



POLITECNICO
MILANO 1863

How to use the sander

Labora model making

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Allowed materials

Soft solid wood (oobece, linden, balsa)
up to a maximum thickness of 40 mm

Solid hardwood (walnut, beech, mahogany)
up to a maximum thickness of 30 mm

MDF up to a maximum thickness of 30 mm

Plywood panels up to a thickness of 20 mm

Plastic sheets (forex, methacrylate and polycarbonate) up to a thickness of 10 mm

Profiles for model making
(wood, plastics, aluminium, brass and copper)

Forbidden materials

Expanded plastic materials

Profiles and plates of steel and ferrous metals

Sheets of **glass, plaster, cement and stone**

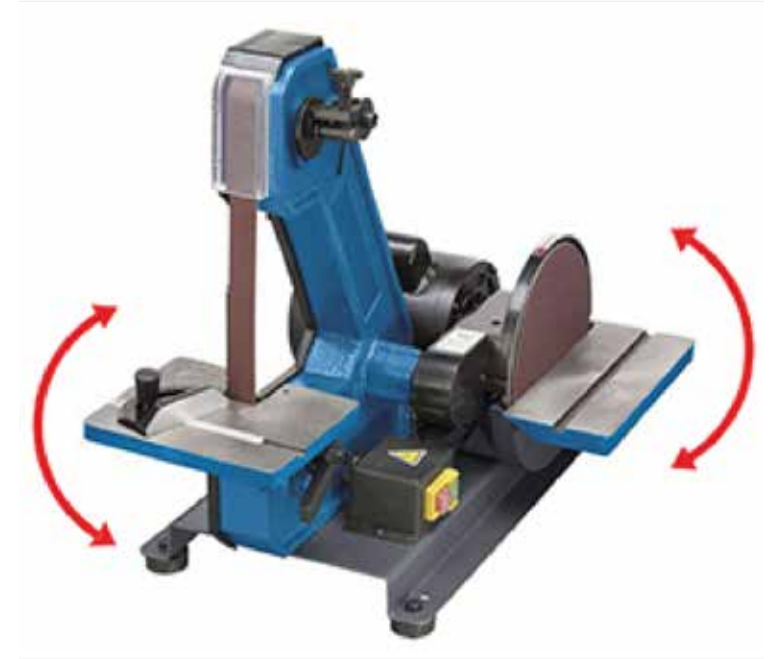
Before turning on the sander

Read carefully the signage displayed in the Drilling lab.

Check the integrity of the belt sander. If you notice any irregularities, tell the staff.



If you need to use **guides** on the worktops, ask the staff, who will also provide instructions on how to use them safely.



If necessary, you can **modify the standard configuration of the sander** by changing the angle of the work surfaces and/or securing any guides.

Inclination of the work plane

If you need to perform **non-orthogonal sanding**, for the creation of pitched roofs, you can adjust the inclination of the work surfaces using the side handles.

When sanding, we suggest to **tilt the plan only downwards**, in order to avoid dangers deriving from dragging and possible blocking of the workpiece between the work plane and the sanding paper.

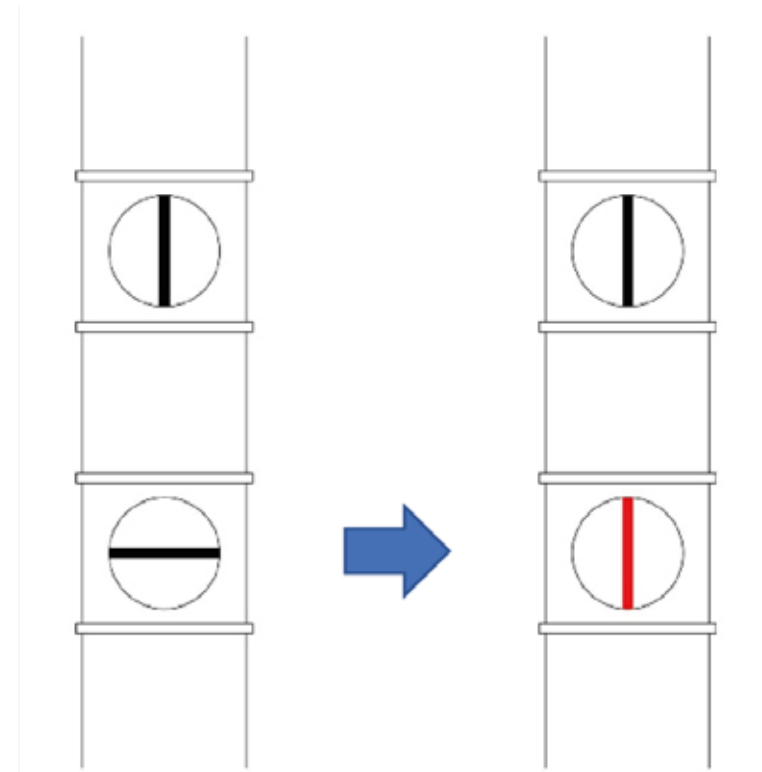


Activation of the aspiration system

Switch on and check that the dust extraction system is active: **OPEN** and **START** switches in position **I** and wait for the green light to appear.



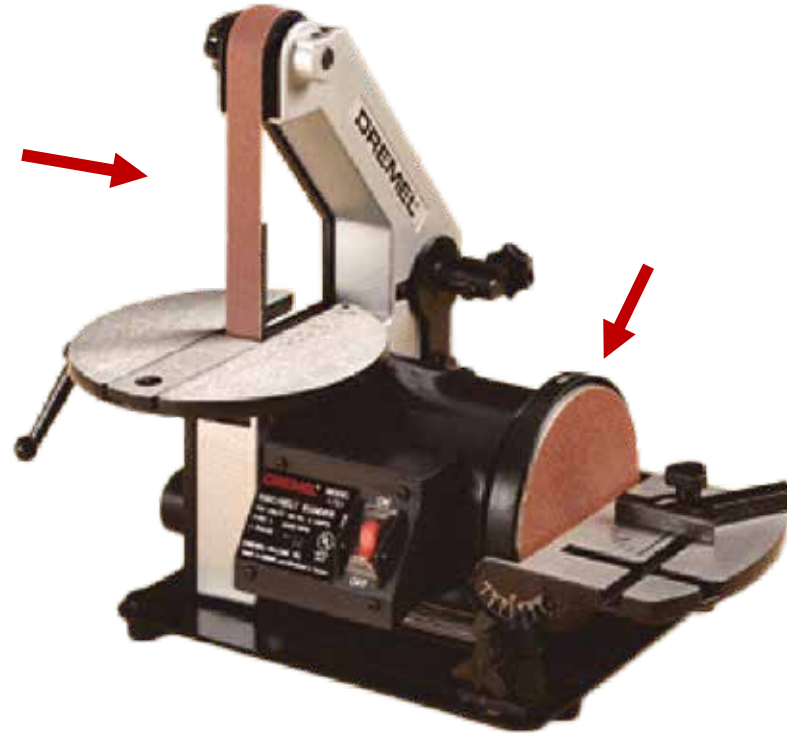
Open the lower shutter, located on the suction pipe, corresponding to the sander you want to use, by turning it to the vertical position.



Switching on the sander

To start sanding, **press the ON/OFF (I/O) switch** on the front (Dremel sander) or on the right side (Fervi sander) of the machine.

Remember that pressing the switch sets both the front belt and the side disc in motion.



Operating the machine

The sander is a machine used for finishing pieces, **not for producing them**: for this reason, you must first cut the pieces with the scroll saw at a **maximum distance of 1 mm** from the perimeter, in order to minimize the sanding.

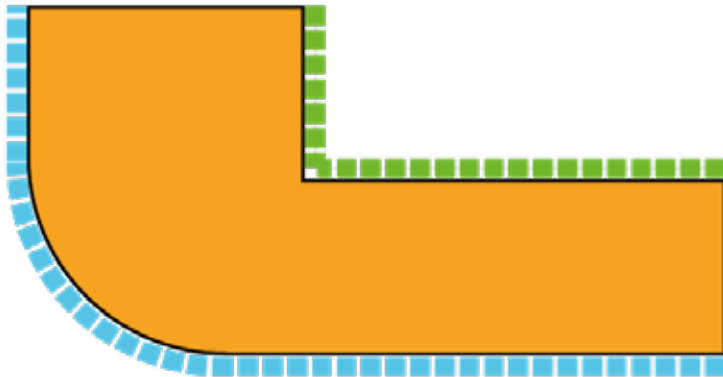
Place the piece you need to sand on the work surface and **hold it firmly** and close to the surface. Then push it gently until it comes into contact with the belt or disc.

You should apply **light pressure** in order to avoid burning the pieces, belt breakage or excessive disc wear.



Belt sander

The use of the **belt** is suitable for finishing **internal corners**.



Belt sander



Disc sander



Disc sander

The use of the **disc** is suitable for finishing **external corners**. The **disc** rotates counterclockwise, so it should **only be used in the left-hand half**.

Using the disc from the center to the right can be **dangerous**, as the rotating movement of the disc causes the workpiece to be lifted upwards.

Working area

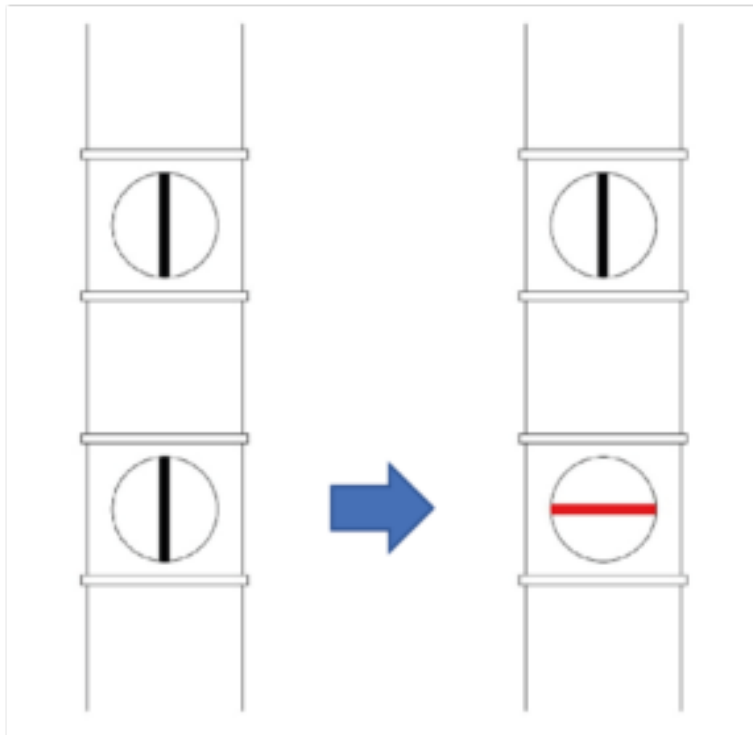


At the end of the sanding

- **Switch off the sander.** Never leave your workstation while the machine is running.
- **Restore the standard configuration:** leave the sander work plane in a horizontal position and remove any guides.
- **Clean the cutting area:** remove any wood scraps and throw them in the appropriate container. Remove any residual dust from the sander and the surrounding area using the flexible suction pipe, **which should only be used for wood dust.**

Shutting down the aspiration system

Close the lower shutter located on the suction pipe, in correspondence to the machine you used, turning it to a horizontal position.



Reset the two OPEN and START switches on the dust extraction system.

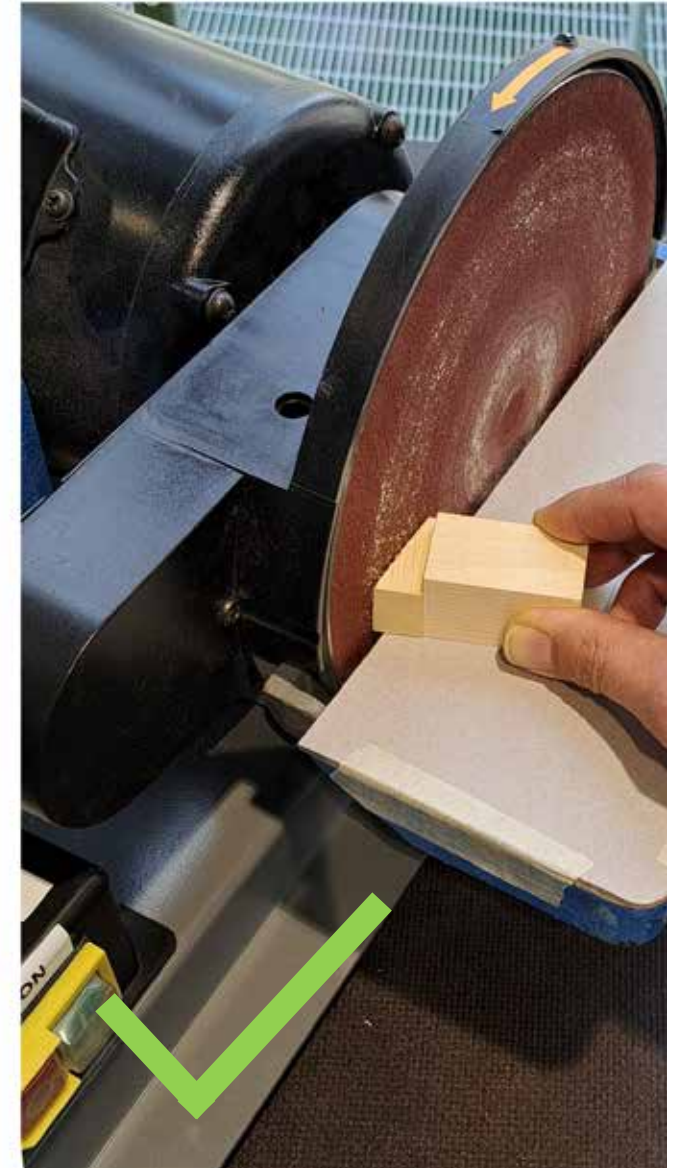
Leave the system switched on if other drills or sanders are in operation.



Sanding of small pieces

To safely sand small pieces, make sure that the work surface is **covered with cardboard** to minimize the distance between the plane and the belt or disc, in order to prevent the piece from getting stuck in the gap.

It may also be necessary to attach these covers to extensions using **double-sided tape**, so that you can sand safely without getting your fingers close to the sander.





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