

SKAT II AUTOMATIC MITER SAW

Description

Our Skat II automatic miter saw has been designed to cut PVC (vinyl), aluminium and wooden profiles at various desired fixed angles including 15°-22.5°-30°-45°-90° and at intermediate angles using a fixing screw.

Accident Prevention

The machine has been designed and manufactured to meet EN 60204-1 and EN 292-2 CE safety directives, which cover national and international safety directives.

It is the employer's responsibility to warn our staff against accident risks, to train them on prevention of accidents and to provide for necessary safety equipment and devices for the operator's safety.

Before starting to work with the saw the operator should learn all details of the machine's operation.

The saw must not be operated by any staff member who has NOT read and understood the contents of this Safe Operating Procedure (SOP).

Operating and Safety Instructions

All directions and general safety rules contained in this SOP have to be followed fully. The machine may not be operated in any way for purposes other than those described in this SOP. If you do then the manufacturer will not be able to be held responsible for any damages or injuries and this will also lead to the warranty being void.

General Safety Information

- The power cable should be led in such a way that nobody can step on it or nothing can be placed on it. Special care has to be taken regarding the inlet and outlet sockets.
- If the power cable should be damaged during operation, don't touch and unplug it. Never use damaged power cables.
- Don't overload the saw for drilling and cutting, it will operate more safely with a constant power supply.
- Don't place your hands in moving parts e.g. blade.
- Use protective eye glasses and ear plugs. Don't wear oversize clothes and jewellery. These can be caught by moving parts.
- Keep your working place always clean, dry and tidy for accident prevention and safe operation.
- Use correct lighting for the safety of the operator
- Don't leave anything on the machine.
- Don't cut any other materials except PVC (vinyl), aluminium and wood.
- Ensure that the work piece is clamped by the machine's clamp or vice.
- Ensure safe working position, always keep your balance.
- Keep your machine always clean for safe operation. Check the plug and cable regularly. If damaged, let it replace by a qualified electrician. Keep handles and grips free of any oil and grease.
- Before conducting any maintenance unplug the saw first
- Ensure that any keys or adjustment tools have been removed before operating the machine.
- If you are required to operate the machine outside, use only appropriate extension cables.
- Repairs should be carried out by qualified technicians only.
- Before starting a new operation, check the function of your PPE and tools, ensure that they work properly. Damaged PPE, parts and equipment have to be replaced or repaired properly (by the manufacturer or dealer).
- Don't use the saw with broken buttons and switches.
- Don't keep flammable, combustive liquids and materials next to the saw and electric connections.



Transport of the Machine

The transport should be done by qualified personnel only.

The machine should be transported by lifting with proper equipment (not touching the ground during the transport).

Don't lift the machine before ensuring that lifting devices or other equipment is placed properly under the machine.

Operation

The Skat automatic miter saw is designed to cut non-ferrous aluminium, PVC profiles and wood.

The operator adjusts (manually via knob) the cutting speed of the saw blade according to the material type to be cut. Inner and outer sharp edges of the carbide tipped circular saw blade ensures high quality clean cutting results. The cutting length can be precisely read and adjusted using the measuring tape fixed to the back fence.

Start the machine only after proper clamping of the work piece to be cut.

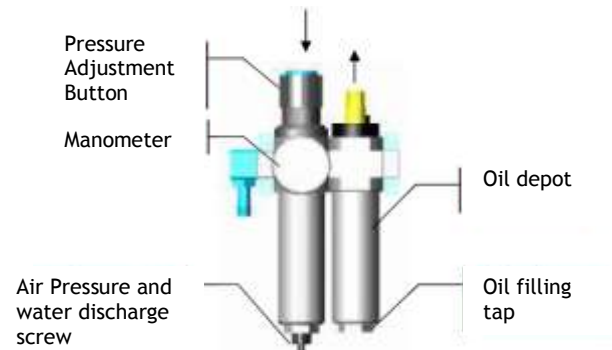
The machine is equipped with horizontal clamps. The clamping positions, either manual or pneumatic clamps, can be adjusted comfortably according to the material.

The clamping cylinders have to be outside of the saw blade moving area. (See Illustrations below)

The air pressure of the machine has to balance 6-8 Bar (90-120 psi) air pressure. Don't operate the machine with an air pressure lower than 6 Bar (90 psi).

Adjusting the Air Pressure of Pneumatic Clamps

- Pull the adjustment button of the conditioner upwards.
 - a- Turning the adjustment button in clockwise direction increases the pressure
 - b- Turning the adjustment button in counter clockwise direction decreases the pressure
 - c- Once you read 6-8 Bar on the manometer, push the adjustment button of the conditioner down and lock it in that position.
- Place the material to be cut on the machine table, take the measure the cutting length using the measuring tape on the back fence, and clamp the work piece (pneumatically).
- Start to operate the saw blade by pressing the Start button.
- Carry out the cutting operation by pressing down the two green buttons on the control panel simultaneously.
- After cutting off the material, release the buttons and the head moves back to its original position, press the Stop button. The saw blade will come to a full stop within 15 secs.
- Release the clamps (pneumatically) and take out the cut work piece.
- The conditioner unit collects the water within the air system in a receptacle in order to prevent damage to the pneumatic system components. Discharge this water periodically (at the end of the working day) by pressing or opening the button under the conditioner.
 - The manufacturer recommends to use the following oils with the conditioner: TELLUS C 10 / BP ENERGOL HLP 10/ MOBIL DTE LIGHT .
 - Don't operate the saw while it touches the work piece. The saw must be operated only when the head is in the top position.



Angle Cutting on the Machine Table

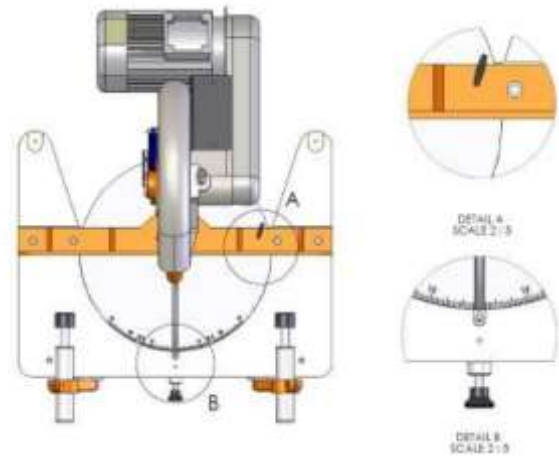
Don't operate the machine while the material to be cut is on the machine table. Machine has always to be operated when the saw head is in the upper position, and lowered after the saw blade has reached its normal speed.

- Press the saw blade down until it is inserted into its slot on the machine table.
- Pull the snap pin from its lock so that the machine table is released.
- Adjust the desired cutting angle by turning the saw head to the left or right respectively.
- Following angles are locked via the snap pin: 15° - 22.5° - 30° - 45°.

Previous Page: **DETAIL A:** Intermediate angle setting screw

DETAIL B: Angle display scale

The table can be fixed at any desired intermediate angle using the screw. At intermediate angles the snap pin is not in locked position. The machine table is tightened only temporarily. Ensure that the clamp is always outside of the cutting area.



CORRECT



WRONG

Safe Installation of the Saw Blade

To remove the circular saw blade from the blade shaft, follow the instructions below (see also illustration above)

- Remove the M8 screw by turning it counter clockwise with a 8 mm hexagonal key. (Hold the saw blade shaft at the opposite end with a 17 mm wrench key and prevent so that the shaft turns.)
- Remove the washer and the outer nut washer.
- Take out the saw blade carefully.
- Insert the new saw blade on the saw blade shaft, ensuring correct rotation direction.
- Insert the other parts (washer, outer nut washer) in reverse order as removal.
- Tighten the M8 screw while holding the blade shaft with a 17 mm wrench key in fix position.
- It is necessary to sharpen / replace the saw blade in certain intervals depending on the cutting material. If the cut material leaves burr after the cutting operation or if the saw blade is strained, it needs to be sharpened / replaced.
- When replacing the saw blade, use a saw blade washer which is in accordance with the saw blade shaft diameter. The outer diameter of the blade washer is 30 and 32 mm.

Maintenance

Routine Controls and Maintenance

Starting to Work

- Ensure that the table and all kind of parts are clean and dry. Degrease and dry the table. Especially ensure that the holding grips are clean and dry.
- Remove all burr, chip and foreign materials from all surfaces of the machine. Use protective eye glasses.
- Check the saw blade before each use. Turn the saw blade carefully (after removing the blade guard) to see the teeth of the saw blade. Replace the saw blade if it is damaged.
- Check the pressure of the air pressure system. If necessary, adjust the air pressure between 6-8 Bar (90-120 psi).
- Check the air pressure filters and the oil level of the conditioner. Fill up if the oil level is low.
- Unplug and disconnect the air pressure connections first, before carrying out these works.

Maintenance at the End of the Working Day

Disconnect electric and pneumatic connections. (Main Switch must be on "0" position)

Remove all burr, chip and foreign materials from the machine surfaces. If it is necessary to clean the inside of the blade guard, remove the front cover, use gloves to protect your hands from the sharp edges of the blade.

If water or water based liquids were used during cutting, dry the machine with a dry cloth after the operation is finished.

Apply a thin layer of machine oil to protect the table against corrosion. If the machine will not be used for a long time, lubricate with a protective oil.

Don't use materials for cleaning the machine, which could damage its paint.

Lubricate both surfaces of the saw blade with machine oil in order to protect it against corrosion.

Troubleshooting Guide

Here are some recommendations for solving urgent problems. If the trouble cannot be solved, or if you have a problem other than those described below notify Senol or the dealer.

TROUBLE	CAUSES	REMEDY
Low surface quality (aluminium and similar materials) Rough surface, Large chip, Not homogenous surface, Saw blade traces visible	Not cooling the saw blade surfaces	Lubricating the saw blade cutting surfaces, Using of cooling liquid
	Using of damaged or blunt saw blade	Check the saw blade teeth. Replace if necessary.
	Saw blade moves too quick	The cutting speed is too high for the material. Decrease the cutting speed.
Motor does not work (Start button is pressed, not working)	No power supply to the machine.	Check the electric cable connections. Check the electric power sockets.
Motor is working but the pneumatic clamp pistons do not work.	The air supply connections are missing, or the air pressure is too low.	Check the air compressor connections. Adjust the air pressure between 6-8 Bar on the conditioner
The saw blade rotates in reverse direction	The electric connection, the power cable or the connection at the panel is wrong	Let the electric connections carry out by a qualified electrician