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HOLZMANN FS 200SF

DEUTSCH

ENGLISH

Revision 1 / 13.10.10

ENGLISH

Dear Customer!

This manual contains Information and important instructions for the installation and correct use of the milling machine FS 200SF.

This manual is part of the machine and may not be stored separately from the machine. Save it for later reference and if you let other persons use the machine, add this instruction to the ma-chine.

Please read and obey the security instructions!

Before first use read this manual carefully. It eases the correct use of the machine and prevents misunderstanding and damages of machine and the user's health.

Due to constant advancements in product design and construction pictures and content may di-verse slightly. However, if you discover any errors, inform us please with the product feedback form.
Technical specifications are subject to changes!

DEUTSCH

Sehr geehrter Kunde!

Diese Bedienungsanleitung enthält Informationen und wichtige Hinweise zur Inbetriebnahme und Handhabung der Tischfräsmaschine FS 200SF.

Die Bedienungsanleitung ist Bestandteil der Maschine und darf nicht entfernt werden. Bewahren Sie sie für spätere Zwecke auf und legen Sie diese Anleitung der Maschine bei, wenn sie an Dritte weitergegeben wird!

Bitte beachten Sie die Sicherheitshinweise!

Lesen Sie vor Inbetriebnahme diese Anleitung aufmerksam durch. Der sachgemäße Umgang wird Ihnen dadurch erleichtert, Missverständnissen und etwaigen Schäden wird vorgebeugt. Halten Sie sich an die Warn- und Sicherheitshinweise. Missachtung kann zu ernsten Verletzungen führen.

Durch die ständige Weiterentwicklung unserer Produkte können Abbildungen und Inhalte geringfügig abweichen. Sollten Sie jedoch Fehler feststellen, informieren Sie uns bitte über E-Mail oder Fax mit Produktinformationsformular am Ende dieser Anleitung.
Technische Änderungen und Irrtümer vorbehalten!

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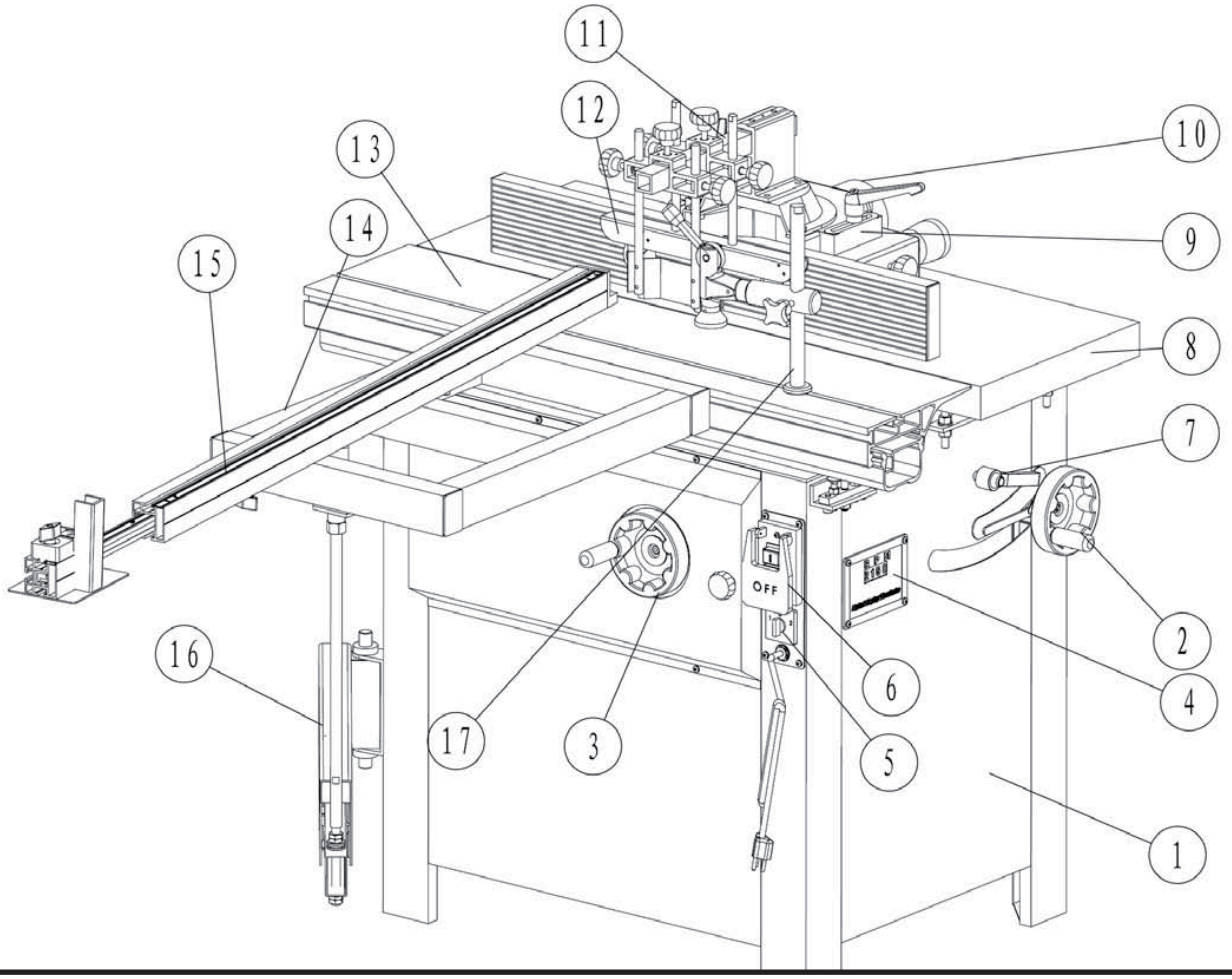

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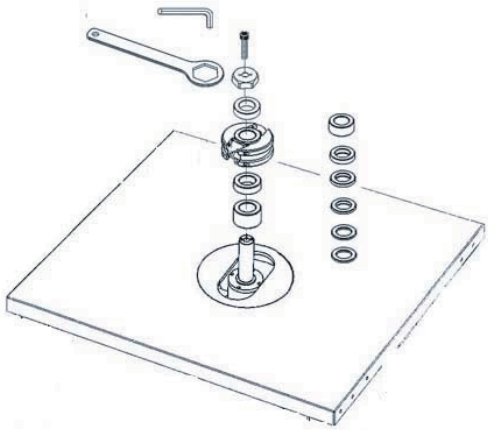

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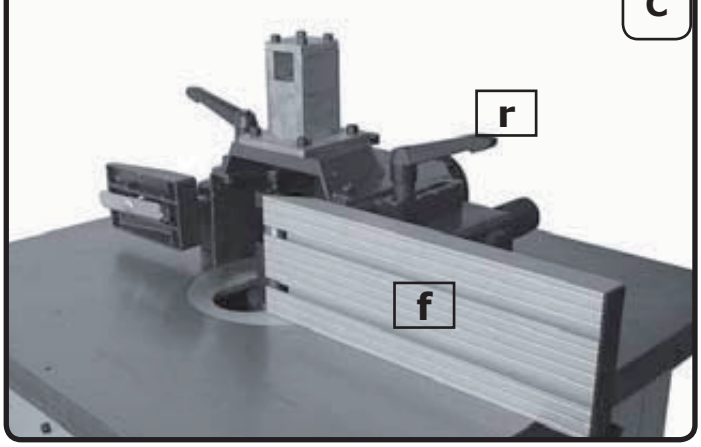

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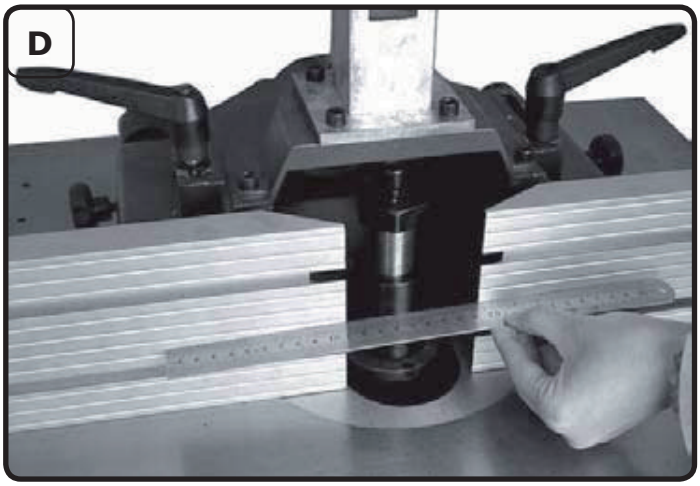

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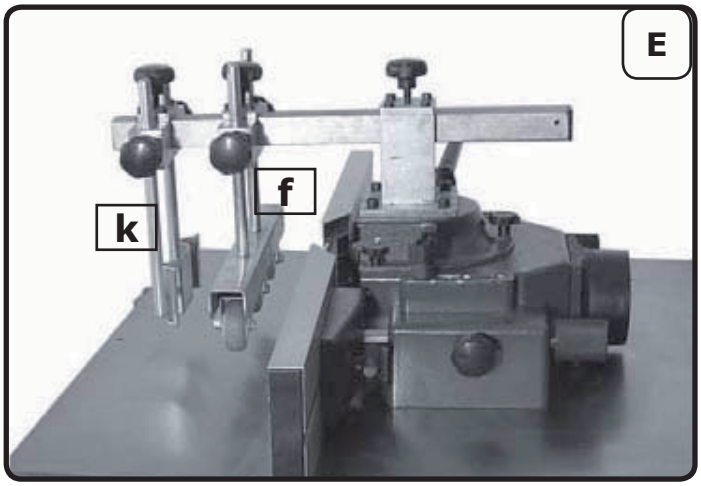

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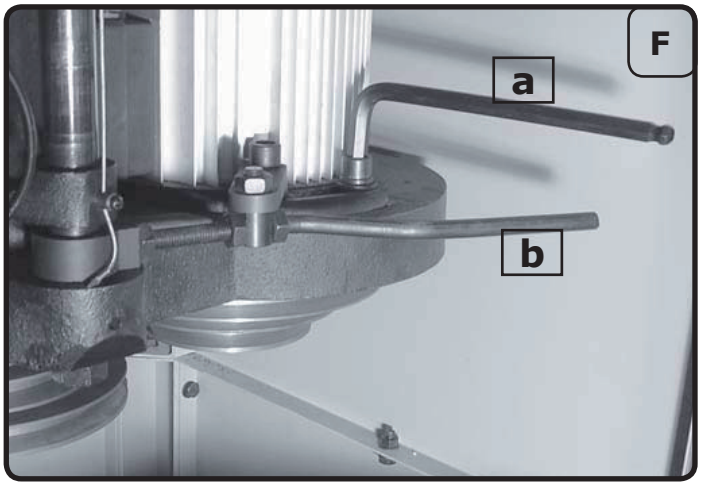
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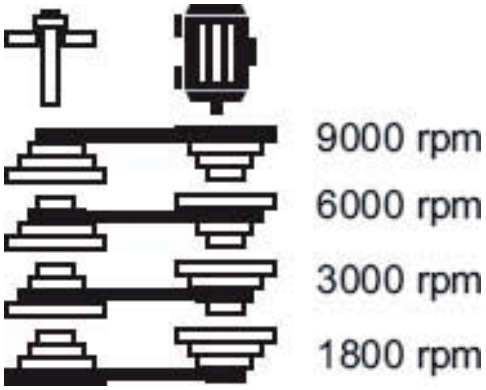
9000 rpm
6000 rpm
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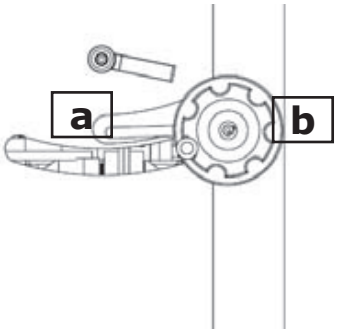
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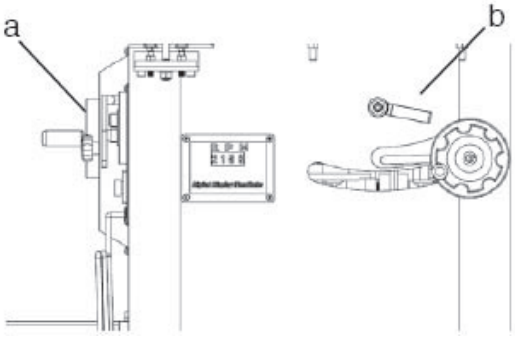
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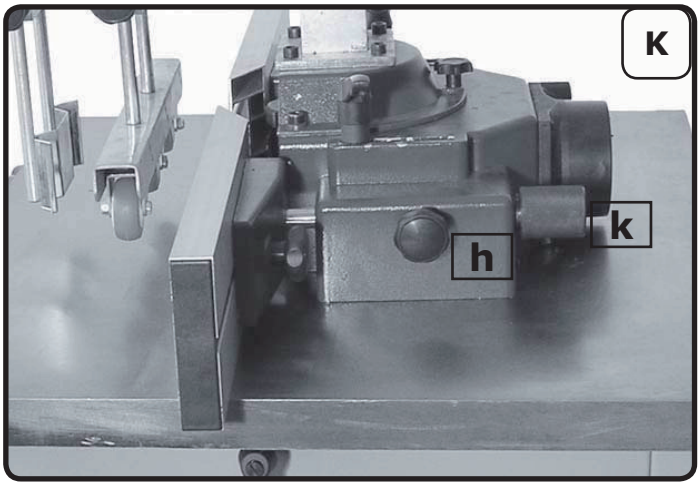
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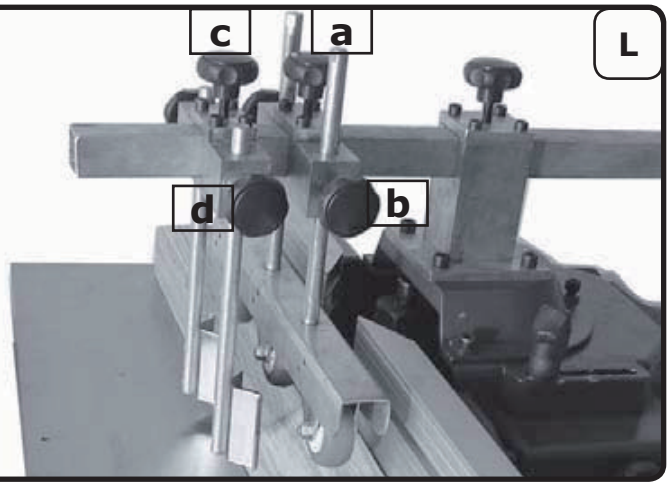
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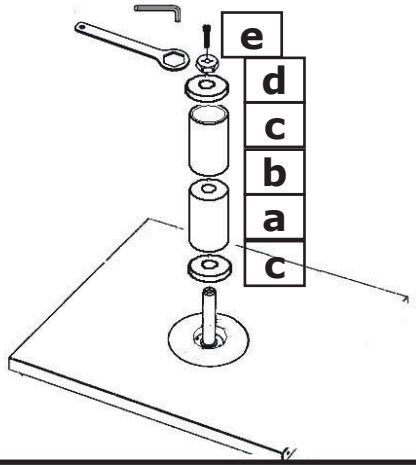
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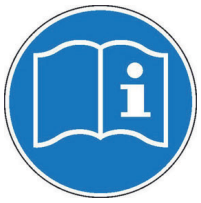
1. SAFETY RULES

READ THE MANUAL



Read and understand the owner's manual and labels affixed to the machine. Learn its application and limitations as well as the specific potential hazards
peculiar to it.

AVOID DANGEROUS CONDITIONS

Keep working area and the ground clean and free of oil and other materials!
Assure that the working area is sufficiently lighted!
Don't use the machine outside!
The use of the machine is forbidden if you are tired, not concentrated as well if you are under the influence of medicaments, alcohol and other drugs. Reduce distraction sources in the working area.
BEWARE: Routine leads to insufficient attention.

OPERATOR

The machine shall be used only by trained persons wiht an age of at least 18 years.
Non authorized personnel, especially children, shall be kept away from the machine! Make your workshop childproof.

CLOTHING

When working with the machine, don't wear loose clothing, long hair openly or loose jewellery like necklaces etc. Loose objects might be catched by rotating parts and cause serious injuries.

SAFETY EQUIPMENT

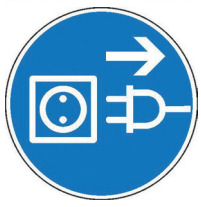
Use proper safety clothing and devices when operating the machine (safety glasses, ear protectors)!

WOOD DUST HAZARD

Never use the machine without an adequate connection to a dust collecting system. When working with treated materials, wear additionally a breathing mask.
Wood dust might contain toxic chemical ingredients and harm your respiratory system.

ELECTRIC CONNECTION

Assure yourself that your feeding current complies with the requirements of the motor - check the typeplate.
Electric checks and the electric installation of the machine may only be performed by a qualified electrician.
DO NOT touch leading machine parts.



Prior to any Cleaning, Check, maintenance or tool change shut the machine of and disconnect it from the power supply in order to prevent unintended start up of the machine.

NEVER FORCE YOUR MACHINE

It will do a better job if used at its designed output rate.
Forcing your machine shortens it`s lifespan, may cause machine defects and poses a security risk.

DO NOT OVERREACH

Keep proper footing and balance at all times.

SECURE SMALL WORKPIECES

When processing small workpieces, fix them with a suitable device like a vice, downholder, to avoid accidents.
Do not fix or feed small workpieces by hand.
Keep your hands away from dangerous area, allways guide the workpiece or tool securely.

MAINTAIN TOOLS WITH CARE

Assure yourself to keep your working tools always sharp and in best working condition.
Defect or blunt tools pose a security risk.

MAINTAIN SAFETY GUARDS, COMPONENTS AND SIGNS

Assure yourself, that all safety guards and safety devices of your machine are working in best condition. Damaged Safety guards have to be repaired before using the machine again.
Check the function of the machines Safety components like Emergency OFF Buttons and Disconnectors in regular intervals.
Defect Safety components have to be replaced immediately.
Check the condition of the Safety signs and operation rule plates on your machine. Replace missing or non-readable ones.

NEVER LEAVE MACHINE RUNNING UNATTENDED

Before leaving the machine, shut it off and wait until the motor and all rotating parts stop.

REMOVE UNUSED TOOLS, KEYS, WRENCES

Form a habit to check that there are no tools, keys, wrenches ... on the machine/tool before you start the machine.

Remove all accessories and tools from the machine before you switch it on.

SPINDLE MOULDER SAFETY RULES

When installing a new cutter, keep the unused segment of the cutter below the table.

Adjust the guides as near as possible to the cutter

After installing a new cutter, always rotate the spindle - with the machine being unplugged - by hand in order to **check that the cutter runs freely** and does not touch any machine part.

Always ensure that the cutter, the fence, the spindle height and tilt and all other adjustable components are fixed and tightened properly before operation.

Do not forget to unblock the spindle after installing a new cutter.

Use only cutters that are certified and comply with the machines technical requirements like max. diameter, spindle diameter and especially check whether the cutter is designed for the spindle rotation speed of the milling machine.

Always feed the work towards the cutter in the direction opposite of the cutter rotation.
Your hands must not come nearer than 12 inches (~ 30cm) to the cutters. Never reach directly across or over the cutters. Never reach behind the cutter to grap the workpiece.

Beware of material kickbacks! The danger of kickbacks is increased when: the workpiece has knots, holes or foreign objects in it. Warped or uneven workpieces should be planed before shaping or profiling them with the spindle moulder.
Never force a workpiece through the shaper when feeling resistance - high danger of kickback! Let the cutters do the work and reduce the feeding speed.
Keep your cutters evenly sharp. Blunt or uneven cutters increase kickback probability dramatically.

Never attempt to remove too much material in one pass. You will enjoy better working results and a higher safety level if you split the work into multiple passes.

WORKPLACE REQUIREMENTS

The workplace must have:

sufficient lighting conditions to prevent shadows or eye strain.

access to a suitable dust collecting system!

a clean, level underground that is vibration resistent!

enough place around the machine for safe handling and feeding of the material.

A proper, compatible electric supply circuit.

Humidity: max. 90% for max. 25°C
max. 70% for max. 40°C
height above sea level: max. 1000m

Do not use the machine outdoors.
Do not use the machine in workplaces with explosion and fire hazard.

RESIDUAL RISKS

The work with a spindle moulder always contains a certain risk that can never be eliminated entirely. This is a non complete shortlist indicating some of the most dangerous remaining residual risks:

Risk of personal injury due to workpiece kickback.
Risk of injury through rotating cutterheads.
Risk of electrocution when touching leading machine components.

You can minimize these residual risks by following all security, maintenance and operation rules.

INAPPROPRIATE MACHINE USAGE

Any use that does not comply with the security rules, workplace requirements, maintenance guidelines or operation rules described in this manual.

HOLZMANN Maschinen cannot be made liable for any damages to machine and person being a direct or indirect consequence of inproper use of the machine.

2. MACHINE SPECIFICATION

The FS 200SF is a High Quality spindle moulder for the sophisticated private user or as well for professional workshops requiring the machine for processing small to middle workpieces in assembly production mode.

MACHINE DESCRIPTION

1. Machine frame
2. Spindle height adjustment
3. Spindle tilt adjustment
4. Spindle speed indicator
5. Reversing switch
6. Main switch
7. Spindle tilt lock
8. Table
9. Safeguard
10. Dust outlet
11. Feeder assy
12. Feed roller
13. Sliding table
14. Table extension
15. Mitre gauge
16. Extension ruler
17. Workpiece clamp / downholder

TECHNICAL DATA

Motor power	2800W
Motor protection	Thermal links
Table size	1000x360mm
Sliding table	1000x250mm
Table height	900mm
Spindle speeds	1800/3000/ 6000/9000 rpm
Spindle diameter	30mm
Spindle travel	100
spindle tilt (back)	-5° - 45°
table opening	200mm
max. tool Ø	180mm
dust port Ø	100mm

3. ASSEMBLY

The machine is shipped partly disassembled. When you unpack the machine check it for:

Transport damages

Please report transport damages immediately to the forwarding company that delivered the machine to you, filing a freight claim.

Hidden Transport damages shall be reported immediately after discovering it, but latest 48h after machine delivery.

When unpacking check further the delivery content:

Spindle Moulder Machine Housing Assembly
Sliding table
Hardware bag
Safeguard assembly
Feeder assembly
Tools and Hardware

INSTALLING THE CUTTER TOOLS

! WARNING

Install tool on the Spindle as low as possible.
It should turn freely in the lowest spindle position. Make sure that the tool does not touch the table ring or fence when the spindle is being tilted into operation angle.

>> Lay the table ring flat into the table plate. The table ring, when mounted, should not stand out over the table surface, in order to allow the workpiece to be pushed smoothly over the table surface.
>> See Fig. B: Position the moulding tool with the spindle ring onto the spindle and secure the lock flange with Allen bolt M12x25.
>> Adjust the moulding tool height on the shaft, using one/several spindle rings.
The spindle rings have following thicknesses:
30,25,15,10,5,2 and 1mm

INSTALLING THE SAFEGUARD

>> Place the safeguard over the threaded holes onto the table.

See Fig. C:

>> Install the ratchet lever (r) M8x150 with a 8mm large washer into the safeguard (s) and thread the ratchet lever clockwise to secure the table.
>> Slide the fence (f) onto the fence carriage and secure it.
>> See Fig. D: To align the fence, adjust both fences so that they are in perfect alignment, control the alignment with a straightedge.

INSTALLING THE FEEDER ASSY

>> See. Fig. E: Insert the feeder arm into the feeder base and secure it with a startype screw M8x25.
>> Place the feeder Assy (f)and the Anti kickback assembly (k) and secure it.

CONNECTING TO DUST COLLECTION

This machine is operated indoors and has to be connected to a dust collection system of a suitable capacity:

The dust collection system has to have a minimum air flow rate of 20 meters/second.
Connection should be realized with a flexible suction hose with 100mm diameter.
The distance machine - dust collecting system should not exceed 10 meters.

ELECTRIC CONNECTION

The motor is equipped with a thermal protection system, and will be automatically switched off in the case of overload.
The motor can be switched on again after a cooling down period that can vary.

Electric checks and the electric installation of the machine may only be performed by a qualified electrician.
Electrical connection cables must comply with the regulations applicable in your country.

4. OPERATION

! CAUTION

Read the manual before assembly and operation. Become familiar with the machine and its components before beginning any work. Serious personal injury may result if safety or operational information in not understood or followed.

! IMPORTANT

Shut the machine off with the red button of the main switch and wait until the spindle rotation has stopped entirely before performing any adjustments or setups.
For some setups you need to unplug the machine additionally to avoid the danger of unintentional machine start up.

SPEED CHANGES

This machine is equipped with a V-belt drive system that controls the speeds. To change spindle speed follow these steps:

>> Unplug the machine from the power connection.

See Fig. F:
>> Loosen the two startype screws M6x30, open the Machine housing door.
>> Loosen the Allen Bolt M12x40 (a) with an allen wrench, pull the motor tension lever (b) out.

See Fig. G:
>> Select the desired speed. Fig. G shows the belt positions for each available speed.
>> Align the belt along the apropriate pulley grooves.
>> Push up the motor tension lever (b) and tighten the Allen bolt (a).
>> Tighten all the adjusting bolts.
>> Spin the pulley by hand to ensure proper tracking.
>> Close the machine housing door.
>> For belt change follow principally the same procedure as described above!

SPINDLE HEIGHT ADJUSTMENT

>> unplug the machine from the power connection.

See Fig. H:
>> Loosen the spindle height lock (a).
>> Move the spindle up or down with the spindle height handwheel (b) until the desired position is obtained.
To raise = turn counter-clockwise
to lower = turn clockwise
>> Secure the spindle height lock (a).

SPINDLE TILT SETTING

>> unplug the machine from the power connection.

See Fig. I:

>> Loosen the Spindle bevel lock (a).
to loosen = turn counter-clockwise
to lock = turn clockwise

>> Make sure that the fence & table do not touch the tool.
>> Move the spindle bevel with the spindle tilting handwheel (b) until it reaches the desired position.
>> Secure the spindle tilt lock (a).

MAIN CONTROLS

See Fig. J:

>> With the main switch you start and stop the machine.
(I) Green button for start
(O) red button for stop

>> The Forward/reverse switch enables to operate the machine in both directions.
Position L: The machine is running at forward mode, the spindle is running counter-clockwise.
Position R: The machine is running at reverse mode, the spindle is running clockwise.

FENCE ADJUSTMENT

The fence is a two-piece adjusting system. Each fence is independently adjustable to compensate for different cutting thicknesses and special milling applications.

See Fig. K:

>> Loosen the fence lock handle (h)
>> Turn the spindle latch setting knob (k)until the fence is set to the desired position.
>> Tighten the fence lock handle (h).

FEED ROLLER ADJUSTMENT

See Fig. L:

>> Loosen the startype screw M8x25 (a) and (b)
>> Move the feed roller above the workpiece.
>> Lock the startype screw M8x25(b), make sure that the roller is as close as possible to the workpiece.
>> Loosen the startype screw M8x25 (c) and (d).
>> Move the anti-kickback plate near to the workpiece.
>> Lock the startype screw M8x25 (c), so that the plate is 5-10mm above
>> Lock the startype screw M8x25 (d) so that the plate is as close as possible to the work piece that is going to be processed.

INSTALL SANDING ROLLER

! ATTENTION

Sanding must be performed at 1800rpm spindle speed!

>> Remove the Safeguard and feed roller.
>> Adjust the spindle to the highest position.

See Fig. M:
>> Insert the sanding drum(a) to sanding sleeve (b).
>> Place the support disc (c) and sanding drum assembly onto the spindle.
>> Secure the lock flange (d) with Allen bolt M12x25(e).

5. MAINTENANCE

! WARNING

Always switch off the motor and disconnect the plug from the power supply prior to any maintenance, upkeep, checks or cleaning.

CHECKS BEFORE OPERATION

>> Visual check of machine, machine parts, power cable, cutting tools for any damage.
>> Check distance between tool and table as well as fence. Check all tightening levers and knobs being tightened properly.

GENERAL MAINTENANCE

Clean the machine regularily after every operation! Clean especially the table, the fence faces and the mitre gauge.
Do not clean wood chips etc. by hand but rather use a suitable brush tool and/or pressure air.

Check regularily:

Bolts and connection looe
On/OFF Switch functioning?
safety components in proper condition?
tools sharp?

Lubrication:

Protect the table against rust with regular applications of light oil.

Add some grease onto the ways of the sliding table.

Check every month the condition of the V-belt. Check for cracks and glazing.
Avoid the V-belt and pulleys to become dirty or greasy - this could cause belt slips during operation.
You should replace at least once a year the V-belt.

For V-Belt change consult the section of V-belt tensioning in this manual.
After loosening the old belt, just remove it and install the new one.

6. TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Motor is slow or weak	Voltage from power source is low or unstable. Circuit is overload with appliances, lights or other electrically powered equipment Motor does not receive power on .all phases (for 400V model) Motor windings are damaged	Request a voltage check from the local power company. Do not use other appliances or electrically powered equipment on the same circuit when usin the Table Saw. Let this be checked by an electrician! have the motor be checked by an electrician and repaired/replaced if necessary
Motor overheats	Motor is overloaded Dull milling tool	Decrease the load by reducing the feeding speed Sharpen/replace the milling tool
When milling, the cut burns the workpiece or stalls the motor	Dull milling tool Warped workpiece	replace/sharpen milling tool. Plan/replace workpiece
Tilt/bevel & Height handles are hard to turn	Dust has accumulated on the mechanisms inside the base	Clean and lubricate the mechanisms inside the base.
The spindle does not tilt or does not move lower/higher	Bevel lock handle is not fully released Height lock handle is not fully released	Fully release Fully release
Spindle moulder vibrates excessively	Floor surface is not hard, or is uneven. V-belt is damaged milling tool is damaged Loose bolts, screws, nuts	Check and change Replace the belt replace the milling tool check and tighten
Spindle moulder does not start.	Motor cord is not plugged in Circuit fuse is blown Circuit breaker is tripped Motor cord or switch is damaged	Plug in Replace Replace circuit breaker Reset circuit breaker, have the motor cord or switch replaced
Power switch does not function	Power switch contacts are burned capacitator is defect Wiring connections are loose or damaged	Have the switch replaced Request a voltage check from the local power company Have the wiring connections checked/ repaired

PROBLEM	CAUSE	SOLUTION
Fuses or Circuit breakers activated frequently Motor Stalls Motor trips circuit brakers	Motor is overloaded Fuses or circuit breakers are wrong sized or defective. Dull milling tool Power switch has a defect	Feed the workpiece more slowly replace fuses or circuit breakers Replace have the power switch replaced
Spindle moulder is noisy when running and this is not due to vibration	Motor is loose or defective	have the motor checked/ repaired

5. GUARANTEE & SERVICE

GUARANTEE TERMS

This HOLZMANN machine is a high quality product and has been produced within the frame of a profound Quality Control Process.
Holzmann Maschinen grants 1 year of full manufacturer guarantee onto this product.
If it should have any malfunctions or insufficiencies, please consult the Troubleshooting section of this manual - maybe your problem will be resolved easily.
If not, please contact your local Holzmann partner where you bought the machine with following information:

A brief problem description:
What is the problem?
Has the power supply being checked?
Circumstances, etc ...

Copy of sales receipt

WARRANTY

During the warranty time, whichs length is as layed down in your countrys respective legislation, please contact for warranty claims your local HOLZMANN partner where you bought the machine from with following information:

>> A brief problem description:
What is the problem?
Has the power supply being checked?
Circumstances, etc ...

>> Copy of sales receipt

For spare part requests additionally mark the required spare parts on a copy of the exploded drawing of the machine.
We will process your warranty case with care.

GUARANTEE EXCLUSIONS

>> wearing parts in general
>> Any damages to the machine caused directly or indirectly by not following the instructions layed down in this manual, especially but not extensively when using the machine outside its performance frame, not following the security instructions, insufficient maintenance, insufficient knowledge to operate the machine correctly or by damages caused by insufficiencies in the power supply.

HOLZMANN MASCHINEN furthermore cannot be made liable for any damages to health and/or the machine that are a direct or indirect cause of not obeying the security rules, the operation rules and the maintenance rules layed down in this manual.

SPARE PARTS & SERVICE

After the guarantee time has expired, HOLZMANN Maschinen will support you further on with your machine:

We perform servicing on your machine at a fair service cost rate and/or provide you with the required spare parts.
Contact your local HOLZMANN partner to find out what is the best solution in your individual case.

For spare part requests please mark the required spare parts on a copy of the exploded drawing + note down the serial number of your machine.

KONFORMITÄTSERKLÄRUNG / DECLARATION OF CONFORMITY

CE

Inverkehrbringer / Distributor
HOLZMANN MASCHINEN GmbH
4170 Haslach, Marktplatz 4
AUSTRIA

Hereby we declare, that the below mentioned machine complies with all relevant safety and health requirements of the below stated directives. Any manipulation of the machine not explicitly approved by us renders this document null and void.

Hiermit erklären wir, dass die nachfolgend genannte(n) Maschine(n) den grundlegenden Sicherheits- und Gesundheitsanforderungen der angeführten EG-Richtlinien entspricht. Diese Erklärung verliert ihre Gültigkeit, wenn Veränderungen an der Maschine vorgenommen werden, die nicht mit uns schriftlich abgestimmt.

MACHINE TYPE / MASCHINENTYPE

single spindle vertical moulding machine / Vertikalspindel Tischfräsmaschine

MODEL NAME / MODELLBEZEICHNUNG

HOLZMANN FS 200SF (MX5110)

DIRECTIVES / RICHTLINIEN

2006/42/EC
2006/95/EC

REGISTRATION NUMBERS / REGISTRIERUNGSNUMMERN

BM 50170816 0001
AN 50170813 0002

Haslach 12.10.2010
Place,/Ort Date/datum

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