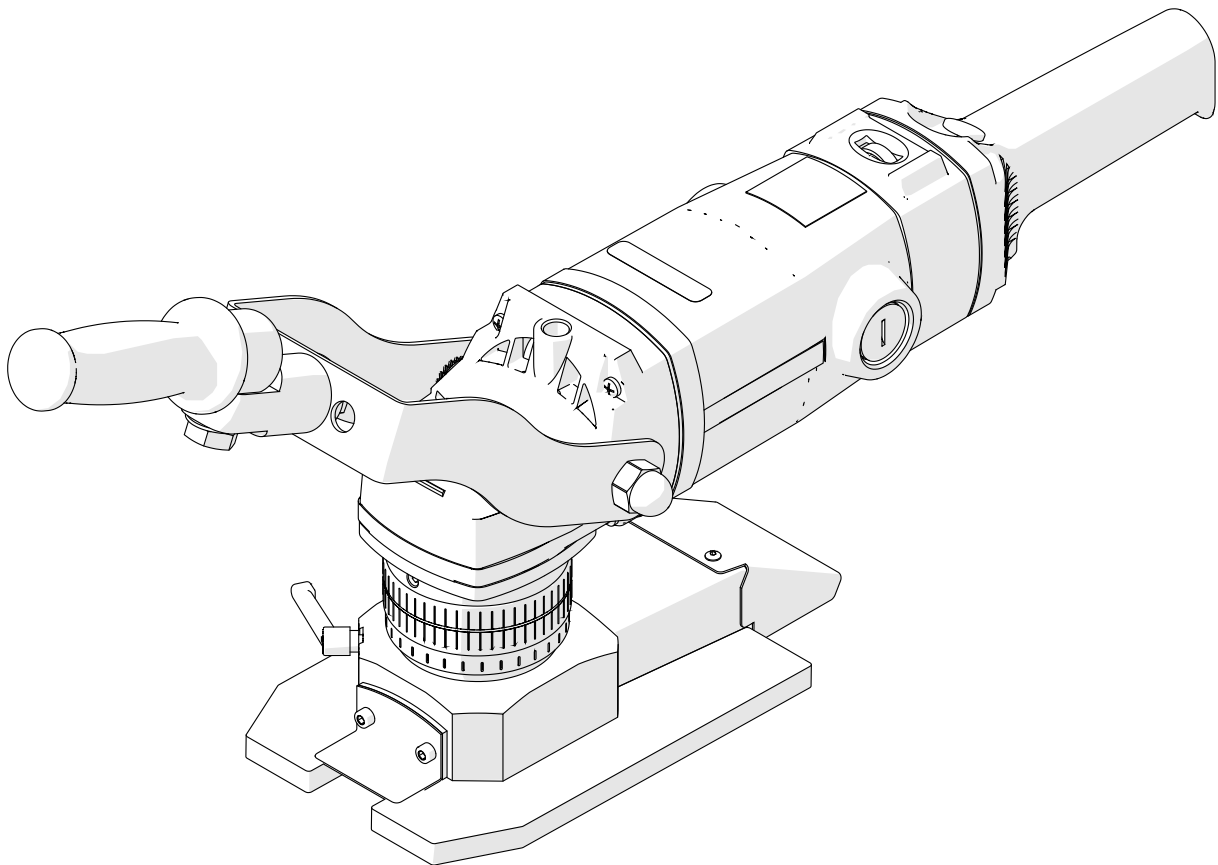


OPERATOR'S MANUAL

WELD MILLING MACHINE

WS-30



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1. GENERAL INFORMATION

1.1. Application

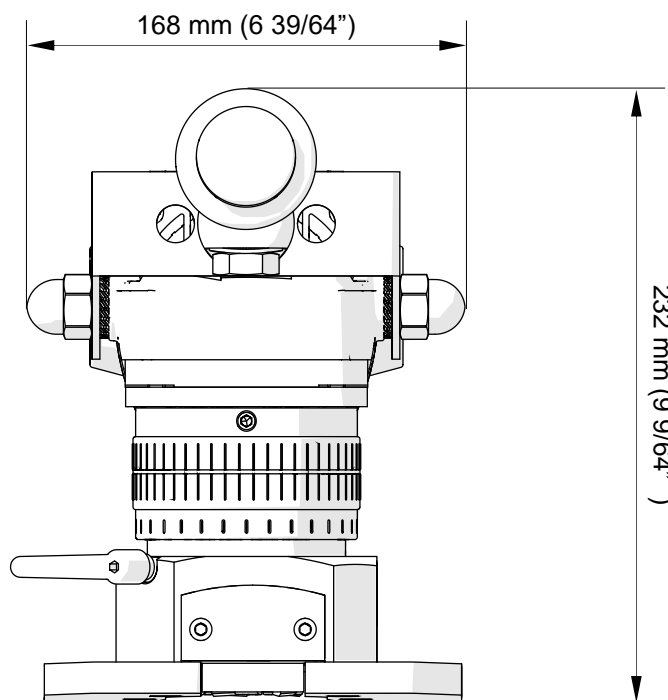
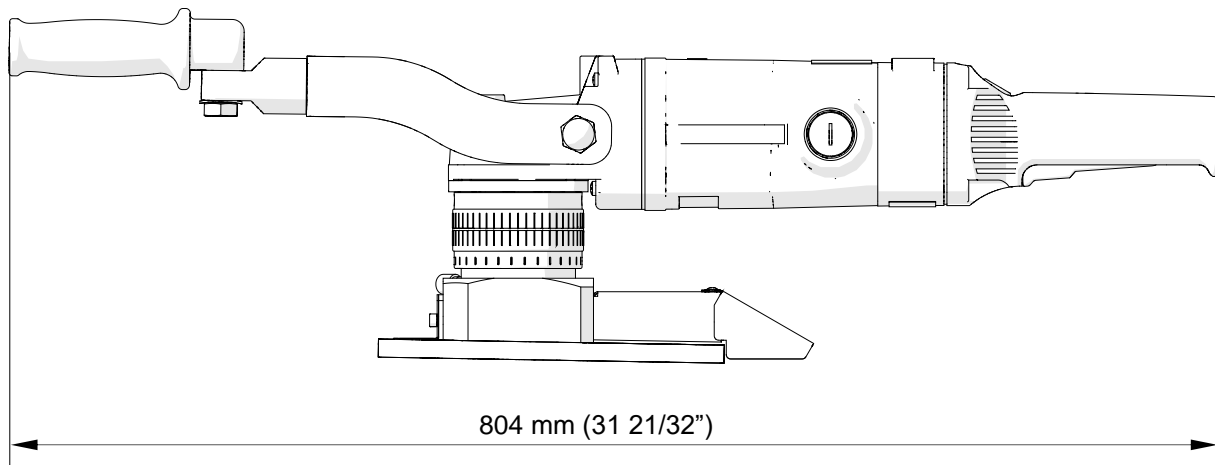
The WS-30 WM milling machine is designed for milling the butt welds.

It allows for milling welds in depth range from -1.5 mm (-1/16") to 11 mm (7/16") at maximum weld width of 30 mm (1 3/16").

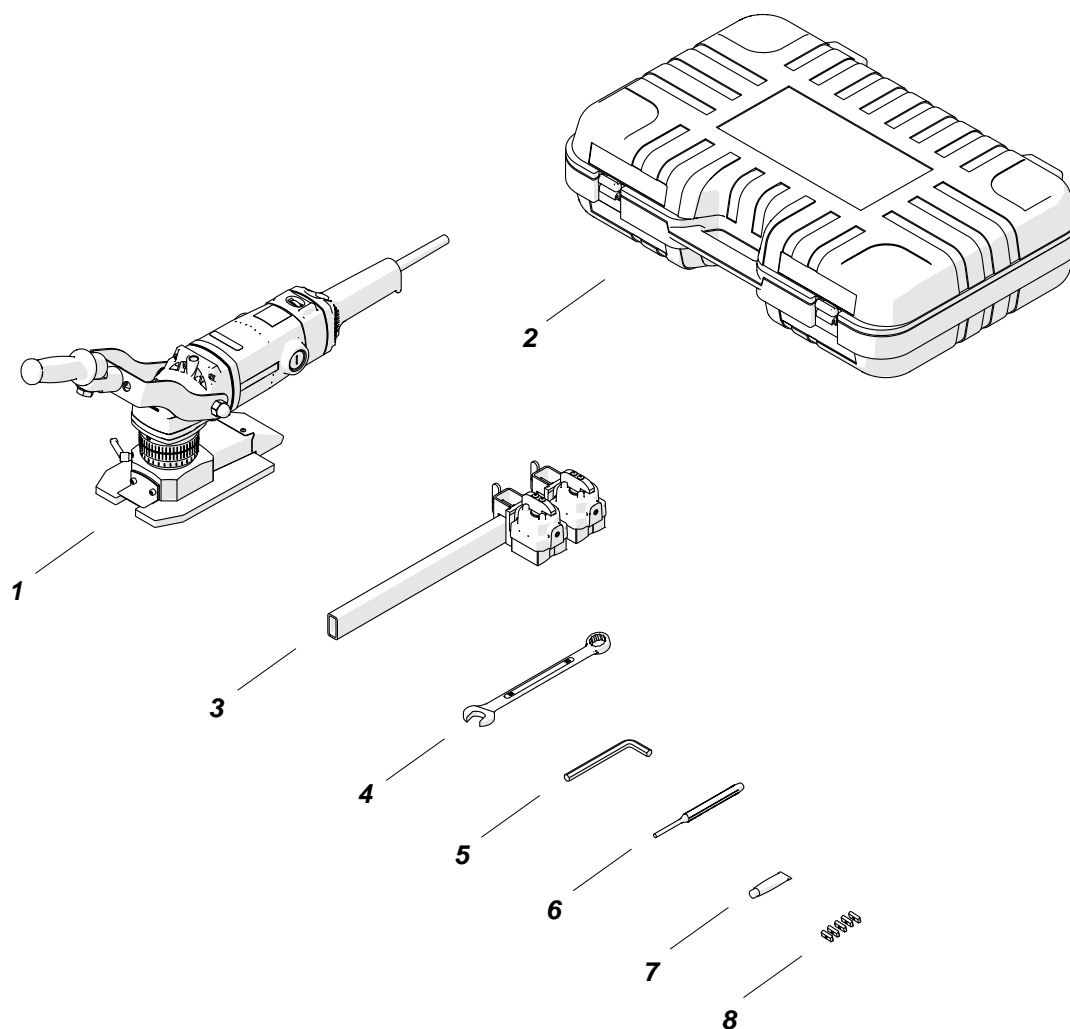
It is equipped with the ergonomic handle allowing for positioning the machine in a comfortable position according to the machined workpiece, workbench height, and operator's body type, as well as optimal load distribution between the operator's hands. The machine is designed for professional use only.

1.2. Technical data

Voltage	1~ 220-240 V, 50-60 Hz
Power	2200 W
Rotational speed with no load	1800-5850 rpm
Protection level	IP 20
Protection class	II
Maximum milling width	30 mm (1 3/16")
Maximum milling depth	-1.5 mm (-1/16")
Maximum milling height	11 mm (1 3/16")
Noise level	More than 70 dB
Vibration level	2.3 m/s ² (7.5 ft/s ²) Machine harmful for health. Take periodic breaks during work.
Weight	12.5 kg
Required ambient temperature	0-40°C (32-104°F)

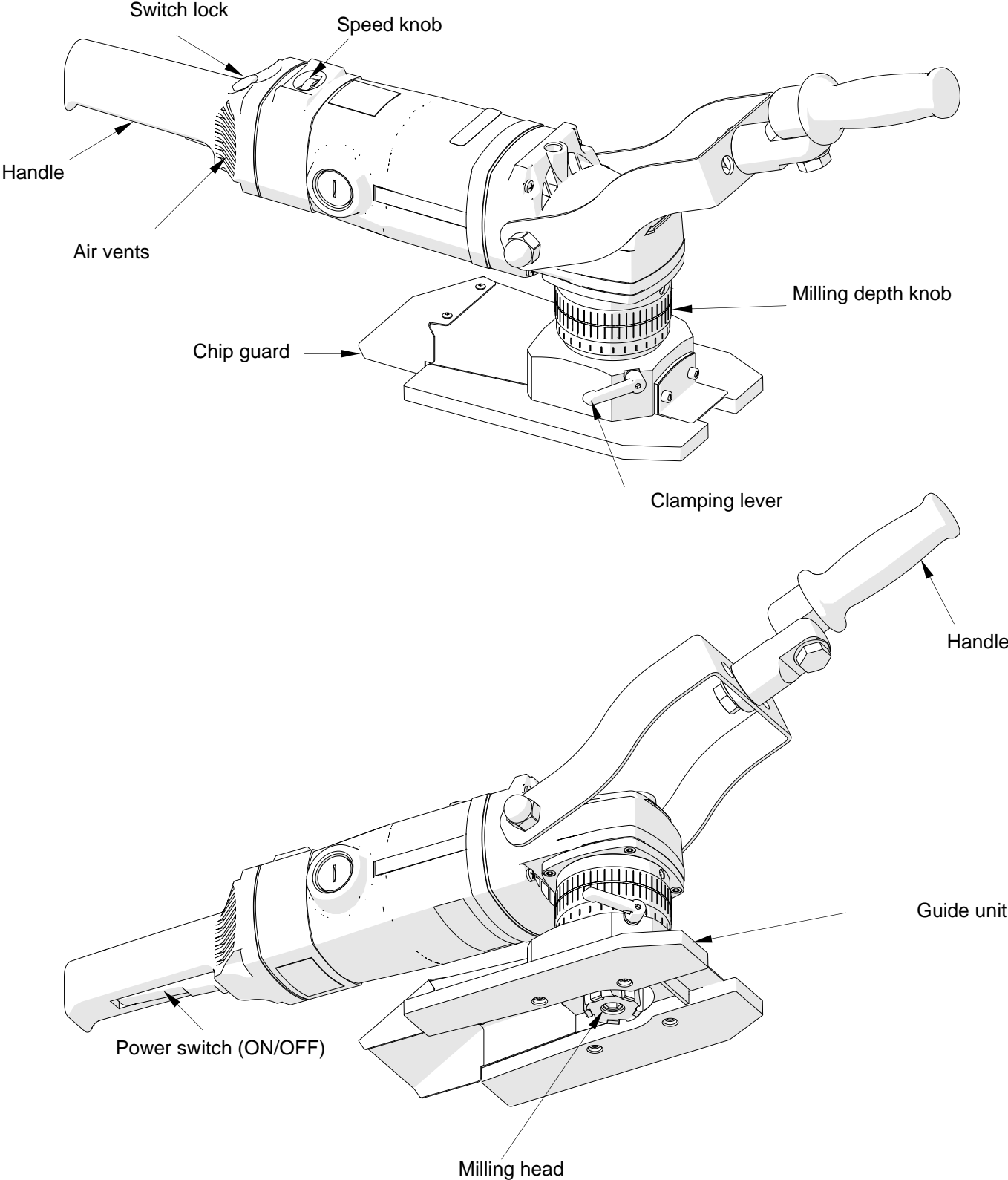
1.3. Dimensions

1.4. Equipment included



1	Milling machine	1 unit
2	Plastic box	1 unit
3	Magnetic guide	1 unit
4	Combination wrench 22 mm	1 unit
5	Hex wrench 10 mm	1 unit
6	Drift	1 unit
7	Grease	1 unit
8	Cutting inserts	5 units
-	Operator's Manual	1 unit

1.5. Design



2. SAFETY PRECAUTIONS

1. Before use, read this Operator's Manual and complete a training in occupational health and safety.
2. Use only in applications specified in this Operator's Manual.
3. Make sure that the machine has all parts and they are genuine and not damaged.
4. Make sure that the specifications of the power source are the same as those specified on the rating plate.
5. Do not carry the machine by the power cord and do not pull the power cord. This may cause damage and electric shock.
6. Keep untrained persons away from the machine.
7. Before each use, ensure the correct condition of the machine, power source, power cord, plug, control parts, and tools.
8. Before each use, make sure that no part is cracked or loose. Make sure to maintain correct conditions that may influence the operation of the machine.
9. Keep the machine dry. Do not expose the machine to rain, snow, or frost.
10. Keep the work area well-lit, clean, and free of obstacles.
11. Do not use in explosive environments or near flammable materials.
12. Use only tools specified in this Operator's Manual.
13. Do not use tools that are dull or damaged.
14. Make sure that the cutting inserts and the milling head are correctly attached. Remove wrenches from the work area before you connect the machine to the air source.
15. Do not use the machine with the milling head pointing up.
16. Do not carry the machine with rotating head. Before carrying unplug the machine from the power source.
17. If the cutting edge of an insert is worn, turn all inserts by 180°. If all cutting edges are worn, replace all inserts with new ones specified in this Operator's Manual.
18. Use eye and ear protection, work boots, protective clothing, and heat-resistant gloves. The clothing must not be loose.
19. Due to high level of vibrations it is recommended to use the anti-vibration gloves.
20. Do not touch chips or moving parts with bare hands. Do not let anything catch in moving parts.

21. After use, clean the machine and the milling head with a dry cotton cloth and without any chemical agents. Do not remove chips with bare hands.
22. Maintain the machine and attach/remove parts and tool only after you unplug the machine from the power source.
23. Repair only in a service center appointed by the seller.
24. If the machine falls, is wet, or has any damage, stop the work and promptly send the machine to the service center for check and repair.
25. If you are not going to use the machine, remove it from the work area and keep it in a safe and dry place.
26. If you are not going to use the machine for an extended period, put anti-corrosion agent on steel parts.

3. SYMBOLS

Before using the machine, familiarize yourself with the following symbols.



Wear eye protection



Use hearing protection



Read the Operator's Manual



Warning against electric voltage

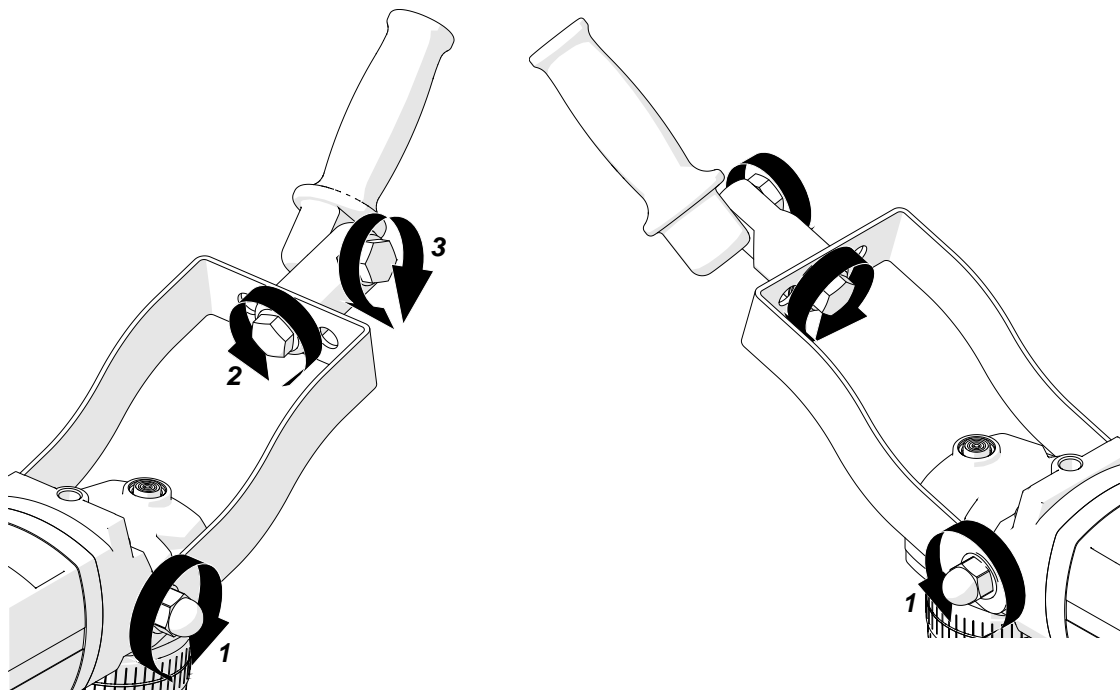
4. STARTUP AND OPERATION

4.1. Handle adjustment

The milling machine handle may be adjusted in three axes so the operator may adapt it to their needs. To adjust, loosen the domed nuts (1) and screws (2) and (3) using 22 mm flat wrench. Perform adjustment and tighten the loosened elements.



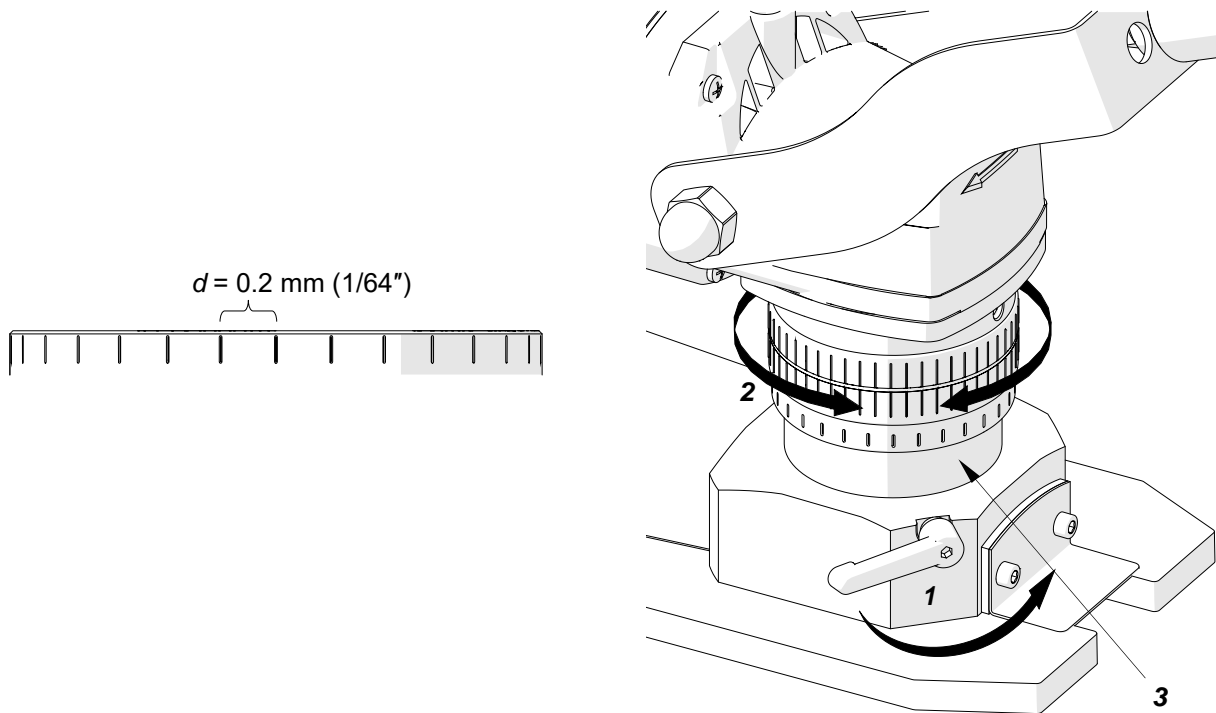
Before work make sure that the handle is tightened properly.



4.2. Milling depth adjustment

Unplug the power cord. Release the lever (1). Rotate the knob (2) so the scale (3) shows the milling depth “d” (maximum 11 mm (7/16”) and minimum -1,5 mm (-1/16”). Lock the lever.

The depth change is 0.2 mm (1/64”) per graduation or 3 mm (1/8”) per one full turn of the knob.

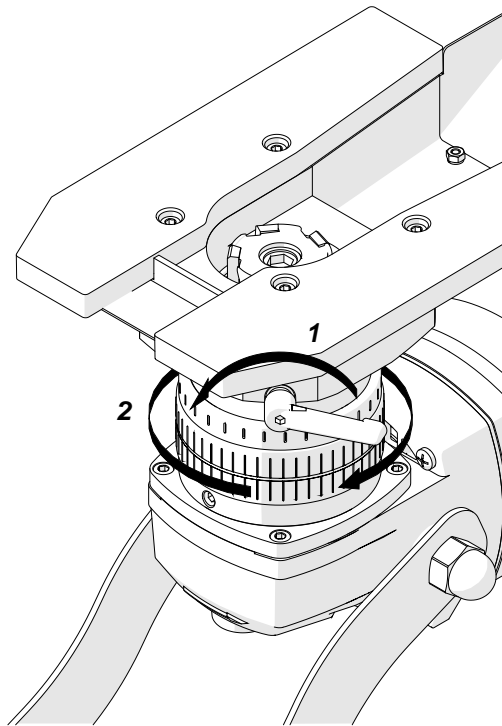


After adjusting the depth perform the test machining and correct the setting as required.

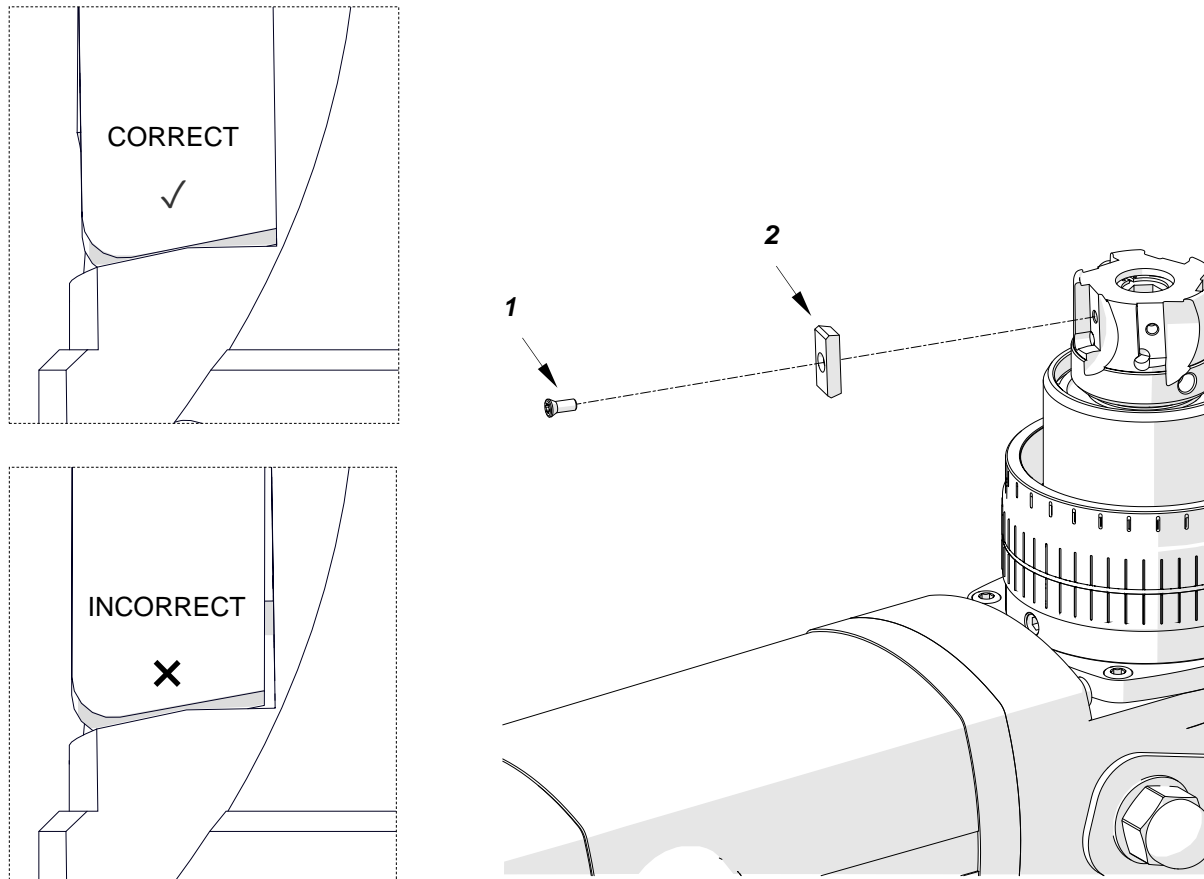
4.3. Cutting inserts installation

Unplug the power cord. Position the milling machine with head up. Unlock the lever (1) and rotate knob (2) to disassemble the whole guide unit.

CAUTION: do not unscrew the lever (1) completely. It may cause dropping the clamping element.



Prepare screws (1) covered with delivered grease. Put the insert (2) in the socket, press it down and fix with screw, using T15 torx screwdriver. Make sure that the whole bottom of the insert touches the socket.



Finally reinstall the guide unit.

4.4. Replacing the cutting inserts

When inserts become dull, they should be rotated or replaced.

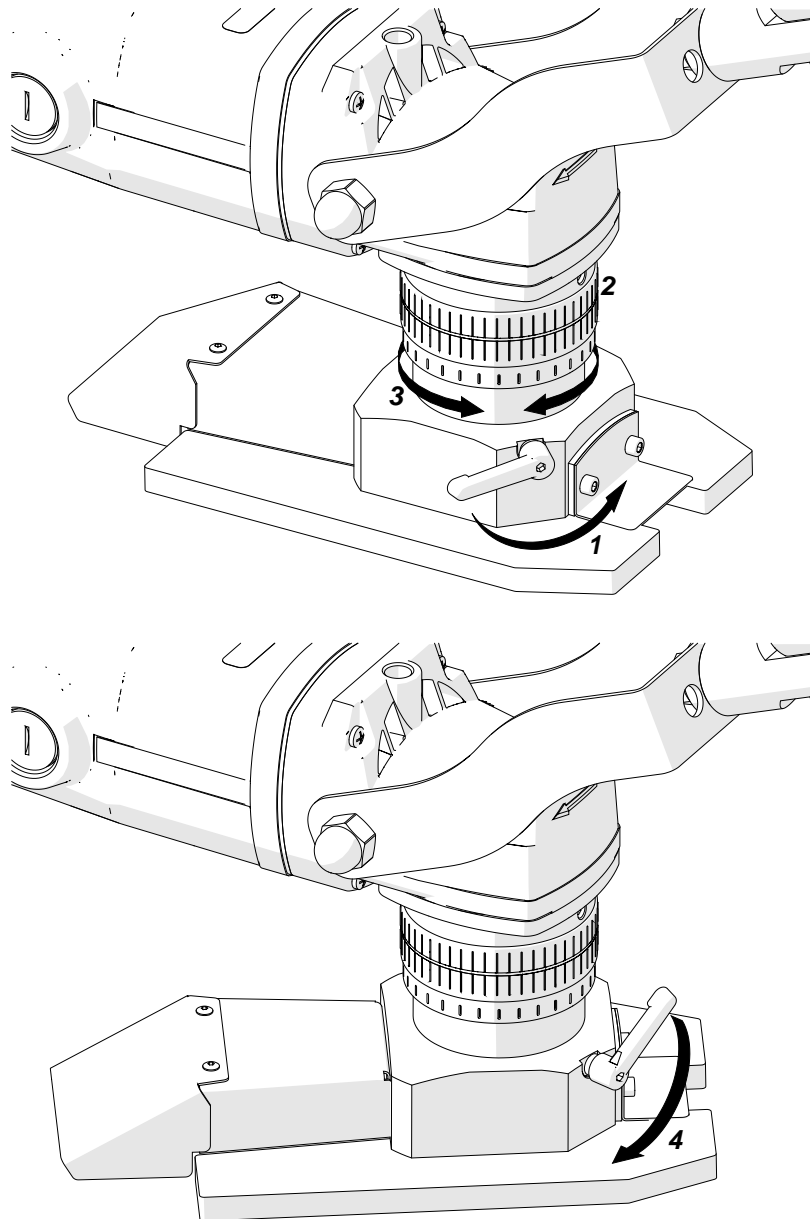
Unplug the power cord. Set the guides and head like during installation of new inserts.

Use T15 torx screwdriver to remove the cutting inserts. Clean the sockets.

To change the cutting edge rotate the inserts by 180°. Press the inserts towards the sockets and tighten them. If all cutting edges are worn, replace the inserts with new ones. Make sure that the whole bottom of the insert touches the socket.

4.5. Turning the guide unit

Unplug the power cord. Release the lever (1). Hold the milling depth knob (2) so it does not rotate in relation to the guide unit and turn the guide unit to the desired position (3). Correct the milling depth when required. Lock the lever (4).



4.6. Preparation for machining

Set the required milling depth. Then use the speed knob to set the rotational speed.

Material	Rotational speed
Structural steel of standard quality, quality steel	Setting 3-6 (3100-5850 rpm)

The speed knob allows for control of the rotational speed in the range of 1800-5850 rpm.

Setting	1	2	3	4	5	6
Speed	1800 rpm	2400 rpm	3100 rpm	3800 rpm	4500 rpm	5850 rpm

To machine the structural steel of standard quality or quality steel, set the speed to 6 and decrease the speed if much sparking occurs.

4.7. Operating

Connect the machine to the power source. Make sure that the workpiece is stable. Remove all contamination from the workpiece surface.

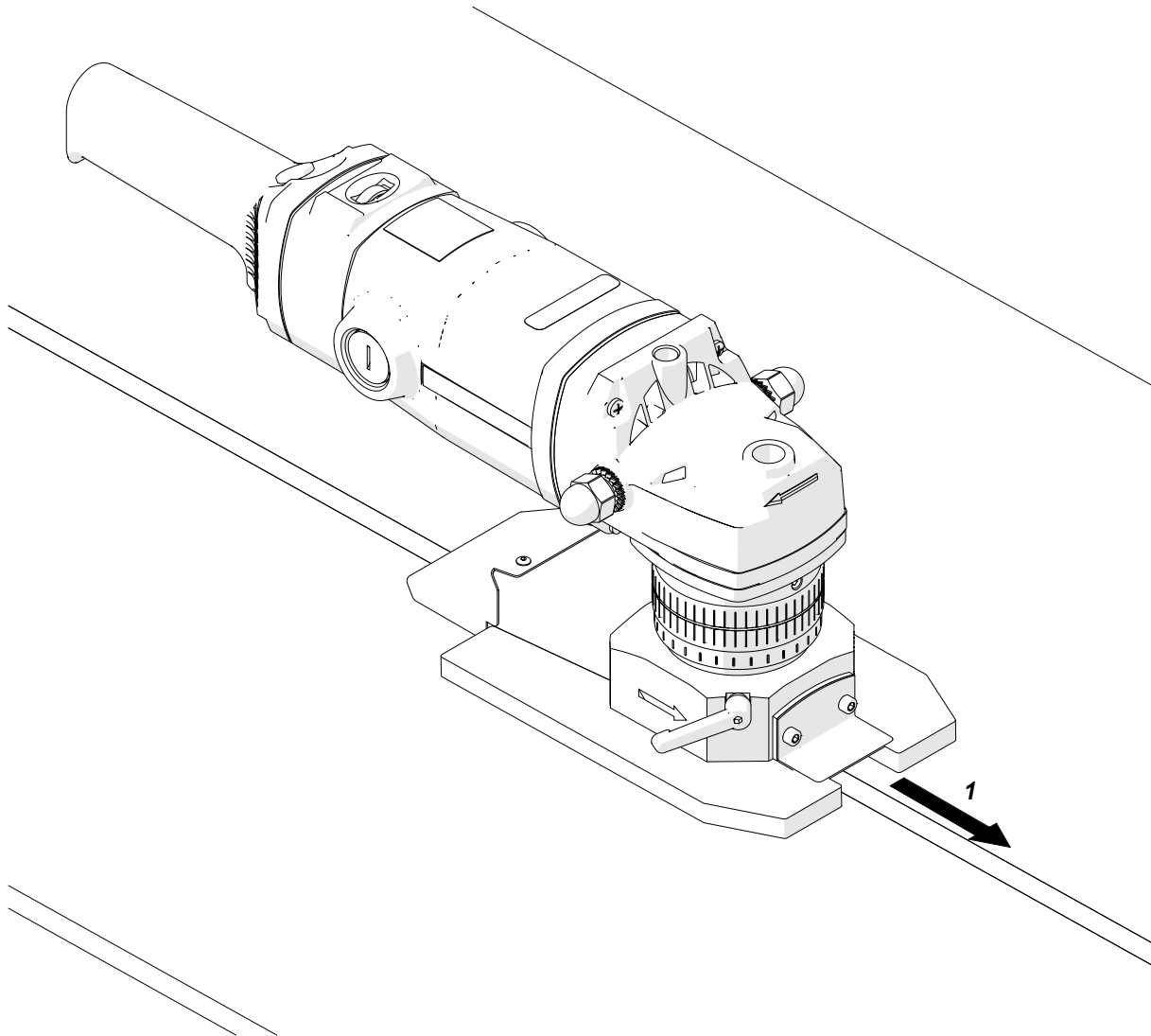


Place the power cord in such way that it does not rub against the workpiece edge during work, as it may lead to its damage and electric shock.

Position the milling machine in such way that the head axis is aligned with the machined weld axis, but the head does not touch the weld. Rest the front edges of guides on the material.

To start the motor press and hold the switch lock and the power switch, then release the lock. Wait a few seconds until the speed reaches the set value. Press the guide unit towards the material surface. Guide the machine in direction indicated by the arrow on the guide unit.

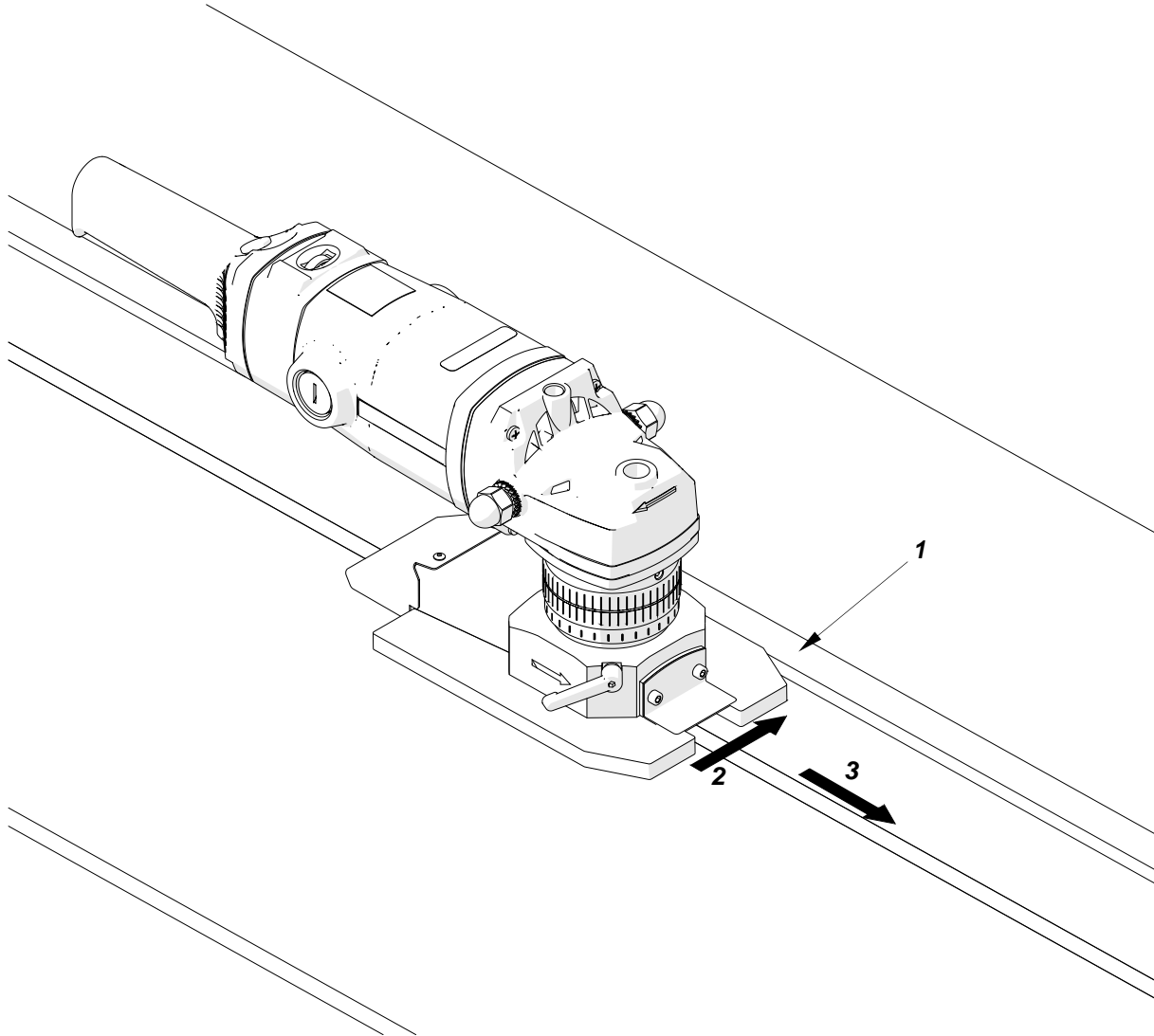
Start from low milling depth values and increase it gradually. Press the guide unit towards the material surface. Guide the machine in direction indicated by the arrow on the guide unit (1).



If an overload occurs, the motor shuts off. This may occur when depth is too large for the hardness of material or when the cutting inserts are dull. Therefore, to prevent overload, machine hard materials in multiple passes and replace the inserts before they become dull. Also, take periodic breaks during work and keep the air vents unclogged. This prevents motor overheating and damage to the windings.

In order to assure the machining stability use the guide, made for example from the metal profile fixed to the surface of machined material.

Position the guide (1) in parallel to the machined weld and in such distance that the head axis is above the weld. Press the milling machine to the guide (2) and start machining in direction indicated by the arrow on the guide unit (3).

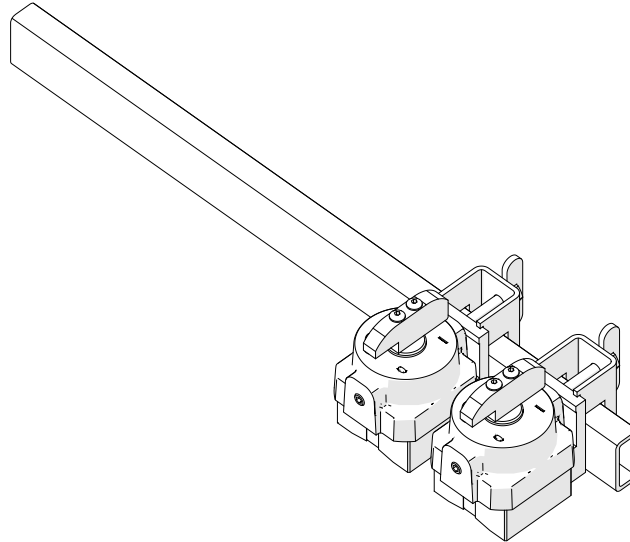


After the work is finished, release the power switch to turn off the motor. Then, wait until the rotation stops and unplug the power cord.

Clean the machine with soft, lint-free cloth, without any chemical agents. Chips may be removed with use of soft brush.

4.8. Magnetic guide

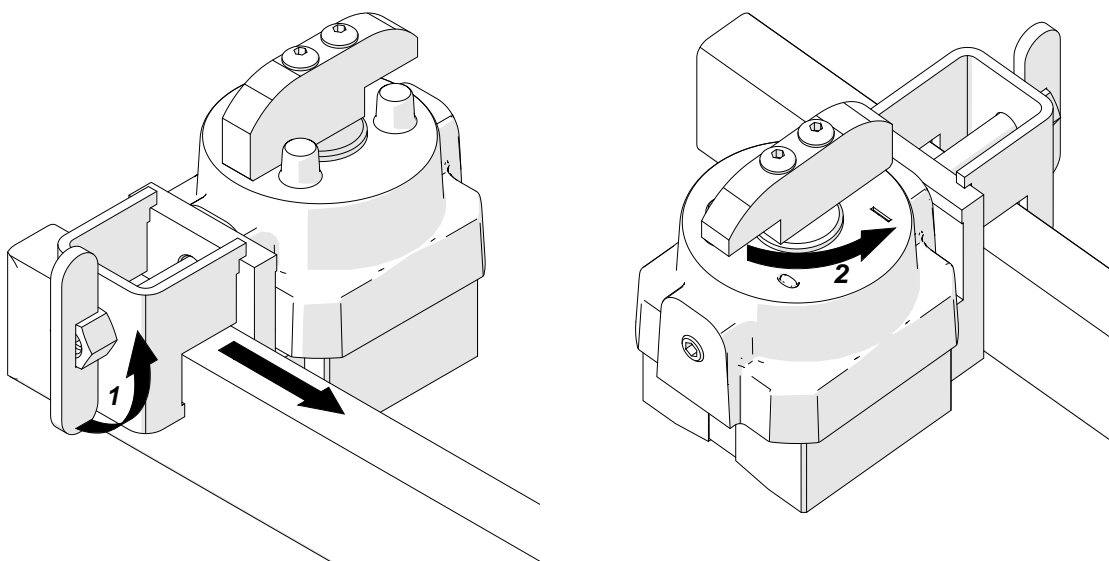
The milling machine is supplied with the guide allowing for fixing to the ferromagnetic material surface using the magnetic clamps.



Fixing method:

Loosen the tightening screws (1) and set the clamps in appropriate positions. Retighten the tightening screws.

After positioning the guide is required place rotate the knobs of magnetic clamps (2) to fix the guide to the material surface.



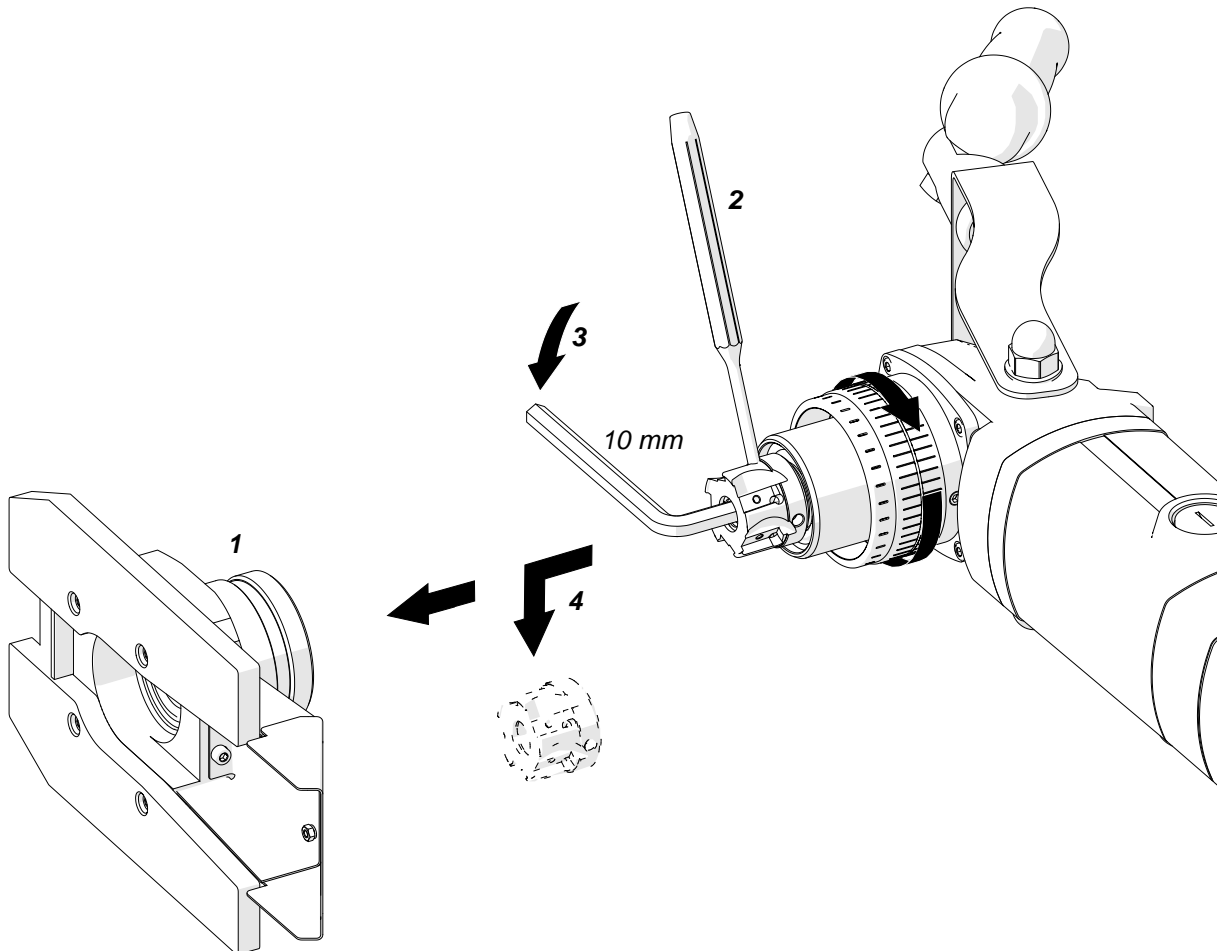
4.9. Head disassembly



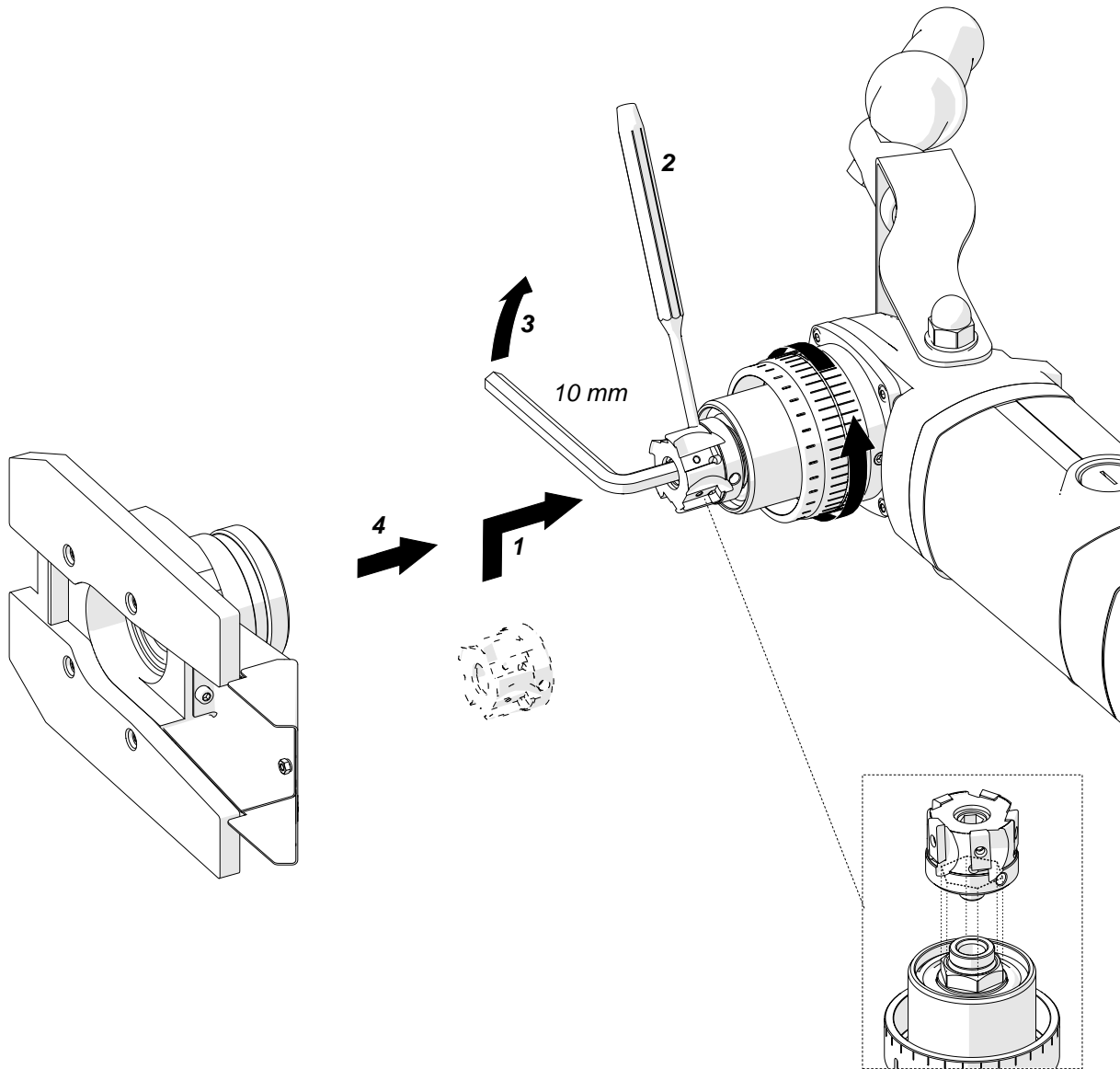
**Before disassembly remove chips from the guides.
Failure to do so may result in contamination of thread in
the guide unit.**

When it is required to disassemble the guide unit proceed as below.

Unplug the power cord. Position the machine in such way that the head is horizontal. Disassemble the guide unit (1) as described in section 4.3. Insert the tip of drift (2) into the milling head hole to stabilize it. Use 10 mm wrench to unscrew the milling head fixing screw (3). Remove the milling head from the spindle (4).



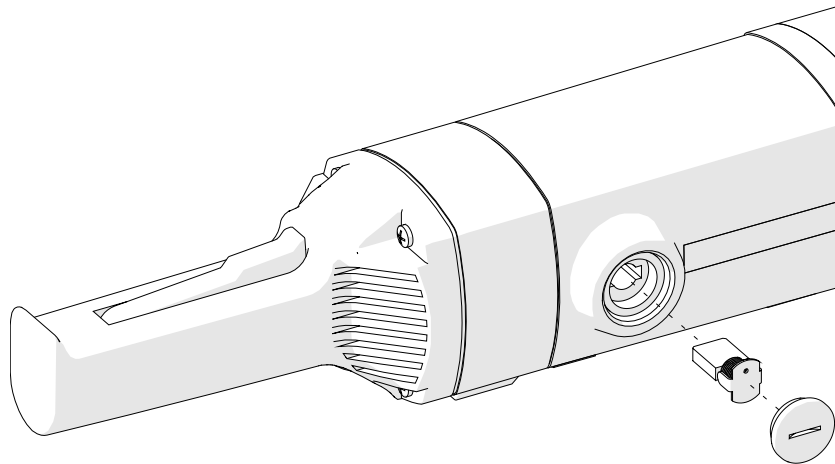
To assemble the head proceed in the opposite sequence as during the disassembly. Make sure that the milling head is aligned with the spindle.



4.10. Replacing the brushes

Every 200 work hours check the condition of the brushes. To do this, unplug the power cord and then remove the cap and the brush. If the brush is shorter than 10 mm (0.4"), replace both brushes with new ones.

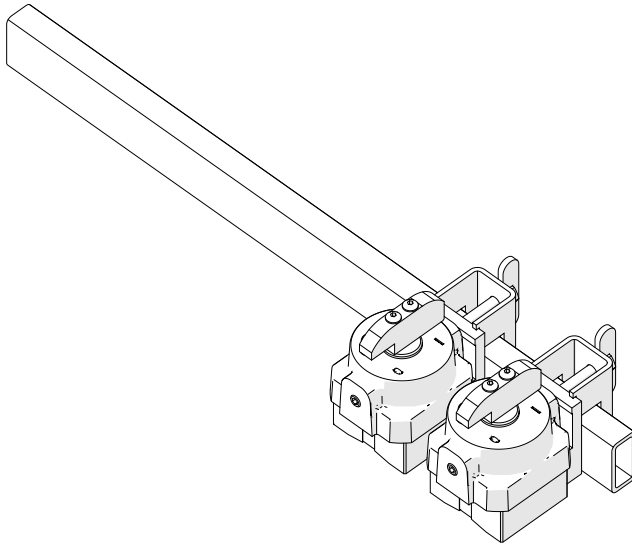
Perform assembly in the opposite sequence. Then let the motor operate with no load for 20 minutes.



4.11. Cleaning

Clean the milling machine after work. Position the machine in such way that the head is horizontal and remove chips with use of soft brush.

Clean the machine body with soft, lint-free cloth, without any chemical agents.

5. ACCESSORIES

Magnetic guide

Part number:

PRW-0761-99-00-00-0

6. DECLARATION OF CONFORMITY

Declaration of conformity

**JEI DRILLING & CUTTING SOLUTIONS
UNIT 21 EMPIRE BUSINESS PARK
ENTERPRISE WAY, BURNLEY
LANCASHIRE, BB12 6LT**

We declare with full responsibility that:

Weld milling machine WS-30 WM

is manufactured in accordance with the following standards:

- EN ISO 12100: 2010
- EN 62841-1: 2015
- EN 55014-1: 2017

and satisfies the regulations of the guidelines: 2014/30/EU, 2006/42/EC, 2011/65/EU.

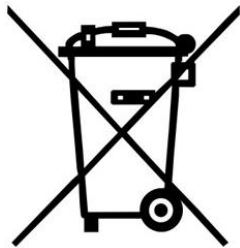
Person authorized to compile the technical file:



Burnley, 17 August 2023

Managing Director

7. ENVIRONMENTAL PROTECTION



In accordance with the European Directive 2012/19/EU, this device is marked with the symbol of the crossed-out waste bin. This marking means that the equipment must not be disposed of with other household waste after the service life. The user must return the product to a collection point for used electrical and electronic equipment. The collectors of used equipment, including local collection points, shops and municipal units create an appropriate system for returning such equipment. Correct handling of used electrical and electronic equipment helps in avoiding damage to health and the environment, which may result from the presence of dangerous components and incorrect storage and processing of such equipment.

8. WARRANTY CARD**WARRANTY CARD No.....**

..... in the name of Manufacturer warrants the BM-30 WM milling machine to be free of defects in material and workmanship under normal use for a period of 12 months from the date of sale.

This warranty does not cover tools as well as damage or wear that arise from misuse, accident, tampering or any other causes not related to defects in workmanship or material.

Serial number

Date of sale

Signature and stamp of the seller

0.01 / 27 October 2023**WE RESERVE THE RIGHT TO MAKE CHANGES IN THIS MANUAL WITHOUT NOTICE**

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