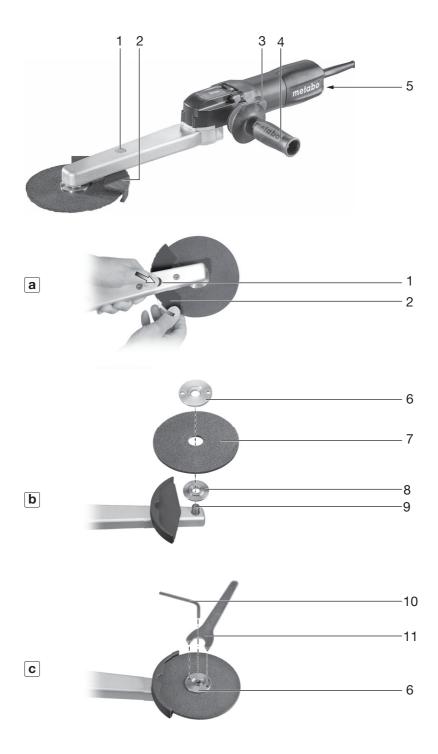






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i	14.	KNSE 9-150 *1) Serial Number: 02265
D <sub>max</sub>	mm (in)	150 (6)
t <sub>max1</sub> ; t <sub>max3</sub>	mm (in)	3; 6 (1/8; 1/4)
M/I 🎘 🗀	- / mm (in)	M 14 / 15 ( <sup>19</sup> / <sub>32</sub> )
n	min <sup>-1</sup> (rpm)	900 - 3800
P <sub>1</sub>	W	950
P <sub>2</sub>	W	510
m	kg (lbs)	2,7 (6.0)
a <sub>h,P</sub> /K <sub>h,P</sub>	m/s <sup>2</sup>	< 2,5 / 1,5
L <sub>pA</sub> /K <sub>pA</sub>	dB(A)	89,5/3
L <sub>WA</sub> /K <sub>WA</sub>	dB(A)	100,5/3

**( \***2) 2014/30/EU, 2006/42/EC, 2011/65/EU \*3) EN 60745-1:2009+A11:2010, EN 60745-2-3:2011+A2:2013+A11:2014+A12:2014+A13:2015, EN IEC 63000:2018

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 fillet weld grinders, 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:

We as manufacturer and authorized person to compile the technical file, see \*4) on page 3, hereby declare under sole responsibility that these fillet weld grinders, identified by type and serial number \*1) on page 3, fulfill all relevant provisions of following UK Regulations \*2) S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032 and Designated Standards EN 60745-1:2009+A11:2010, EN 60745-2-3:2011+A2:2013+A11:2014+A12:2014+A13:2015, EN IEC 63000:2018.

# 2. Specified Use

The machines, with original Metabo accessories, are suitable for polishing metal without the use of water.

Not suitable for use with roughing disk or cut-off wheel.

Not suitable for grinding, sanding, wire brushing or abrasive cutting-off operations.

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 and instructions. Failure to follow all safety warnings and instructions may result in electric shock, fire and/or serious injury.

Keep all safety instructions and information for future reference. Pass on your electrical tool only together with these documents.

# 4. Special Safety Instructions

4.1 Safety Warnings Common for Grinding, Sanding, Wire Brushing, Polishing or Abrasive Cutting-Off Operations:

a) This power tool is intended to function as a polisher. 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.

- b) Operations such as grinding, sanding, wire brushing or cutting-off are not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c) Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d) The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
- e) The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.
- f) Treaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange. Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If a power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.
- h) Wear personal protective equipment.
  Depending on application, use face shield,
  safety goggles or safety glasses. As
  appropriate, wear dust mask, hearing
  protectors, gloves and workshop apron
  capable of stopping small abrasive or
  workpiece fragments. The eye protection must be
  capable of stopping flying debris generated by
  various operations. The dust mask or respirator
  must be capable of filtering particles generated by
  your operation. Prolonged exposure to high
  intensity noise may cause hearing loss.
- i) Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

- j) Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- k) Position the cord clear of the spinning accessory. If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- I) Never lay the power tool down until the accessory has come to a complete stop. The spinning accessory may grab the surface and pull the power tool out of your control.
- m) Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- n) Regularly clean the power tool's air vents. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- o) Do not operate the power tool near flammable materials. Sparks could ignite these materials.
- p) Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electrocution or shock.

# 4.2 Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.
- b) Never place your hand near the rotating accessory. Accessory may kickback over your hand.
- c) Do not position your body in the area where power tool will move if kickback occurs.

Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.

- d) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.
- 4.3 Safety Warnings Specific for Polishing:
  Loose parts on the polishing guard, especially
  the fastening cords, are not permitted. Tuck
  away or shorten the fastening cords. Loose,
  spinning fastening cords may make contact with
  your fingers or become caught in the workpiece.

#### 4.4 Additional Safety Instructions



**WARNING** – Always wear protective goggles.

Use elastic cushioning layers if they have been supplied with the abrasive and if required.

Observe the specifications of the tool or accessory manufacturer! Protect the discs from grease or impacts!

Accessories must be stored and handled with care in accordance with the manufacturer's instructions.

The workpiece must lay flat and be secured against slipping, e.g. using clamps. Large workpieces must be sufficiently supported.

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 polisher is shut down via the FI circuit-breaker, it must be checked and cleaned. See chapter 9. Cleaning for more information on cleaning the motor.

When working in dusty conditions, ensure that ventilation openings are not blocked. If it becomes necessary to remove dust, first disconnect the power tool from the mains supply (use non-metallic objects) and avoid damaging internal components.

Damaged, eccentric or vibrating tools must not be used.

Pull the plug out of the socket before making any adjustments, converting or servicing the machine.

A damaged or cracked additional handle must be replaced. Never operate a machine with a defective additional handle.

# en ENGLISH

A damaged or cracked hand guard must be replaced. Never operate a machine with a defective hand guard.

# Reducing dust exposure:

WARNING - Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

This also applies to dust from other materials such as some timber types (like oak or beech dust), metals, asbestos. Other known diseases are e.g. allergic reactions, respiratory diseases. Do not let dust enter the body.

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

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

Use suitable accessories for special work. In this way, fewer 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.

- Button for adjusting the hand guard
- 2 Hand protection
- 3 Sliding on/off switch
- 4 Additional handle / Additional handle with vibration damping \*
- 5 Speed adjustment wheel
- 6 Adjusting nut
- 7 Accessory
- 8 Support flange
- 9 Spindle
- 10 Allen key
- 11 2-hole spanner

\* depending on equipment/not in scope of delivery

# 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.

# 6.1 Attaching the additional handle

Always work with the additional handle attached (4)! Attach the additional handle on the left or right of the machine and secure.

# 6.2 Attaching the hand guard

Always work with the hand guard (2) attached. Inserting:

- Press and hold the button (1).
- Slide the hand guard (2) into the slot from the bottom to the top as shown (see illustration a, page 2). First slide the glider with the widest diameter approx. 5 mm into the external slot. Then slide the glider with the smallest diameter into the inner slot.

Note: Do not try to slide both gliders into both slots at the same time, as this will not work. Start with the external glider, and the inner glider will follow automatically.

#### Turning:

- Press the button (1) and turn the hand guard until the closed section is facing the operator.
- Make sure that the guard is securely positioned: The button (1) must engage and you should not be able to turn the safety guard.

# 7. Attaching the accessory

Disconnect the mains plug before changing any accessories. The machine must be switched off and the spindle at a standstill.

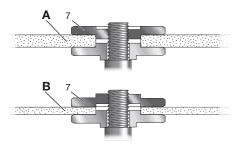
# 7.1 Positioning the accessory

See illustration b, page 2.

- The two sides of the support flange (8) are different: Place the support flange (8) around the spindle (9) in such a way that the large collar diameter which corresponds to the accessory (7) is facing upwards.
- Place the accessory (7) on the support flange (8).
   The accessory must lay flat on the supporting flange.

# 7.2 Tightening/loosening the clamping nut Securing the clamping nut (6):

The 2 sides of the clamping nut (6) are different. Screw the clamping nut onto the spindle (9) as follows:



- A) In the case of thick (6 mm) accessories:
   The collar of the clamping nut (6) faces downwards so that the clamping nut can be attached securely to the spindle.
- B) In the case of thin (3 mm) accessories: The collar of the clamping nut (6) faces upwards so that the thin accessory can be clamped securely
- Lock the spindle (9) using the Allen key (10). Tighten the clamping nut (6) by turning it clockwise using the 2-hole spanner (11) (see illustration c, page 2).

# Releasing the clamping nut:

 Lock the spindle using the Allen key (10). Remove the clamping nut (6) by turning it anticlockwise using the 2-hole spanner (11) (see illustration b, page 2).

# 8. Use

#### 8.1 Setting speed

The speed can be preset via the setting wheel (5) and is infinitely variable.

Positions 1-6 correspond approximately to the following no-load speeds:

1 900 / min	4 2800 / min
2 1700 / min	5 3400 / min
3 2350 / min	6 3800 / min

The VTC electronics make material-compatible work possible and an almost constant speed, even under load.

# 8.2 Switching On and Off

A

Always guide the machine with both hands.

A

Switch on first, then guide the accessory towards 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.

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



Switching on: Push the slide switch (3) forward. For continuous activation, now tilt downwards until it engages.

Switching off: Press the rear end of the slide switch (3) and release.

#### 8.3 Working instructions

Press down lightly on the machine and move over and back across the surface.

# 9. Cleaning

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

# 10. Troubleshooting

# 10.1 Mains powered machines:

- 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.
- Metabo S-automatic safety shutdown: The machine was SWITCHED OFF automatically. If the slew rate of the current is too high (for example, if the machine suddenly seizes or kickback occurs), the machine switches off.
   Switch off the machine using the slide switch (3).
   Switch it on again and continue to work as normal.
   Try to prevent the machine from seizing. See
   Section 4.2.
- 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.

Use only accessories which fulfil the requirements and specifications listed in these operating instructions.

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

# 12. Repairs



Repairs to electrical tools must be carried out by qualified electricians ONLY!

# en ENGLISH

Contact your local Metabo representative if you have Metabo power tools requiring repairs. 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.

Packaging materials must be disposed of according to their labelling in accordance with municipal guidelines. Further information can be found at www.metabo.com in the "Service" section.

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

Explanation of details on page 3. Subject to changes serving technical progress.

= maximum diameter of accessory  $D_{max}$ 

= max. permitted thickness of clamping t<sub>max.1</sub>

shank on accessory when using clamping nut (6)

= max. permitted thickness of accessory t<sub>max,3</sub>

=Spindle thread

= Length of the grinding spindle = No-load speed (maximum speed)

= Nominal power input

=Power output

n

= Weight without mains cable

Measured values determined in conformity with EN 60745.

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.

<u>Vibration total value</u> (vector sum of three directions) determined in accordance with EN 60745:

= Vibration emission value (polishing) a<sub>h, P</sub>

= Uncertainty (vibration)

Typical A-effective perceived sound levels:

= Sound pressure level  $L_{pA}$  $\mathsf{L}_{\mathsf{WA}}$ = Acoustic power level

K<sub>pA</sub>, K<sub>WA</sub>= 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.