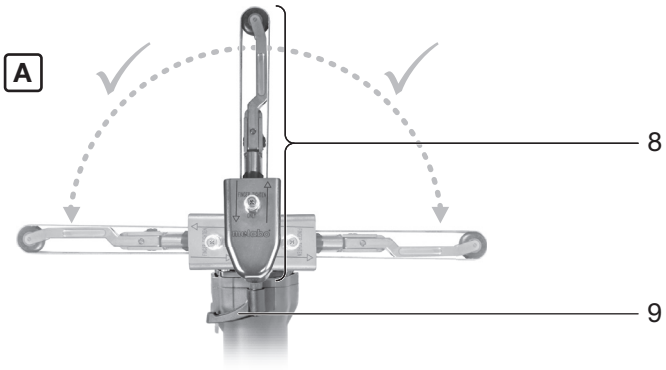
metabo®

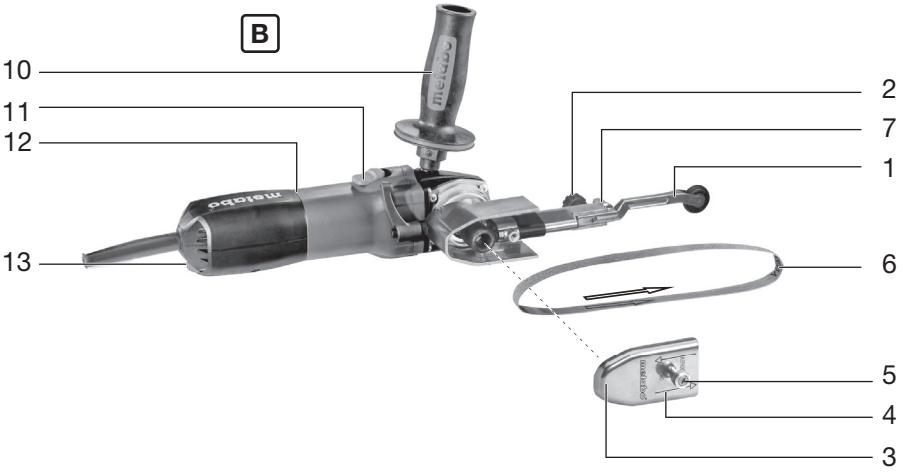
PROFESSIONAL POWER TOOL SOLUTIONS

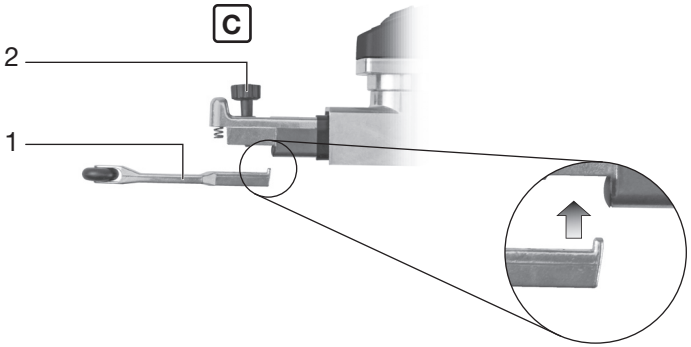
BFE 9-20

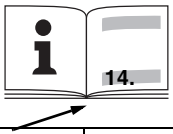
www.metabo.com

Made in Germany


A
8
9


B
10
11
12
13
2
7
1
6
5
4
3


C
2
1

		**BFE 9-20** *1) Serial-Number: 02244...
B_L	mm (in)	457 (18)
v_0	m/s	10,6 - 20
P_1	W	950
P_2	W	510
m	kg (lbs)	1,8 (4.0)
a_h/K_h	m/s^2	< 2,5/ 1,5
L_{pA}/K_{pA}	dB(A)	89 / 3
L_{WA}/K_{WA}	dB(A)	100 / 3

CE *2) 2014/30/EU, 2006/42/EC, 2011/65/EU
*3) EN 62841-1:2015, EN 62841-2-4:2014, EN IEC 63000:2018

ppa. B.F

2021-09-14, Bernd Fleischmann
Direktor Produktentstehung & Qualität (Vice President Product Engineering & Quality)
*4) Metabowerke GmbH - Metabo-Allee 1 - 72622 Nuertingen, Germany

Original instructions

1. Declaration of Conformity

We declare under our sole responsibility: These band files, identified by type and serial number *1), comply with all relevant requirements of the directives *2) and standards *3). Technical file at *4) - see page 3.

For UK only:

UK CA We as manufacturer and authorized person to compile the technical file, see *4) on page 3, hereby declare under sole responsibility that these band files, identified by type and serial number *1) on page 3, fulfill all relevant provisions of following UK Regulations S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032 and Designated Standards EN 62841-1:2015, EN 62841-2-4:2014, EN IEC 63000:2018 .

2. Specified Use

The band file is used for dry sanding, deburring and polishing metals, wood, materials similar to wood, plastics and construction materials.

The user bears sole responsibility for any damage caused by improper use.

Generally accepted accident prevention regulations and the enclosed safety information must be observed.

3. General Safety Instructions


For your own protection and for the protection of your electrical tool, pay attention to all parts of the text that are marked with this symbol!


WARNING – Reading the operating instructions will reduce the risk of injury.


WARNING – Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.*

Save all warnings and instructions for future reference. Pass on your electrical tool only together with these documents.

4. Special Safety Instructions

Hold the power tool by insulated gripping surfaces, because the sanding surface may contact its own cord. Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

Flying sparks are created when sanding metal. Ensure that no persons are in danger. Due to the risk of fire, all combustible materials must be removed from the work area (area affected by flying sparks).


During machining, of metals in particular, conductive dust can form deposits inside the machine. This can lead to the transfer of electrical energy onto the machine housing. This can mean a temporary danger of electric shocks. This is why it is necessary when the machine is running to blow compressed air through the rear ventilation slots of the machine regularly, frequently and thoroughly. Here, the machine must be held firmly.

We recommend using a stationary extractor system and connecting a residual current circuit-breaker (FI) upstream. When the machine is shut down via the FI circuit-breaker, it must be checked and cleaned. See chapter 8. Cleaning for more information on cleaning the motor.

Wear ear protectors. Exposure to noise can cause hearing loss.

Wear protective gloves.


Always wear protective goggles.

Secure the workpiece against slipping, e.g. with the help of clamping devices.

Always guide the machine with both hands on the handles provided. Loss of control can cause personal injury.

Never place your hand near rotating parts of the device or near the rotating sanding belt.

Remove sanding dust and similar material only when the machine is not in operation.

Pull the plug out of the plug socket before any adjustments, conversions or servicing are performed.

The rated speed of the sanding belt must be at least equal to the belt speed in idling marked on the power tool. A sanding belt running faster than its rated speed can break and fly apart.

Check prior to each use that the sanding belt is correctly attached and is completely on the rollers. Carry out a trial run: Allow the machine to run at idling speed for 30 seconds in a safe location. Stop immediately if significant vibrations occur or if other defects are noted. If such a situation occurs, check the machine to determine the cause.

Reduce dust exposure:


Particles generated when working with this machine may contain substances that can cause cancer, allergic reactions, respiratory diseases, birth defects or other propagation defects. Some of these substances include: Lead (in paint containing lead), mineral dust (from bricks, concrete etc.), additives used for wood treatment (chromate, wood preservatives), some wood types (such as oak or beech dust), metals, asbestos. The risk depends on for how long the user or nearby persons are exposed to the substance.
This dust must not be allowed to enter your body. Do the following to reduce exposure to these substances: Ensure good ventilation of the

workplace and wear appropriate protective equipment, such as respirators able to filter microscopically small particles.

Observe the relevant guidelines for your material, staff, application and place of application (e.g. occupational health and safety regulations, disposal).

Collect the generated particles at the source, avoid deposits in the surrounding area.

Use suitable accessories for special work (see chapter 11.), thus less particles enter the environment in an uncontrolled manner.

Use a suitable extraction unit.

Reduce dust exposure with the following measures:
- Do not direct the escaping particles and the exhaust air stream at yourself or nearby persons or on dust deposits.
- Use an extraction unit and/or air purifiers
- Ensure good ventilation of the workplace and keep clean using a vacuum cleaner Sweeping or blowing stirs up dust
- Vacuum or wash the protective clothing Do not blow, beat or brush

5. Overview

See page 2.

1 Sanding attachment
2 Rotary knob for securing the sanding attachment and adjusting the belt run
3 Cover
4 Arrow (direction of rotation of drive shaft)
5 Screw for securing the cover
6 Sanding belt
7 Tensioner arm for replacing the sanding belt
8 Sanding head
9 Clamping lever for adjusting sanding head
10 Additional handle
11 Sliding switch
12 handle
13 Adjusting wheel for setting belt speed

6. Initial Operation

Before plugging in, check that the rated mains voltage and mains frequency, as stated on the rating label, match with your power supply.

Always install an RCD with a max. trip current of 30 mA upstream.

Attaching the additional handle

Always work with the additional handle attached (10)! Attach the additional handle on the left or right of the machine and secure. Attach the additional handle to the side facing away from the sanding belt (6).

Turning the sanding head (8) to operating position

Note: To turn the clamping lever (9) the position of the lever must be changed
if necessary. The position can be changed without clamping. For this purpose, raise the lever, turn it and then lower the lever again.

- Release clamping lever (9).
- If necessary and depending on the working conditions, turn the sanding head (8). The sanding head must be positioned in the permitted working area as shown (see illustration A, page 2).
- Firmly tighten the clamping lever (9).
- The clamping lever (9) is tongued. If you pull it out slightly, it can be turned on the hexagon underneath.

Each time before you start work, verify that the clamping lever (9) is sufficiently tightened to ensure that the sanding head (8) does not move. Otherwise, the sanding belt (6) may come in contact with the user. Loss of control can cause personal injury.

7. Use

7.1 On/Off switch, continuous activation

Always guide the machine with both hands.

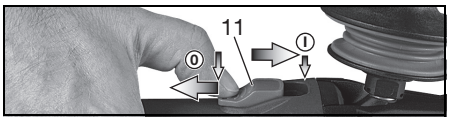
Switch the machine on first before mounting it on the workpiece.

The machine must not be allowed to draw in additional dust and shavings. When switching the machine on and off, keep it away from dust deposits.

After switching off the machine, only place it down when the motor has come to a standstill.

Avoid inadvertent starts: always switch the tool off when the plug is removed from the mains socket or if there has been a power cut.

In continuous operation, the machine continues running if it is forced out of your hands. Therefore, always hold the machine using the handles provided, stand in a safe position and concentrate.



Switching on/Continuous activation: Push slide switch (11) forward. For continuous activation, now tilt downwards until it engages.

Switching off: Press the rear end of the slide switch (11) and release.

7.2 Setting belt speed

The belt speed can be preset via the setting wheel (13) and is infinitely variable.

Positions 1-6 correspond approximately to the following belt speeds:

1 ..... 9,0 m/s	4 ..... 16,7 m/s
2 ..... 12,6 m/s	5 ..... 18,1 m/s
3 ..... 15,0 m/s	6 ..... 20,0 m/s

7.3 Sanding belt replacement

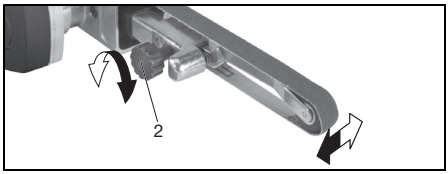
See illustration B, page 2.

- Manually loosen screw (5) and remove cover (3).

- Pull tensioner arm (7) backwards and remove sanding belt (6).
- Place the new sanding belt on the rollers such that its direction of circulation (arrows on the inside of the sanding belt) matches the arrows (4) on the cover. Place the sanding belt first on the drive shaft and then on the roller on the sanding attachment (1).
- Replace the cover (3) and tighten the screw (5) by hand.
- Check the belt run and adjust if necessary (see Section 7.4).

7.4 Adjusting belt run

⚠ Using the screw (2), adjust the sanding belt - while the machine is not in operation and is plugged out - so that it runs in the centre of the sanding belt roller.



7.5 Sanding procedure

Switch the machine on first before mounting it on the workpiece.

Place the machine on the material such that the sanding belt is parallel to the surface of the workpiece.

Keep the machine in constant motion because otherwise recesses could be produced in the material.

7.6 Replacing the sanding attachment

See illustration C, page 2.

- Removing the sanding belt (see Section 7.3).
- Remove screw (2), and remove sanding attachment (1).
- Attach the other sanding attachment as shown (ensure that the nose at the end of the sanding attachment is pointing in the direction of the tensioning arm, see illustration C).
- Secure with screw (2).
- Attaching the sanding belt (see Section 7.3).
- Adjusting the belt run (see Section 7.4).

8. Cleaning, Maintenance

Motor cleaning: blow compressed air through the rear ventilation slots of the machine regularly, frequently and thoroughly. Here, the machine must be held firmly.

9. Tips and Tricks

For optimum operation: Sand on the side on which the sanding belt moves towards the machine.

10. Troubleshooting

- **Overload protection: There is a MAJOR reduction in load speed.** The motor temperature is too high! Allow the machine to run at idle speed until it has cooled down.
- **Overload protection: There is a SLIGHT reduction in load speed.** The machine is overloaded. Reduce the load before continuing to work.
- **Restart protection: The machine does not start.** The restart protection is active. If the mains plug is inserted with the machine switched on, or if the power supply is restored following an interruption, the machine does not start up. Switch the machine off and on again.

11. Accessories

Use only genuine Metabo accessories.

If you need any accessories, check with your dealer.

The dealer needs to know the exact model of your power tool in order to select the correct accessory.

For a complete range of accessories, see www.metabo.com or the main catalogue.

12. Repairs

⚠ **Danger!**

Repair of power tools must be carried out by qualified electricians only!

If the supply cord of this power tool is damaged, it must be replaced by a specially prepared supply cord

available through the service organization.

If you have Metabo power tools that require repairs, please contact your Metabo service centre. For addresses see www.metabo.com.

You can download a list of spare parts from www.metabo.com.

13. Environmental Protection

The sanding dust generated may contain hazardous materials: do not dispose of with the household waste, but at a special collection point for hazardous waste.

Observe national regulations on environmentally compatible disposal and on the recycling of disused machines, packaging and accessories.

Only for EU countries: Never dispose of power tools in your household waste! In accordance with European Guideline 2012/19/EU on used electronic and electric equipment and its implementation in national legal systems, used power tools must be collected separately and handed in for environmentally compatible recycling.

14. Technical Specifications

Explanatory notes on the specifications on page 3.
Changes due to technological progress reserved.

B_L = Sanding belt length
v_0 = Belt speed in idling
P_1 = Nominal power input
P_2 = Power output
m = Weight without mains cable
Measured values determined in conformity with EN 62841.

⧈ Machine in protection class II

~ Alternating current

The technical specifications quoted are subject to tolerances (in compliance with the relevant valid standards).

Emission values
These values make it possible to assess the emissions from the power tool and to compare different power tools. Depending on the operating conditions, the condition of the power tool or the accessories, the actual load may be higher or lower. For assessment purposes, please allow for breaks and periods when the load is lower. Based on the adjusted estimates, arrange protective measures for the user e.g. organisational measures.

Vibration total value (vector sum of three directions) determined in accordance with EN 62841:
a_h = Vibration emission value (sanding surfaces)
K_h = Uncertainty (vibration)

Typical A-effective perceived sound levels:
L_{pA} = Sound pressure level
L_{WA} = Acoustic power level
K_{pA}, K_{WA} = Uncertainty

During operation the noise level can exceed 80 dB(A).

Wear ear protectors!

Problems, faults:
In individual cases, the speed may fluctuate temporarily if the machine is exposed to extreme external electromagnetic disturbances or the electronic restart protection may respond. In this case, switch the machine off and on again.