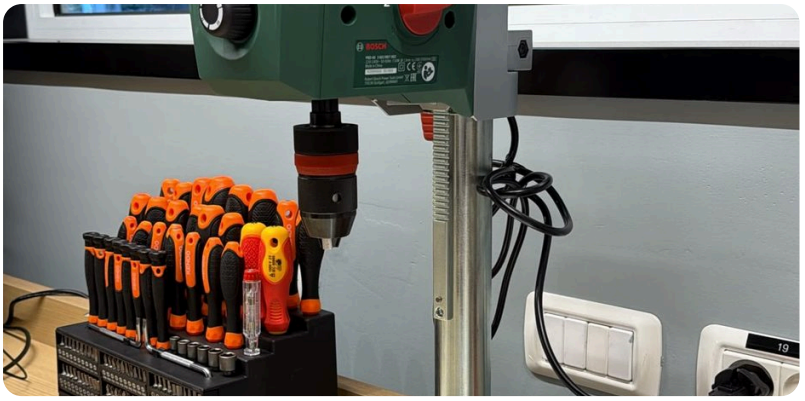
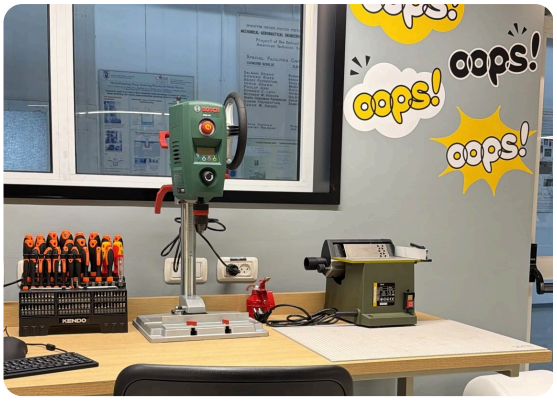
Bench drill

Bosch PBD 40



The PBD 40



Clamp, fence and table

Power	710 W
Speed	1st gear 200–850 rpm, 2nd gear 600–2,500 rpm
Largest hole	13 mm in steel, 40 mm in wood
Chuck	Keyless, for shanks from 1.5 to 13 mm
Stroke	90 mm
Aids	Digital display for speed and depth, positioning laser, work light

1. Prepare

1. Mark the hole. In metal, centre-punch it so the bit does not wander.
2. Put the bit in the chuck and tighten the sleeve by hand until it is firm.
3. Choose the gear with the machine stopped: 1st gear for large bits and metal, 2nd gear for small bits and wood.
4. Set the part on the table against the fence, with scrap wood underneath if you are drilling through, and clamp it.

2. Set speed and depth

1. Switch on and turn the dial until the display shows the speed you want. Use the table below as a starting point.
2. Switch on the laser to see where the bit will land, and line the part up.
3. For a blind hole, bring the bit down to touch the part, set the depth reading to zero and drill to the depth you need.

3. Drill

1. Feed with the wheel, steadily. Let the bit cut. Don’t force it.
2. In metal, add a drop of cutting oil. Lift the bit every few millimetres to break and clear the chips.
3. Ease off as you break through.
4. Switch off and wait for the chuck to stop.

4. Finish

1. Unclamp the part and deburr the hole.
2. Brush the chips off the table into the bin.
3. Take the bit out and return it.

Starting speeds

Bit diameter	Wood	Aluminium, plastics	Steel
3 mm	2,500 rpm	2,500 rpm	2,500 rpm
6 mm	2,500 rpm	2,500 rpm	1,300 rpm
10 mm	1,800 rpm	1,900 rpm	800 rpm
13 mm	1,400 rpm	1,500 rpm	600 rpm
20–40 mm (wood bits)	400–900 rpm		

Rule of thumb: the larger the bit and the harder the material, the slower the speed. Smoke, squealing or blue chips mean too fast.