planing block guard away, push the cam lever downwards again.

Fig. "E1"



**Caution:**  
**Never work without planing block guard while surface planing.**

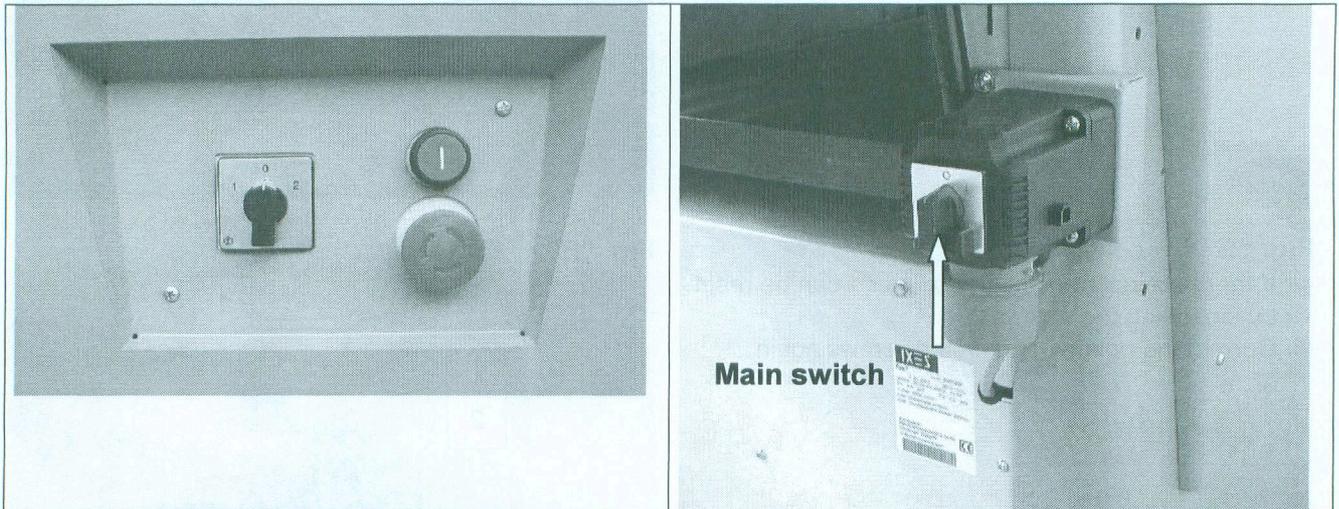
## Documentation

### Electrical connection

Fig. "F"

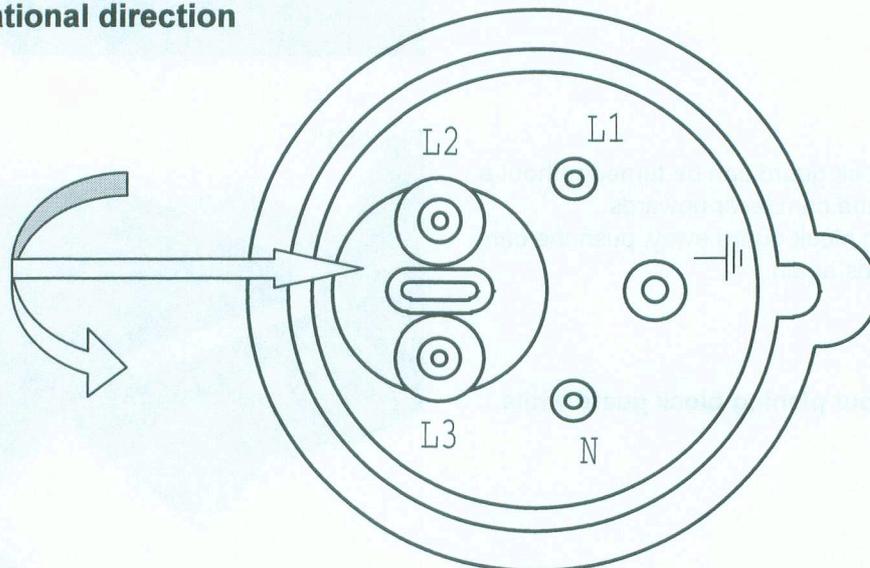
- ⇒ Connect the machine to the mains with a CEE plug, **the supply line must be protected with 16 A.**
- ⇒ Switch main switch to the CEE plug in the I position
- ⇒ On the operating switch, press the green on-switch; the planing block starts to run.
- ⇒ Push the red mushroom-shaped button to shut down, planing block is braked within 10 sec.
- ⇒ When shutting down the planing block at the main switch (CEE plug), the braking function is **ineffective!**
- ⇒ The main switch is in the 0 position, the motor is free of current.

Fig. "F"



- ⇒ When connecting to the mains or changing the position, the rotational direction must be checked and when necessary the polarity switched using a screwdriver (machine socket).

### Change in rotational direction



The electric motor installed is connected and ready for operation. The connection corresponds to the relevant **VDE and DIN regulations**. **Connection to the mains by the customer and the extension cable used must correspond to these regulations.**

## **Motor braking device**

When shutting the machine down, an automatically effective regenerative brake is safely applied. The brakes brake the driving motor of the planing block within 10 sec. The electric brake system is interrupted after max. 14 seconds. If the braking procedure lasts longer than 14 seconds, **the machine may no longer be operated**, since the brakes are defective. **It is imperative that the machine is cut off from the source of power.** Only professional electricians may be used to clear errors.

## **Operating mode / Working time**

**The electric motor is dimensioned for operating mode S 6 - 40 %.**

S 6 = Continuous operation duty type

40 % = Referring to 10 min.: 4 min. load; 6 min. disengaged

**When the motor is overloaded, it turns itself off by using a winding thermostat that is built into the motor windings. After a cooling period (of varying length), the motor can be switched on again.**



## **Damaged electrical connection cables**

Insulation damage often arises on electrical connection cables.

### **Possible causes:**

- ⇒ Pressure points, when connection cables are led through windows or door frames.
- ⇒ Kinks due to improper fastening or guides for the connection cable.
- ⇒ Cuts caused by the connection cable being driven over.
- ⇒ Insulation damage arising from cable being ripped out of the wall socket.
- ⇒ Tears due to aging of the insulation. **Such faulty electrical connection cables should no longer be used, as the damage to the isolation renders them life - t h r e a t e n i n g.**

Regularly check electrical connection cables for damage. Make sure that the cable is not connected to the mains while checking. Electrical connection cables must correspond to the relevant VDE and DIN and the local EVE regulations. Only use connection cables with the identification number H 07 RN. It is mandatory for the type designation to be printed on the connection cable.

- ⇒ Extension cables must exhibit a cross section of 1.5 square millimeters (up to 25 m length), and 2.5 square millimeters (over 25 m length).
- ⇒ The mains connection is protected with 16 A (anti-surge).

## **Three-phase current motor**

- ⇒ Supply voltage must be 380 - 420 V 50 Hz.
- ⇒ Mains connection and extension cable must have five wires = 3 P + N + SL.
- ⇒ Extension cables must have a minimum cross section of 1.5 mm<sup>2</sup>.
- ⇒ The mains connection is protected with a maximum of 16 A.
- ⇒ When connecting to the mains or changing the position, the rotational direction must be checked and the polarity switched where necessary.



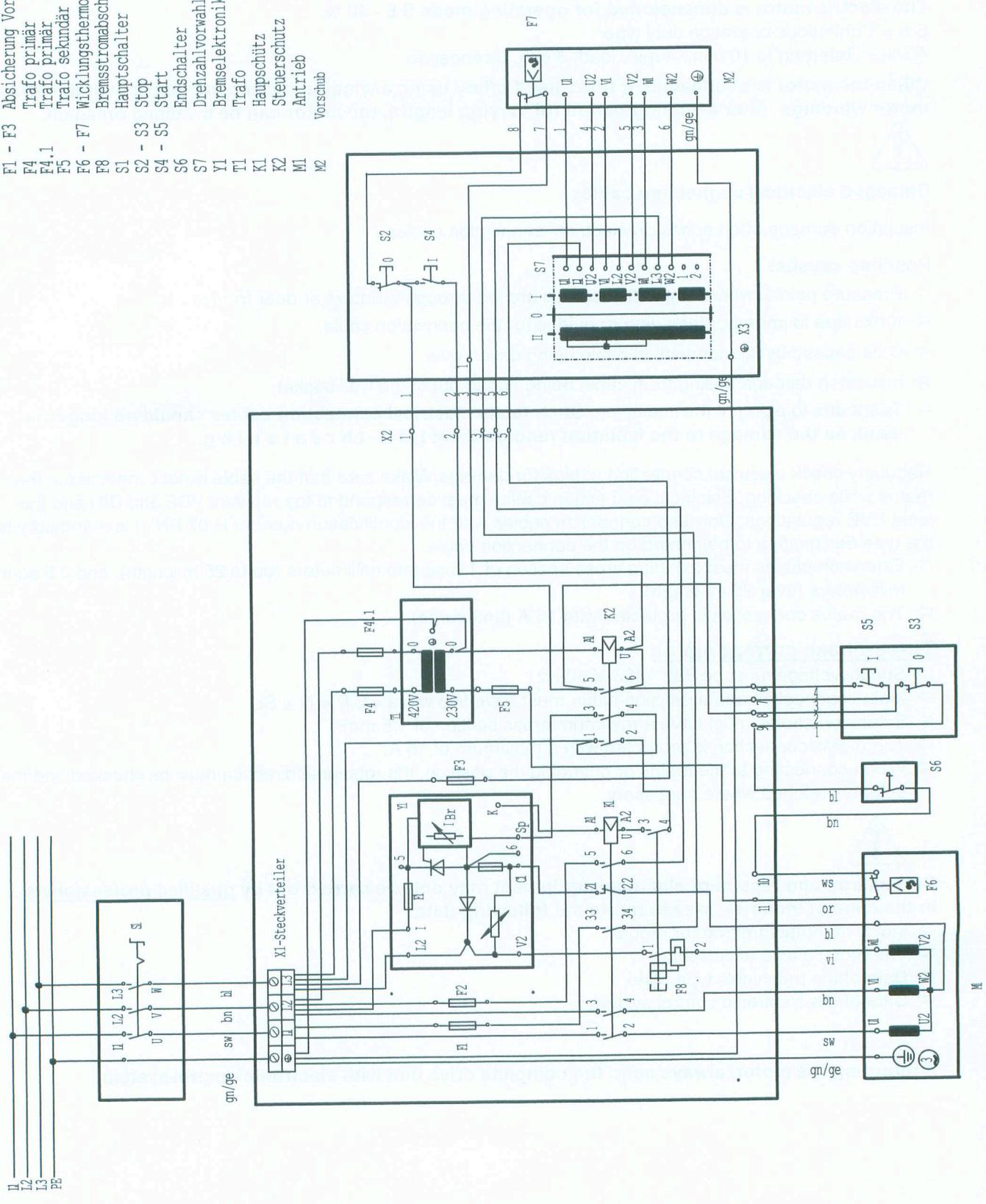
**Connection and repairs of electrical equipment may only be carried out by qualified professionals. In the case of inquiries, please quote the following data:**

- ⇒ Motor manufacturer; motor model
- ⇒ The motor's type of current
- ⇒ Data of the machine's type plate
- ⇒ Data of the electronic control system

**If returning the motor, always send the complete drive unit with electronic control system.**

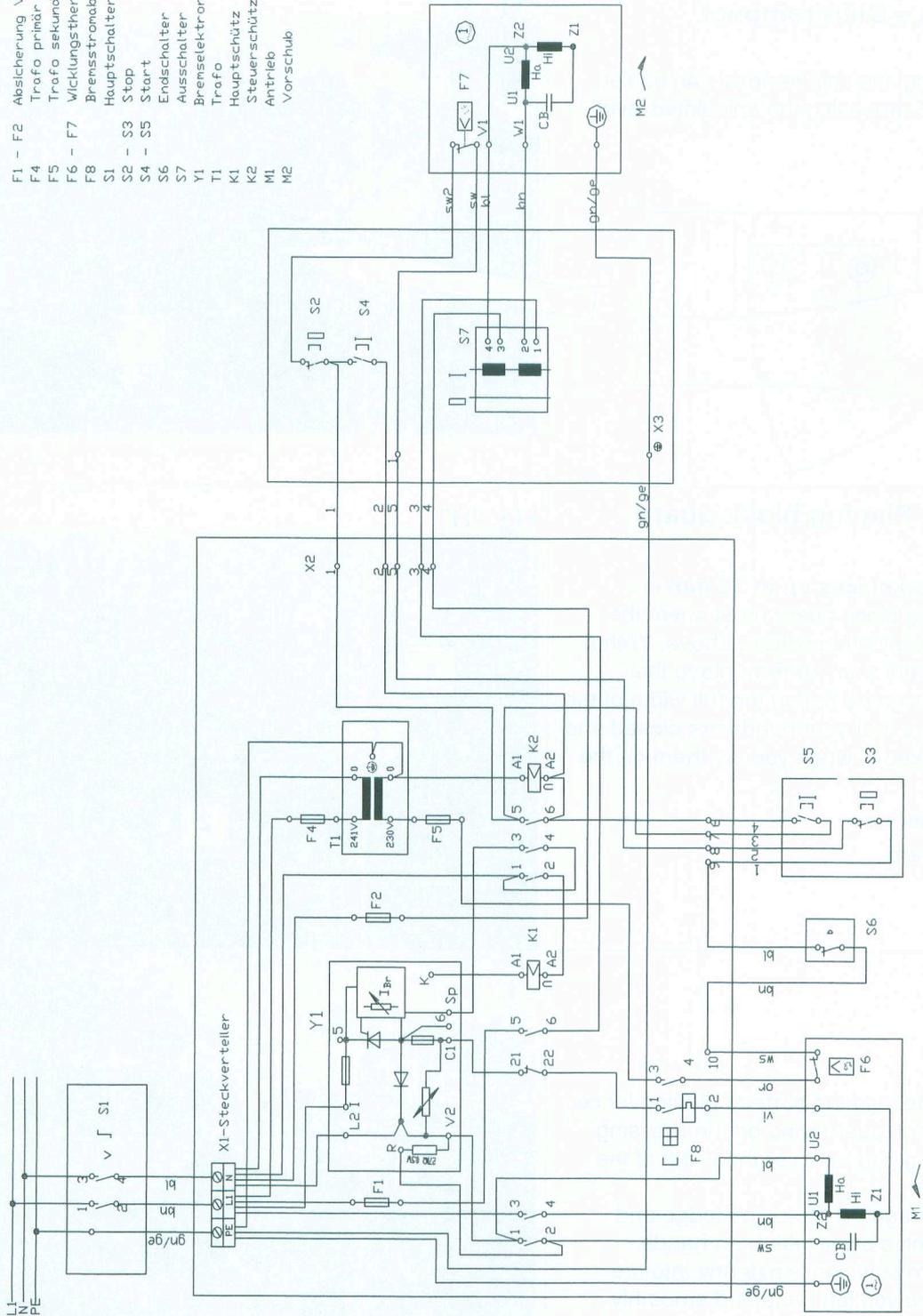
**Circuit diagram 380-420V**

- F1 - F3 Absicherung Vorschub
- F4 Trafo primär 100 mA/T
- F4.1 Trafo primär 100 mA/T
- F5 Trafo sekundär 80 mA/T
- F6 - F7 Wicklungsthermostat
- F8 Bremsstromabschaltung
- S1 Hauptschalter
- S2 - S3 Stop
- S4 - S5 Start
- S6 Endschalter
- S7 Drehzahlvorwahl Vorschub
- Y1 Bremsel Elektronik
- T1 Trafo
- K1 Hauptschutz
- K2 Steuerschutz
- M1 Antrieb
- M2 Vorschub



**Circuit diagram 220-240V**

- F1 - F2 Absicherung Vorschub
- F4 Trofo primär 125 mA
- F5 Trofo sekundär 80 mA
- F6 - F7 Wicklungsthermostat
- F8 Brennstromabschaltung
- S1 Hauptschalter
- S2 - S3 Stop
- S4 - S5 Start
- S6 Endschalter
- S7 Ausschalter
- Y1 Brennelektronik
- T1 Trafo
- K1 Hauptschutz
- K2 Steuerschutz
- M1 Antrieb
- M2 Vorschub



## Initial operation

- ⇒ Before initial operation, observe the following safety notes.
- ⇒ **The complete set of protective and auxiliary devices must be installed.**
- ⇒ Equipping, adjusting, measuring and cleaning work may only be carried out with the motor switched off. Pull the mains plug or switch the main switch to the 0 position, and wait for the rotating tool to come to a standstill.

### Surface planing – Chip removal

Fig. "G"

During surface planing, the chip removal can be set **anywhere** from  $0 \div 5$  mm using the articulated lever 1.

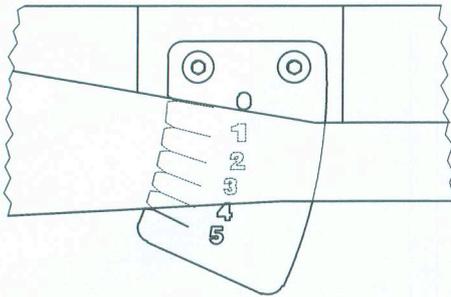
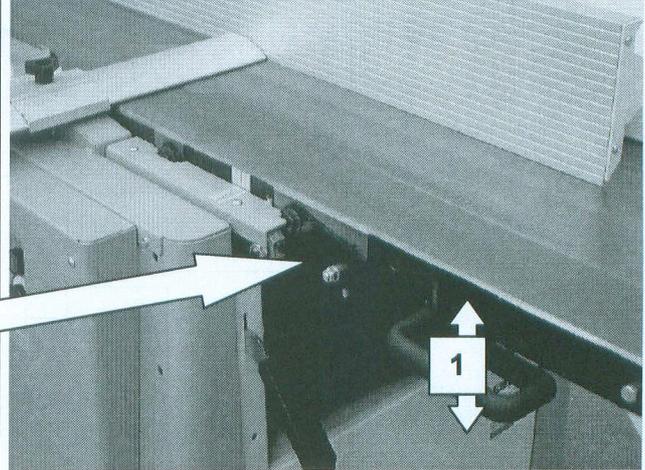


Fig. "G"



### Surface plane – Planing block guard

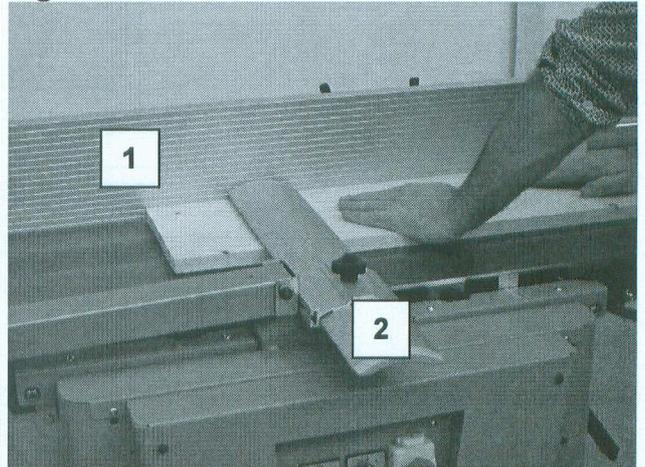
Fig. "H"

**When surfacing workpieces up to 75 mm in thickness, the planing block guard must cover the workpiece and the planing block from above. With a workpiece width greater than 75 mm, place the planing block guard's guard rail on the full width of the workpiece. Make sure that your hands are closed and your thumbs are tucked in when you lay them on the workpiece.**

**1 Surface planing fence**

**2 Planing block guard**

Fig. "H"



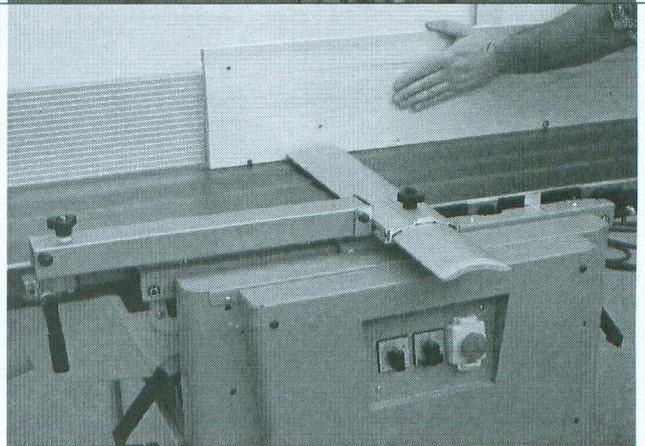
### Jointing

Fig. "J"

For this working cycle, use the surface planing fence, leave the planing block guard lying on the dressing table, and place the guard rail over the width of the workpiece.

Press the workpiece against the plane ledge and guide it over the planing block with both hands.

As soon as the board sufficiently extends into the collection table, place your left hand and smoothly push it over the knife block.

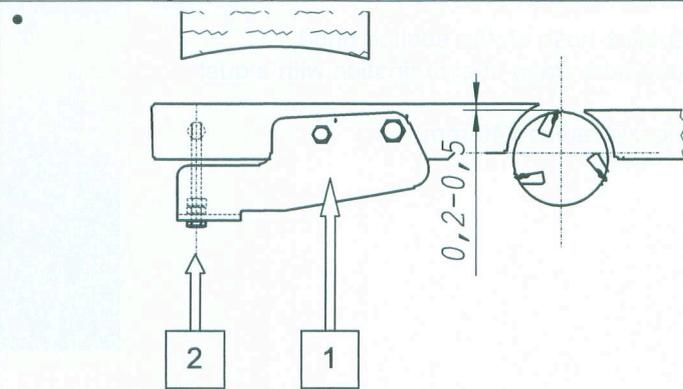


## Adjusting the joint

The workpiece length was preset at the factory at two meters, creating a hollow joint of about 0.2 - 0.5 mm. For special demands (prominent convex, concave or straight joints), the collection table must be adjusted.

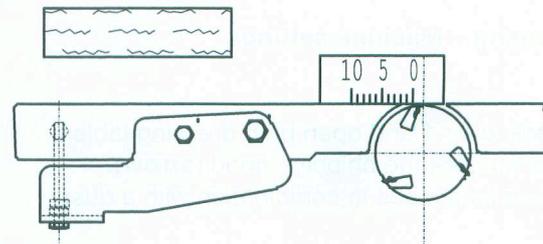
### Prominent concave joints

Dressing table above the knife cutting circle  
Loosen binding screw 1  
Using adjusting screw 2, adjust the table upwards (max. 0.5 mm)  
Tighten the binding screw 1 again



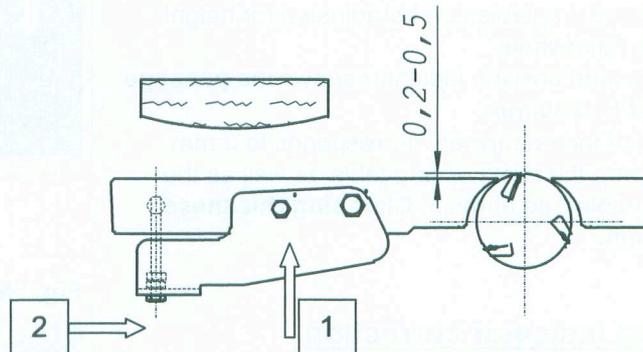
### Straight joints

Dressing table on the same level with the knife cutting circle  
Put a gauge onto the dressing table and turn the planing block with your hand. The planing block should pull the gauge along for 2 - 3 mm.



### Prominent convex joints

Dressing table under the knife cutting circle  
Loosen binding screw 1  
Using adjusting screw 2, adjust the table downwards (max. 0.5 mm)  
Tighten the binding screw 1 again



## Documentation

### Surface planing – Chipping ejection

#### Fig. "K"

When surface planing, both dressing tables must be locked.

Put the suction hose on the suction hood.

Suction can take place in combination with a dust extractor.

Suction nozzle radius 140 mm

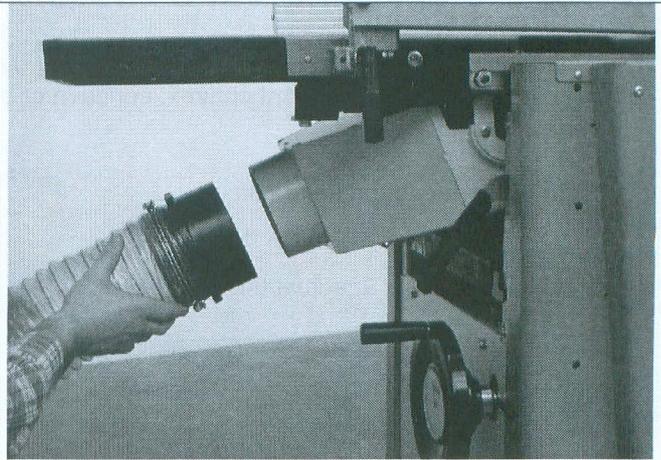


Fig. "L"

### Thickening – Machine settings

#### Fig. "L"

Lift the lock lever 1 and open both dressing tables.

Swing up and lock the chipping hood (arrow).

Suction can take place in combination with a dust extractor.

### Thickening – Table adjustments

The thickening table can be adjusted for height using the handwheel.

The integrated position indicator shows the **passage height of 5 - 230 mm**.

One turn of the handwheel corresponds to 2 mm  
Always keep the thickening table as well as the dressing table free of resin. **Clamping thickness max. 5 mm.**

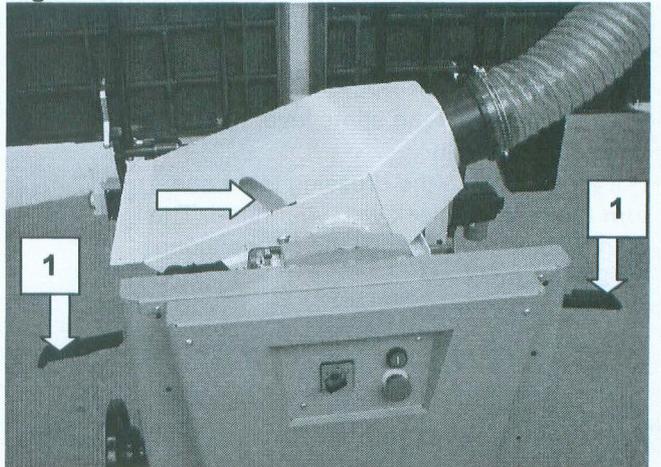


Fig. "M"

### Position indicator correction

#### Fig. "M"

The thickness dial can be corrected for inexact measurements.

#### Example:

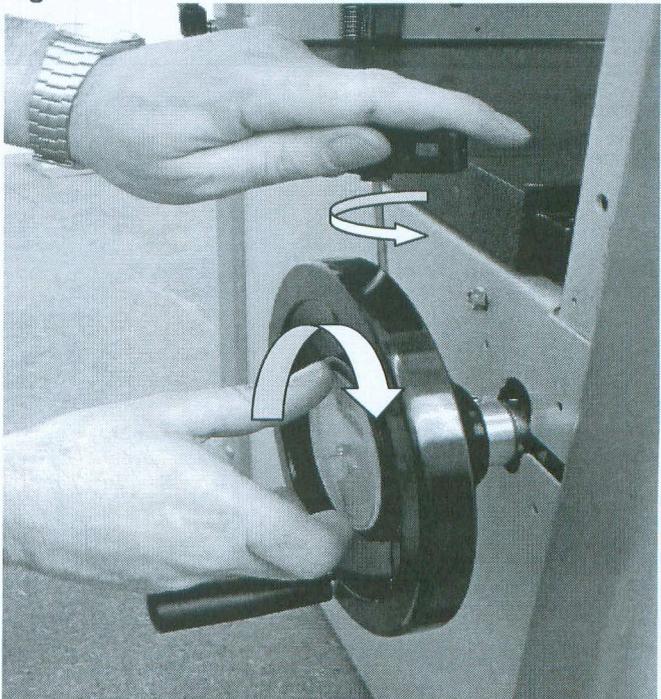
The passage height is set to **100 mm**.

The processed workpiece shows a measurement of 101 mm.

Loosen the fastening screw on the side of the handwheel.

Turn and set the dial on the position indicator to 101 mm.

Tighten the fastening screw on the handwheel again.



## Thickening – Feed

Fig. “N”

The feed can be switched on and off with the cam controller.

**0 = Off**

**1 = ON 5 m/min**

**2 = ON 10 m/min**

- ⇒ First switch the feed on and then put the workpiece on.
- ⇒ The feed motor only runs when the planing block is running.

### Setting the feed speed

- ⇒ When working with workpieces up to approx. 100 mm wide, a max. chip removal of 5 mm can be planed with level 2.
- ⇒ With wide workpieces, level 1 should be set with max. chip removal in order to achieve a clean workpiece surface.
- ⇒ The feed speed can be changed even when under load.

### Maintenance



Perform maintenance, repair and cleaning work as well as service malfunctions only when the machine is switched off!

**Switch the main switch to the 0 position or pull the plug!**

- ⇒ **The complete protective and safety devices must be remounted following repair and maintenance work.**
- Always keep the thickening table as well as the dressing table free of resin.** Pharmol-HEK concentrated resin remover Item No. 6100 9700 is available at your IXES dealer.
- ⇒ The planing block's bearing and the workpiece spindle are provided with permanent lubrication. When the machine is new, warming may occur due to the design, but will disappear after a while.

Fig. “O”

- ⇒ Regularly clean the feed rollers.
- ⇒ Occasionally oil the plain bearings of the feed rollers.
- ⇒ Occasionally oil the adjusting spindle of the thickening table, its bearings as well as the jointed driving shaft.
- ⇒ Check chain tension. If needed, regulate the tension and oil. When regulating the tension of the thickening table's chain, be aware of the parallelism to the thickening table.

Fig. “N”

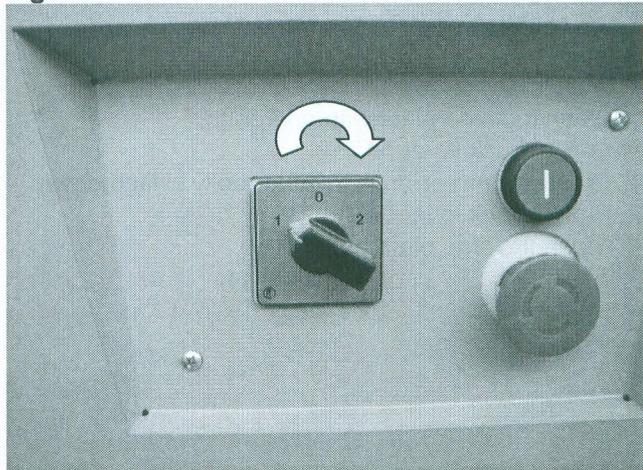
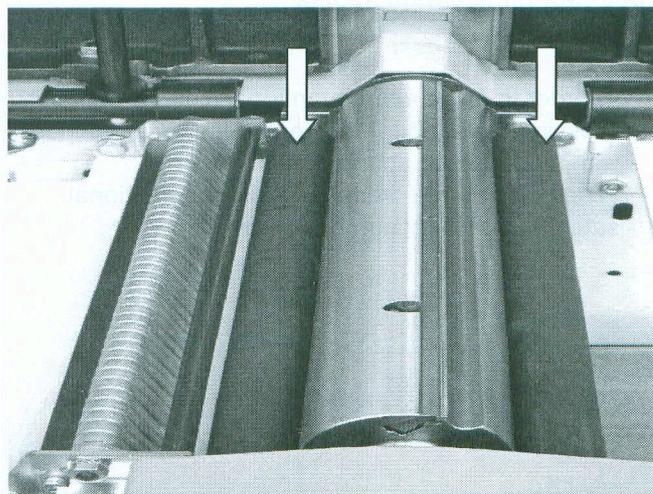
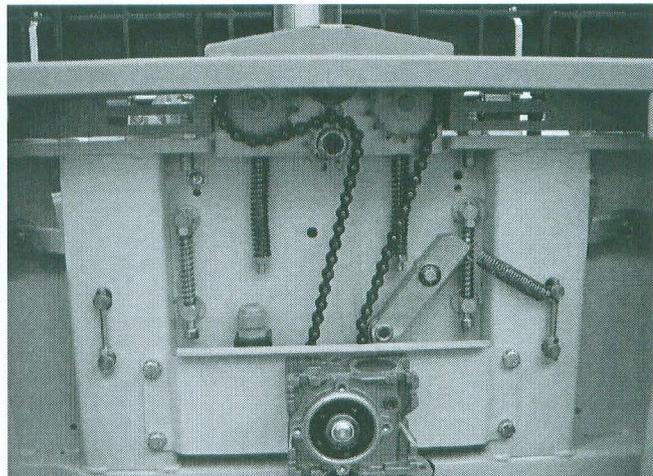


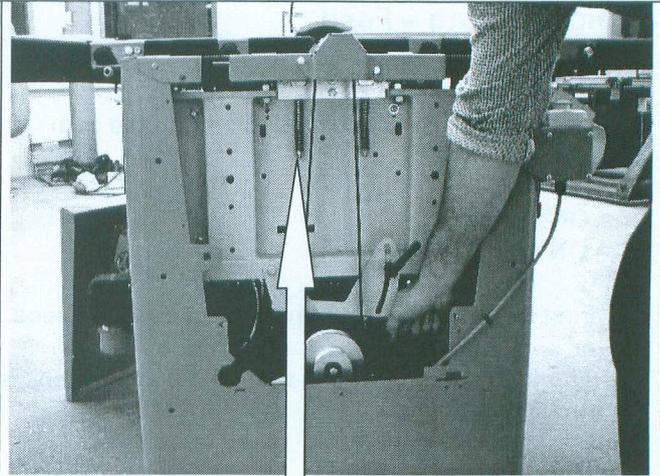
Fig. “O”



### V belt tension

#### Fig. "P"

- ⇒ Open the side plate with a wrench
- ⇒ Loosen lock lever "A"
- ⇒ Press the motor-driven rocker dolly switch down
- ⇒ Pull the lock lever "A"
- ⇒ Close the side plate again

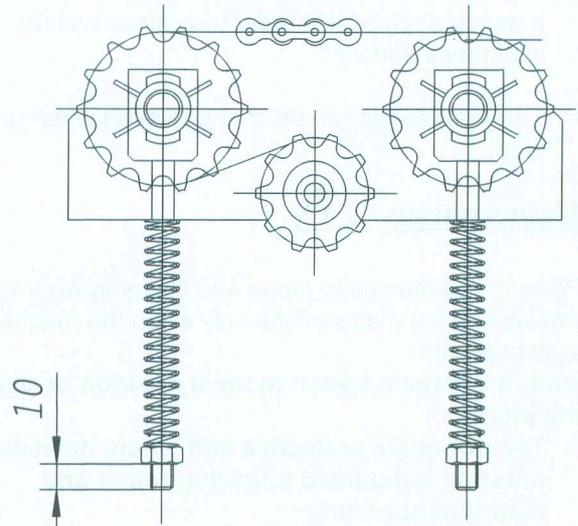


### Feed roller settings

#### Fig. "R"

In order to guarantee smooth feeding, the compression springs must be adjusted to the measurements opposite.

Abb. "R"

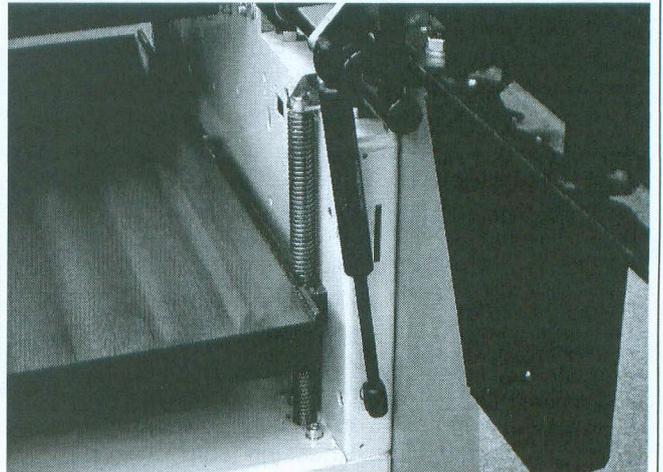


### Dressing table safety device

#### Fig. "S"

- ⇒ In order to avoid an unintentional closure of the dressing table, both dressing tables are equipped with a pneumatic spring action.
- ⇒ When closing the dressing table, no additional safety device needs to be removed.

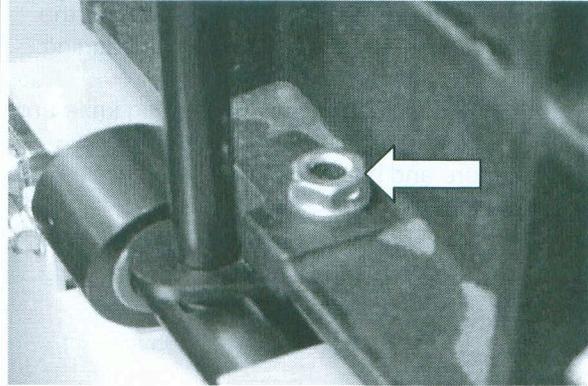
Abb. "S"



**Dressing table****Fig. "T"**

During surface planing, the chip removal can be set anywhere from 0 – 5 mm using the articulated lever.

If the dressing table moves while work is in process, an accurately measured chip removal will not be possible. In this case, the four hexagon bolts must be tightened, so that the dressing table once again holds the adjusted chip removal.

**Fig. "T"****Planing knife****Caution!**

The planing knives used are disposable knives and therefore can not be resharpened, but only used once.

The planing knives supplied by the factory are sharpened, ready for operation and correctly adjusted. **Only well sharpened and exactly adjusted planing knives can guarantee safe work**

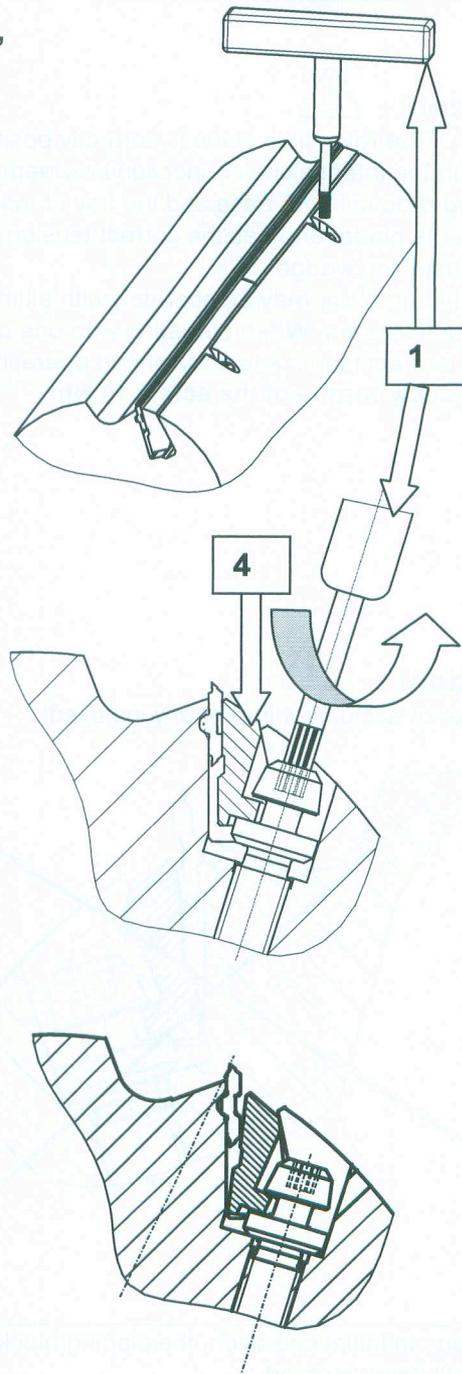
**We recommend that you:**

Use only **original "IXES"** planing knives. Replacement knives with the Item. No. 6247 0702 are available at your dealer.

**Changing planing knives****Fig. "P"**

For every planing knife loosen both tensioning wedges 4) with the wrench 1) until you have reached the noticeable stop. Loosen the screw by turning counterclockwise, the screw moves down (**Attention: left-handed thread**)

The tensioning wedge moves downward as the screw is loosened, the planing knife becomes free.

**Fig. "P"**

## Documentation

The planing knife can only be completely removed and replaced again.

When installing the planing knife, be aware that the planing knives are flush to the side with the planing block.

Every time the knife is changed, the planing knife and the V ledge should be cleaned.

Caution! Fingers and hands can be injured while changing the knives.

### Caution!



Check if the reversible blade is correctly positioned through the interlocking connection between the guiding groove in the base and the key of the reversible blade, and has the correct tension through the tensioning wedge.

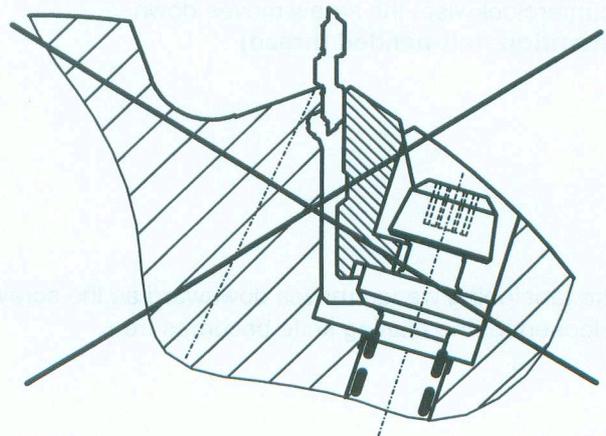
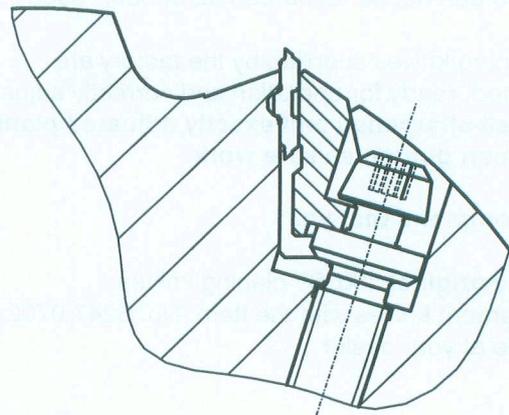
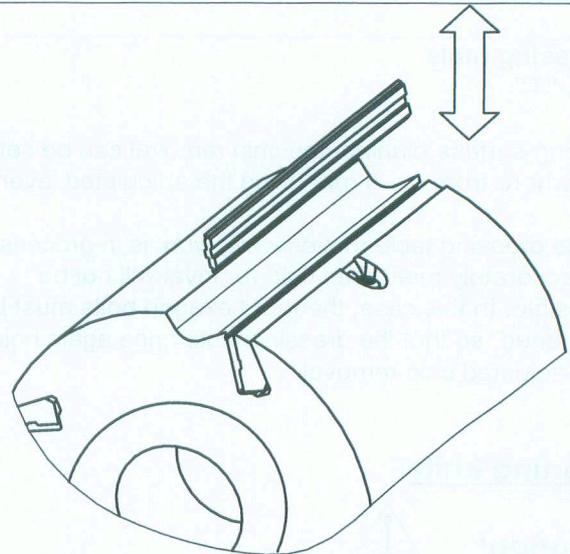
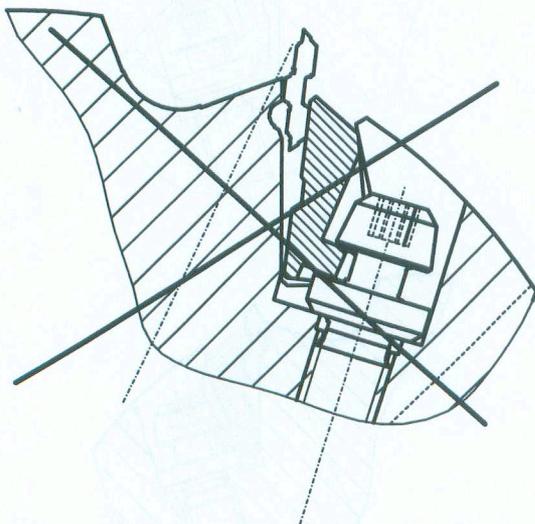
The planing block may be operated with all three reversible blades. When operating with one or two, beware of accidents and unbalanced operations.

**Breakaway torque of the screw 10 Nm.**

### Caution!



Danger of accident if improperly installed!



Previous to initial operation, the planing block must be checked, if the above mentioned instructions were correctly implemented.

Before turning on the machine, make sure you are familiar with all general safety measures.

**Fault finding**

When correcting faults, switch off the machine. Pull out the plug.

**Irregular and failed transportation during thickening**

Cause	Remedial action
Thickening table has resin on it especially when machining moist and resinous kinds of wood.	Regularly clean the thickening table. Treat the thickening table with Pharmol dry - lubricating spray

**Workpiece not correctly cut when surface planing**

Cause	Remedial action
Blunt planing knife	Turn the planing knife, or replace it with a new planing knife. See operating instructions "Adjusting planing knife"

**Workpiece not even (bulged or hollow) when surfacing**

Cause	Remedial action
Dressing tables are not standing parallel to one another or are not exactly in the cutting circle of the planing block.	Reset the feed table parallel to the collection table. Lay a long, straight ruler over both table tops for setup. Adjust the collection table, see <b>Adjusting the joint</b> .

**The machine does not run**

Cause	Remedial action
Planing block's motor does not run	⇒ Switch on the main switch ⇒ Check the operating network's <i>feed line</i> ⇒ Check the fuses (included 16 A) ⇒ Close the suction hood or dressing table correctly so that the limit switch is switched on
Feed motor does not run	⇒ Switch on the machine ⇒ Check the fine-wire fuses 10 A in the timing gear case within the machine

**Planing block does not brake when switching off**

Cause	Remedial action
Fine-wire fuse on the brake plate is defective	⇒ Check the fine-wire fuses on the brake plate 10 A in the timing gear case within the machine
Brake plate is defective	⇒ Replace the brake plate

Repairs of electrical equipment may only be carried out by **qualified professionals**.

**Special accessories****Order number:**

⇒ Attachment module for slot-boring attachment	6247 0701
⇒ HS planing knife (1 set = 3 pieces)	6247 0702
⇒ Wheel set with brackets	6247 0703
⇒ HW planing knife	6247 0704
⇒ Attachment for small workpieces	6247 0705
⇒ Slot-boring attachment Lbe 16	6331 0000
⇒ Slot-boring replacement	6330 4000





