

OPERATOR'S MANUAL
STEELBEAST BM-7
BEVELLING MACHINE



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1. GENERAL INFORMATION

1.1. Application

The BM-7 is a bevelling machine designed to mill edges of plates and pipes made of steel or aluminum alloys.

The machine allows you to bevel workpieces with a thickness of at least 1.5 mm (1/16") to the maximum bevel width of 7 mm (9/32") and, depending on the milling head used, at the angle of 30° or 45°. The included milling head allows you to bevel not only at the angle of 45° but also with a radius of 2, 3, 4, or 5 mm when used with radius inserts.

The minimum diameter of a hole to be machined is 35 mm (1-3/8"). Optional milling heads allow you to machine holes with diameters of at least 22.5 mm (7/8"), and a sticker protects aluminum workpieces against scratches.

1.2. Technical data

Voltage	1~ 110–120 V, 50–60 Hz 1~ 220–240 V, 50–60 Hz
Power	1080 W
Rotational speed without load	6200 rpm
Rotational speed with load	3200 rpm
Protection level	IP 20
Protection class	II
Maximum bevel width (<i>b</i>)	7 mm (9/32", Fig. 1)
Bevel angle (β , depends on the milling head used)	30° (option), 45° (Fig. 1)
Minimum workpiece thickness	1.5 mm (1/16")
Minimum hole diameter	22.5 mm (7/8", option), 35 mm (1-3/8")
Edge radius	2 mm, 3 mm, 4 mm, 5 mm (Fig. 1)
Noise level	More than 70 dB
Vibration level	Machine harmful for health. Vibration level exceed 2,5m/s2 Take periodic breaks during operation.
Required ambient temperature	0–40°C (34–104°F)
Weight	6.1 kg (13 lbs)

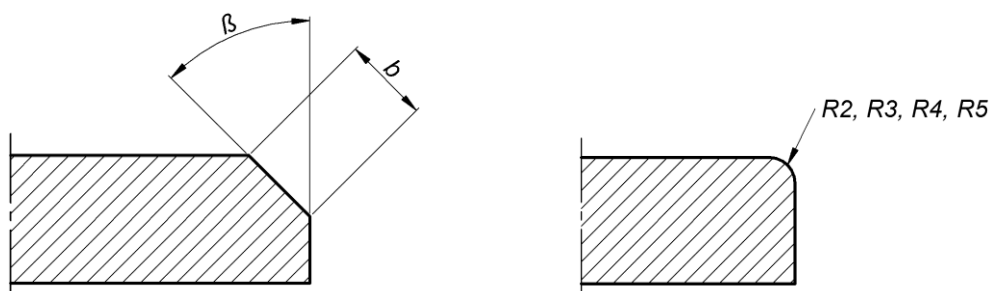
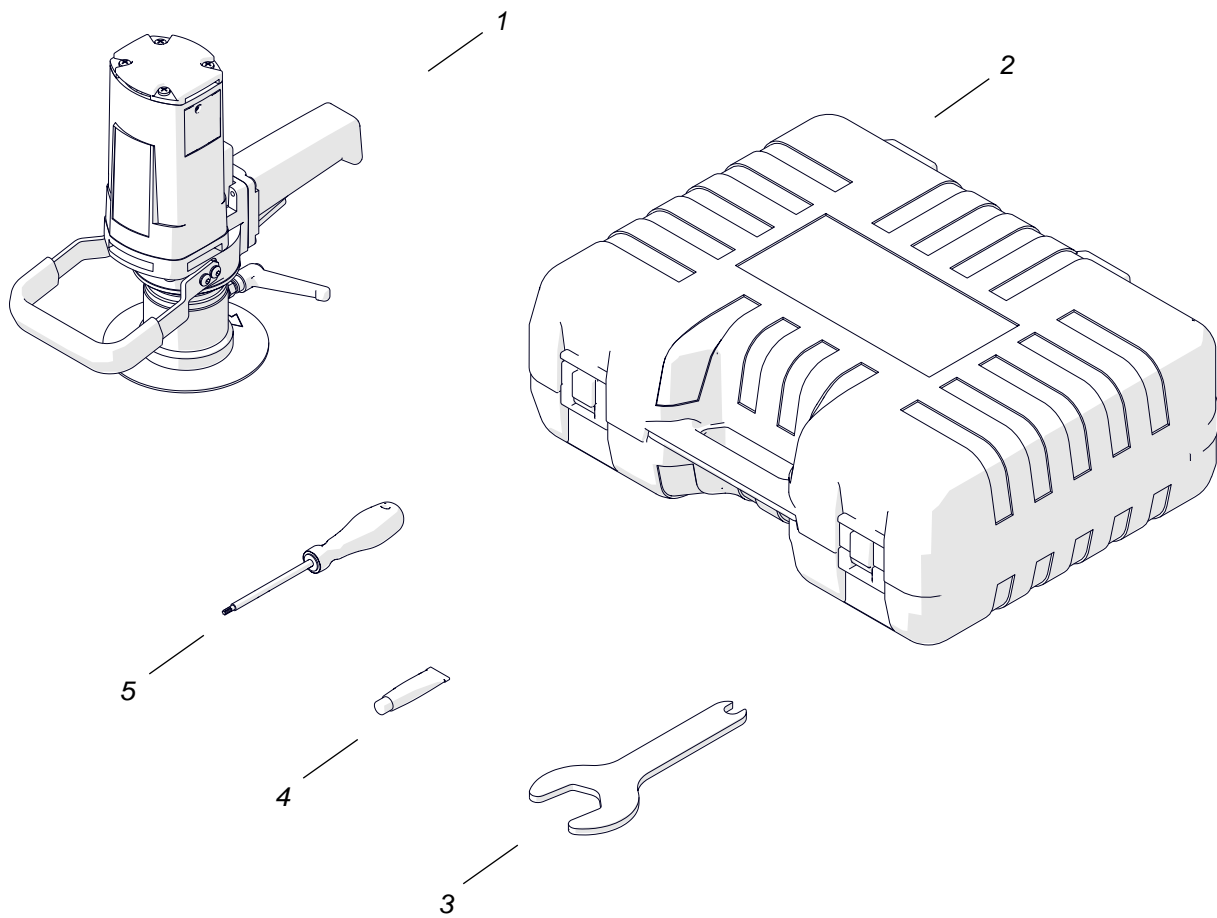


Fig. 1. Bevel dimensions

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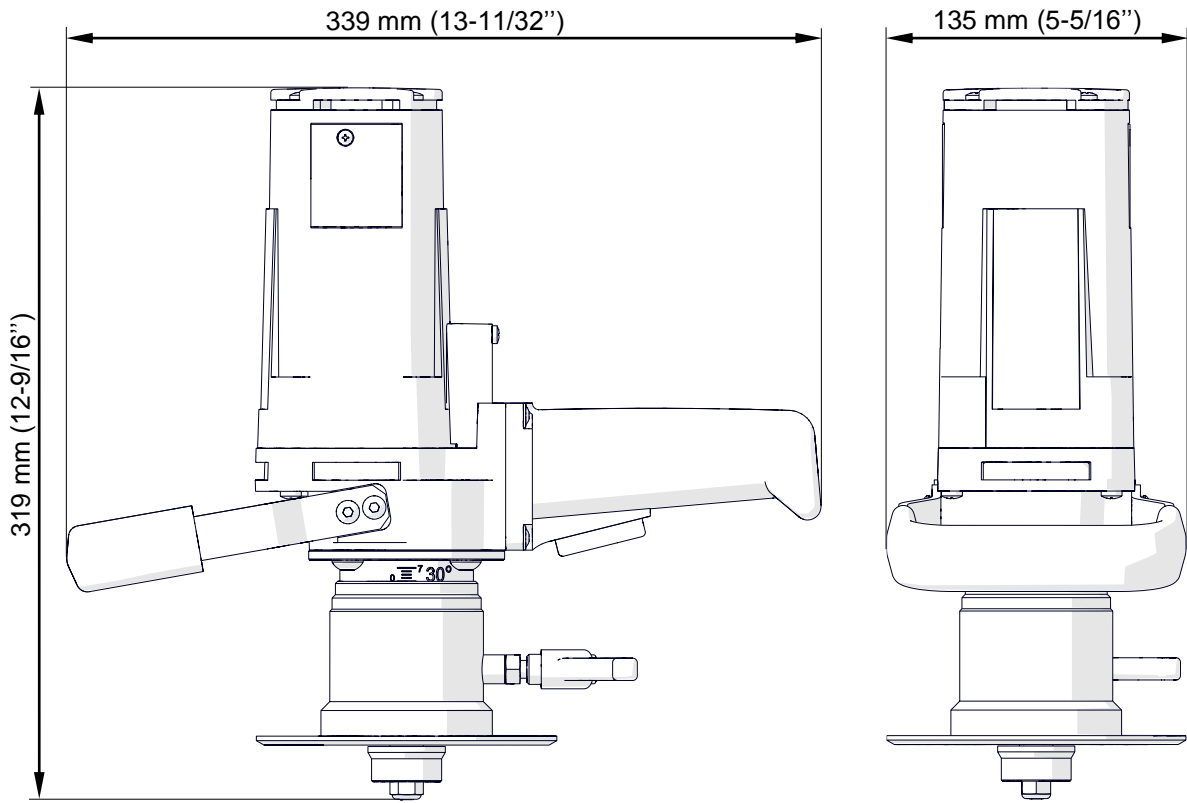
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1.3. Equipment included

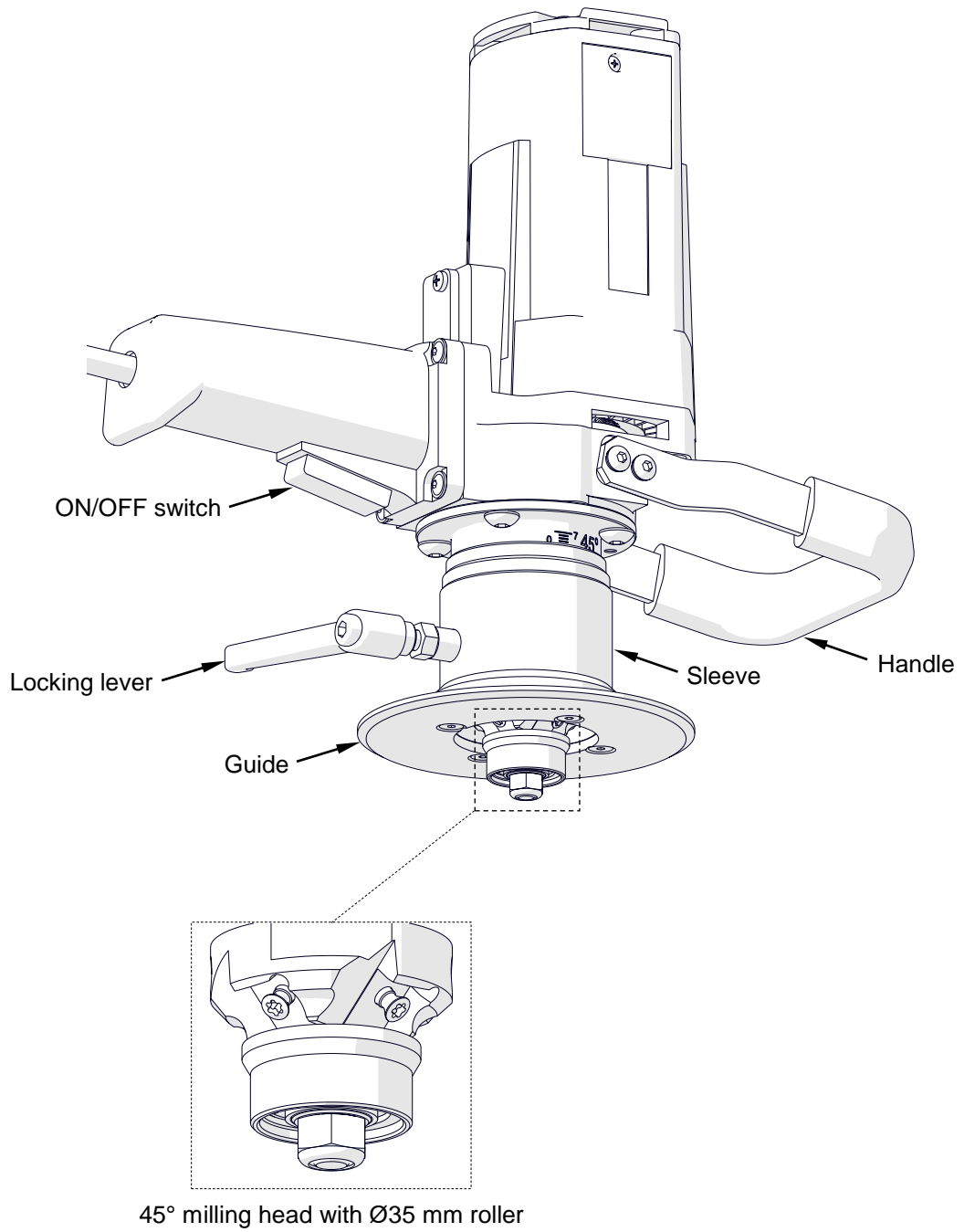


1	Beveling machine (includes 45° milling head with Ø35 mm roller, without cutting inserts)	1 unit
2	Plastic box	1 unit
3	Special flat wrench	1 unit
4	Grease for screws 5 g (0.2 oz)	1 unit
5	Torx T15 screwdriver	1 unit
–	Operator's Manual	1 unit

1.4. Dimensions



1.5. Design



2. SAFETY PRECAUTIONS

1. Before beginning, read this Operator's Manual and complete proper occupational safety and health training.
2. Use the machine only in applications specified in this Operator's Manual.
3. The machine must be complete and all parts must be genuine and fully operational.
4. The specifications of the power source must conform to those specified on the rating plate.
5. Never carry the machine by the cord and never pull the cord because this may damage it and result in electric shock.
6. Untrained bystanders must not be present near the machine.
7. Before beginning, make sure that the correct is the condition of the machine, power source, power cord, plug, control components, and milling tools.
8. Keep the machine dry, and never expose it to rain, snow, or frost.
9. Keep the work area well lit, clean, and free of obstacles.
10. Never use near flammable liquids or gases, or in explosive environments.
11. Use only tools specified in this Operator's Manual.
12. Never use tools that are dull or damaged.
13. Install the cutting inserts and milling head securely. Remove adjusting keys and wrenches from the work area before connecting the machine to the power source.
14. Never use the machine in upside down position with the milling head facing up.
15. If the cutting edge of the insert is worn, rotate the insert in the socket by 90° or, if all edges are worn, replace with a new insert specified in this Operator's Manual.
16. Before every use, inspect the machine to ensure it is not damaged. Check whether any part is cracked or improperly fitted. Make sure to maintain proper conditions that may affect the operation of the machine.
17. Always use eye and hearing protection, non-skid footwear, and protective clothing during operation. Do not wear loose clothing.
18. Do not touch moving parts or metal chips formed during milling. Prevent anything from being caught in moving parts.
19. After every use, remove metal chips from the machine, especially from the milling head. Never remove chips with bare hands. Clean the machine with a cotton cloth without using any agents.

20. Cover steel parts with a thin anti-corrosion coating to protect the machine from rust when not in use for any extended period.
21. Maintain the machine and install/remove parts and tools only when the machine is unplugged from the power source.
22. Repair only in a service center appointed by the seller.
23. If the machine falls from any height, is wet, or has any other damage that could affect the technical state of the machine, stop the operation and immediately send the machine to the service center for inspection and repair.
24. Remove from the worksite and store in a secure and dry location when not in use.

3. STARTUP AND OPERATION

3.1. Installing and removing the cutting inserts

Unplug the machine from the power source, and place the machine upside down. Unlock the lever (1, Fig. 2), and then rotate the sleeve (2) to lower it as far as possible and access the milling head. Use the special wrench 3 to loosen the roller, and then use the screwdriver 4 to unscrew the inserts. Next, clean the sockets, push the inserts into the sockets, and then retighten the inserts and roller. The entire bottom of the insert must be in full contact with the socket (5).

To change the cutting edge, unscrew the insert, rotate it by 90°, push into the socket, and tighten. If all cutting edges are worn, replace the inserts with new ones.

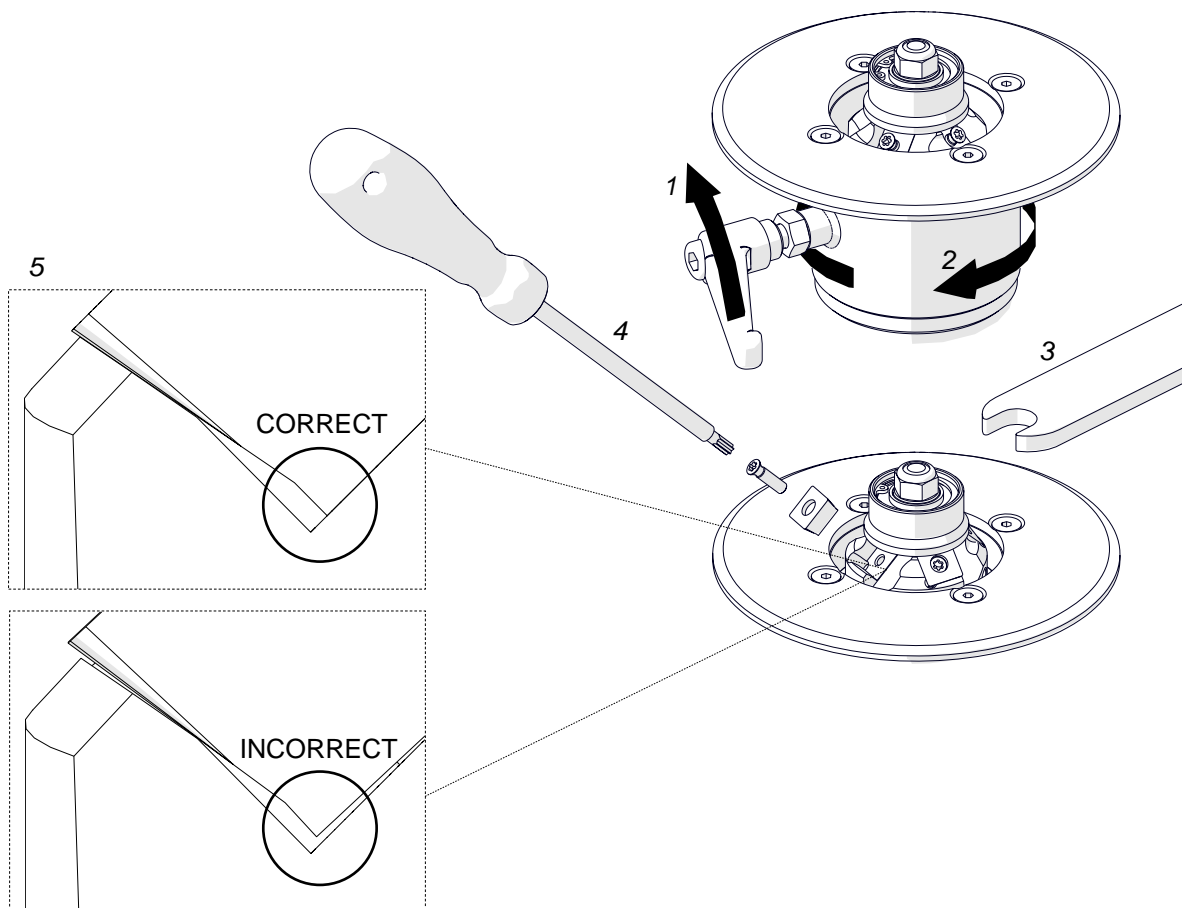


Fig. 2. Installing the cutting inserts

Clean the threads once a week and, if necessary, grease the fixing screws for inserts with an agent (for instance copper paste) that will prevent the screws from blocking.

3.2. Installing and removing the milling head

Unplug the machine from the power source. To remove the milling head, unlock the lever (1, Fig. 3) and unscrew the sleeve (2, 3). Through the hole in the body insert a screwdriver 4 into the spindle to lock the spindle, and then use the special wrench to unscrew the milling head (5, 6).

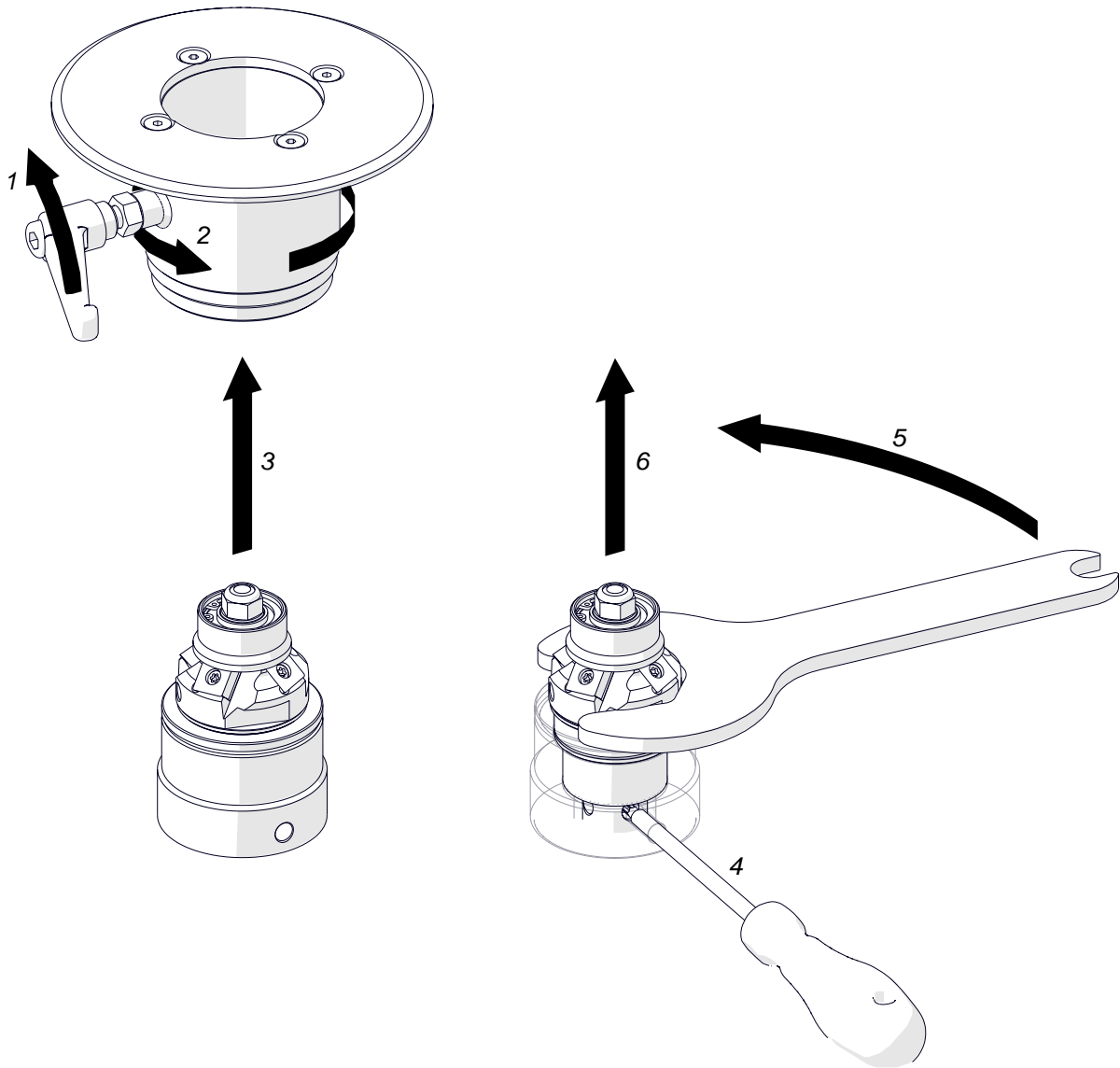


Fig. 3. Removing the milling head

To install, place the milling head onto the spindle (1), through the hole in the body insert the screwdriver 2 into the spindle to lock the spindle, and then use the special wrench to tighten the milling head (3). Next, screw in the sleeve (4, 5) and use the lever to lock the rotation (6).

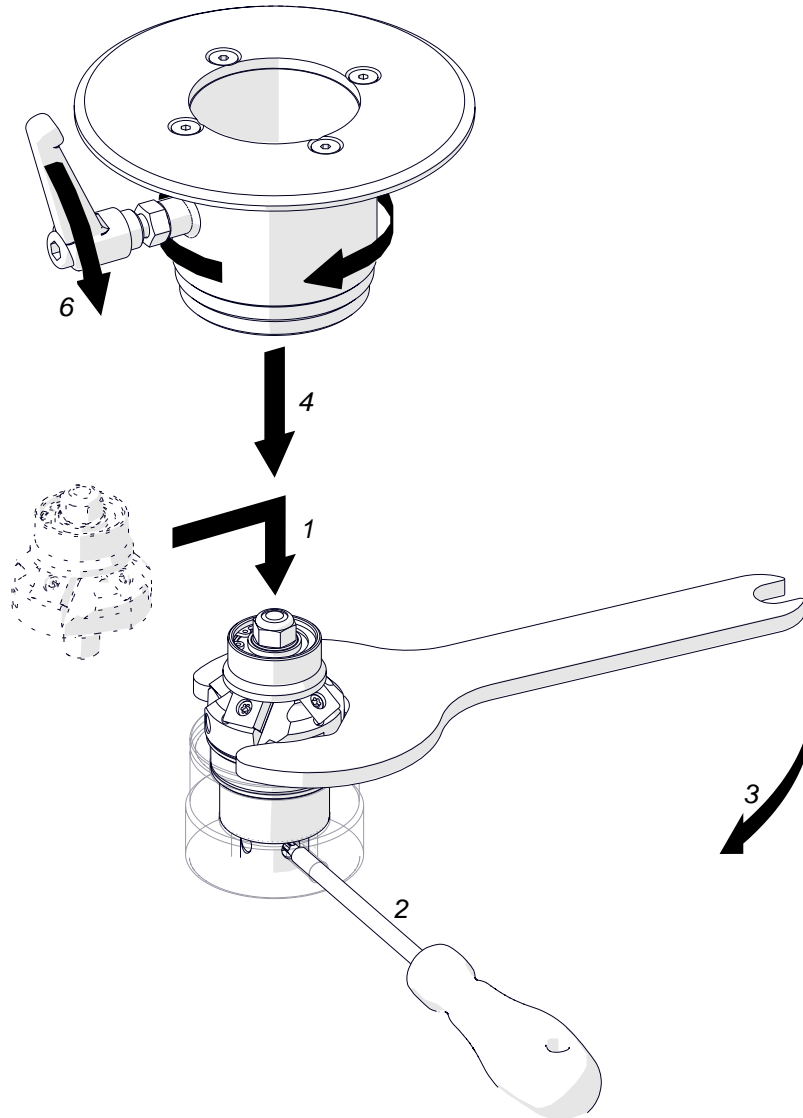


Fig. 4. Installing the milling head

3.3. Adjusting the bevel width

Unplug the machine from the power source. Next, loosen the lever (1, Fig. 5), rotate the sleeve (2) so that the scale 3 shows the required bevel width, and then retighten the screw.

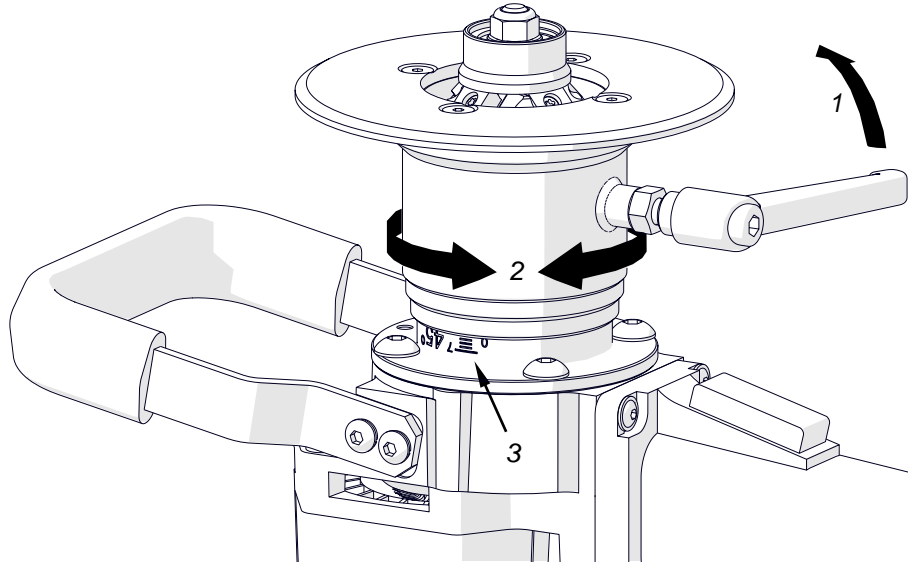


Fig. 5. Adjusting the bevel width

3.4. Adjusting the guide for bevelling with radius

Unplug the machine from the power source, and then in the manner described before loosen the lever and rotate the sleeve to set the surface 1 (Fig. 6) on the same height as the end of the cutting edge 2. You can also use an optional radius insert positioner to set the guide properly. Next, retighten the lever, bevel a test edge, and then readjust the position of the guide if necessary.

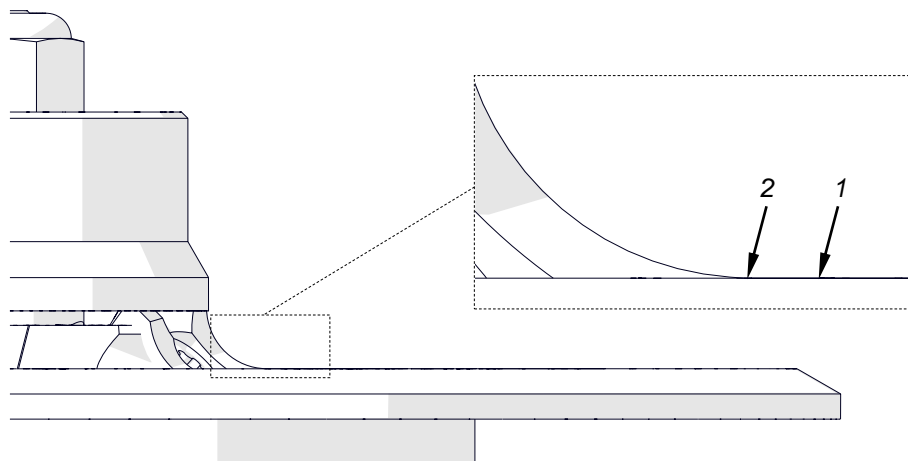


Fig. 6. Guide adjusted for bevelling with radius

3.5. Operating

Install the required milling head with cutting inserts, and set the required bevel width. Next, connect the machine to the power source, and place the machine on the left so that the milling head is not in contact with the workpiece (Fig. 7). The workpiece must be stable and well fixed.

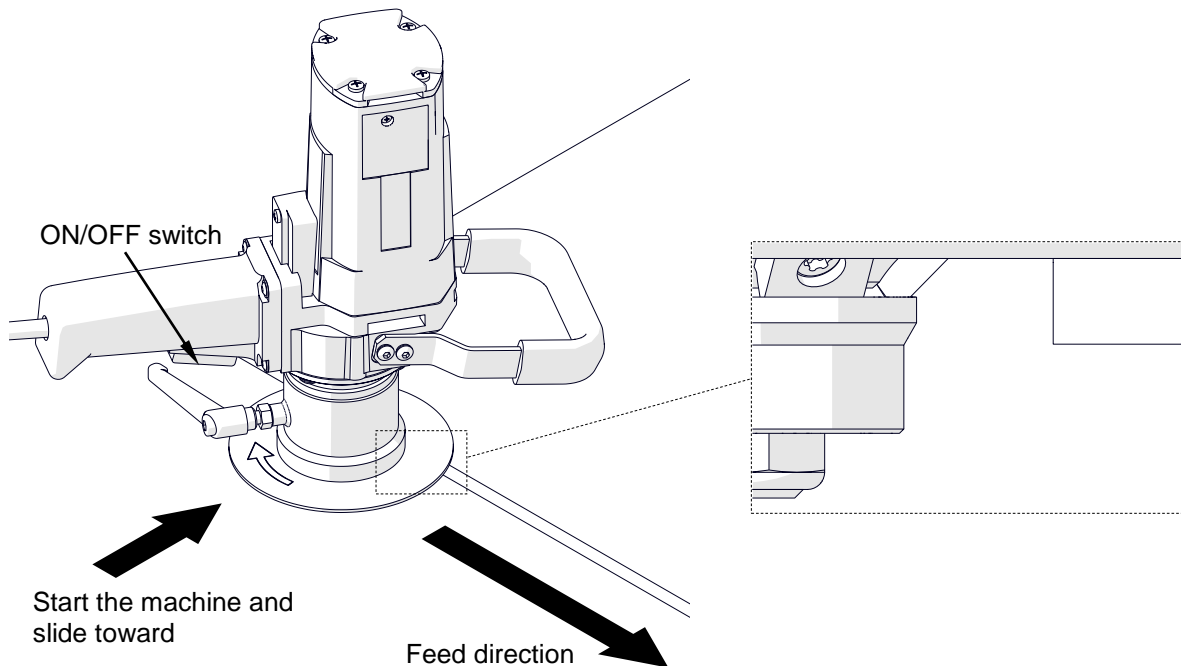


Fig. 7. Machine properly placed on a plate

Press and hold the ON/OFF switch to start the motor and wait a few seconds until the machine reaches the maximum rotational speed. Next, press the machine to the workpiece with both hands, slowly slide the machine toward the edge, and then slide the machine according to the counter-rotation, that is from left to right.

Bevel in two passes. The bevel width should be set to a value that will allow the feed of one meter per minute without significant effort.

Replace inserts before they become dull to prevent the motor from overloading. Additionally, take periodic breaks during operation to prevent the motor from overheating and damaging the windings.

After the work is finished, release the ON/OFF switch to turn off the motor, wait until the rotation stops, and unplug the machine from the power source.

Clean the machine with a cotton cloth without using any agents.

3.6. Replacing the brushes

Check the condition of the carbon brushes every 100 operation hours. To do this, unplug the machine from the power source, and unscrew the cover 1 (Fig. 8). Next, loosen the screw 2, pry off the spring holding the brush (3), and remove the brush (4). If the length of the brush is less than 5 mm (0.2"), replace both brushes with new ones.

To install brushes, proceed in reverse order. Make sure to place the terminal of the brush wire 5 between the washer 6 and the terminal of the motor wire 7. After the replacement, run the motor without load for 20 minutes.

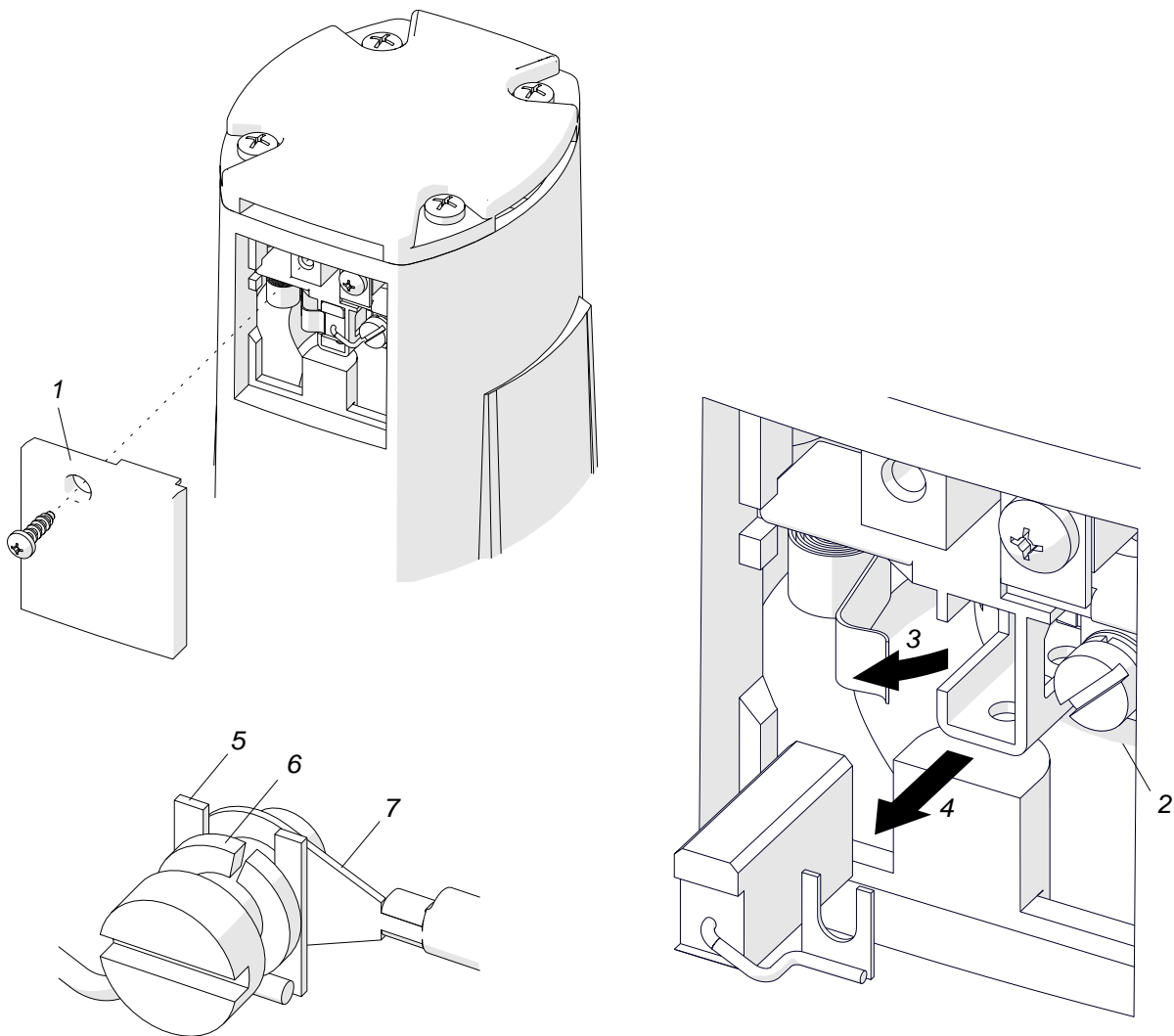


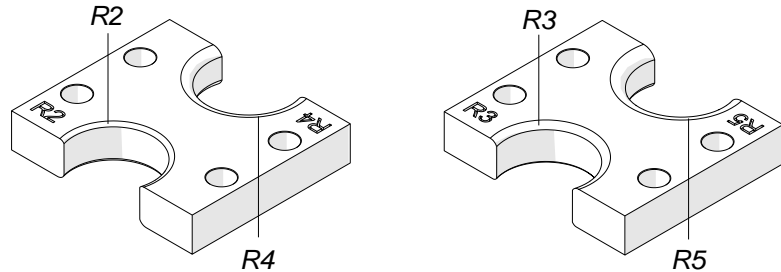
Fig. 8. Replacing the brushes

4. ACCESSORIES

4.1. Radius insert positioner

Allows the guide to be set properly for bevelling with a radius of 2, 3, 4, or 5 mm.

Part number:
UST-0509-16-00-00-0



Unplug the machine from the power source, place the machine upside down, and then lower the sleeve to access the cutting inserts. Next, place the positioner from the top (1, Fig. 9) so that the edge marked with a given radius is aligned with the edges of three cutting inserts with the same radius (2). Finally, rotate the sleeve (3) so that the guide makes contact with the positioner (4).

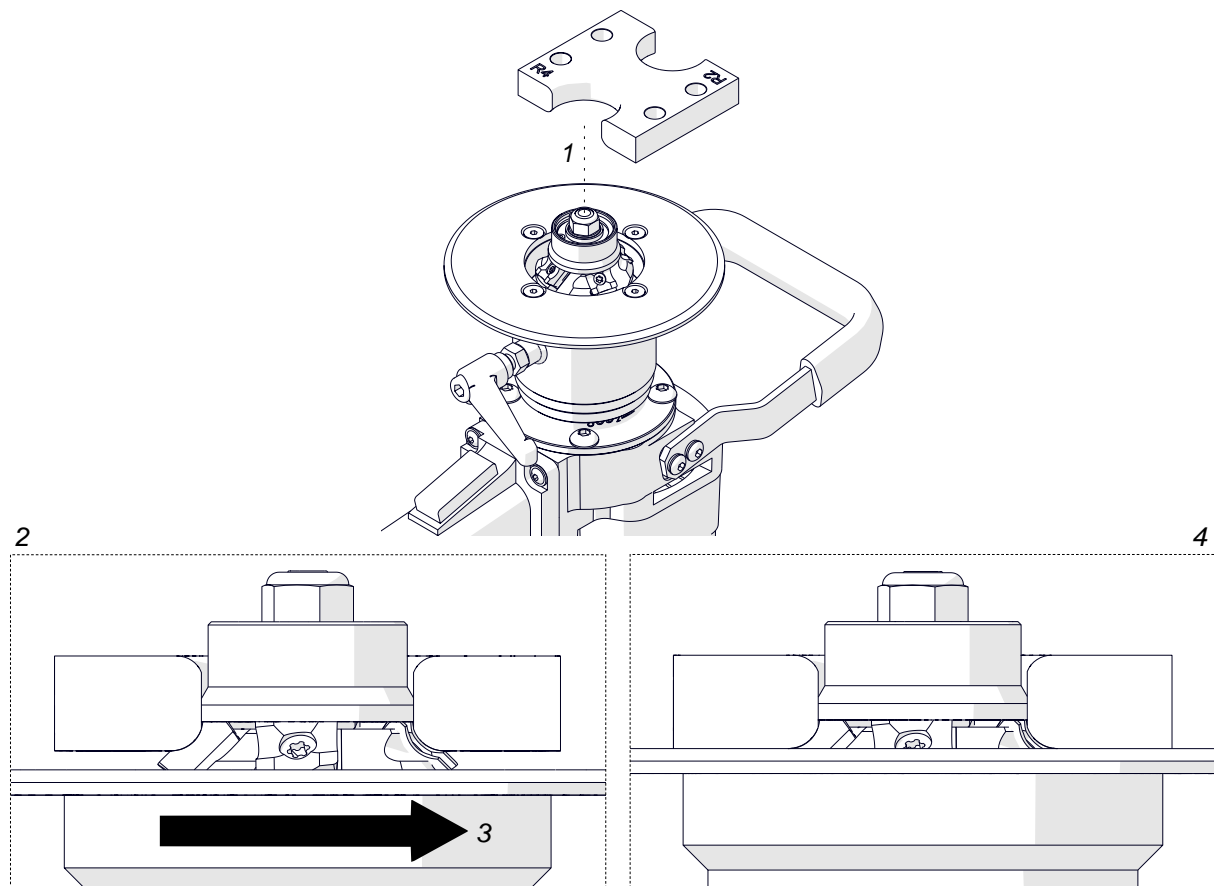
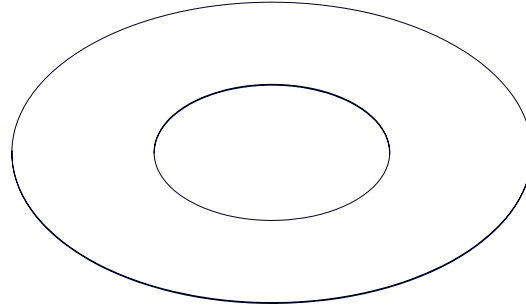


Fig. 9. Adjusting the guide for bevelling with radius

4.2. Anti-scratch guide sticker

Self-adhesive guide sticker against scratches is dedicated for aluminum bevelling. If the sticker is removed, use petroleum ether to clean excess glue from the guide.

Part number:
NKL-0540-15-00-00-0



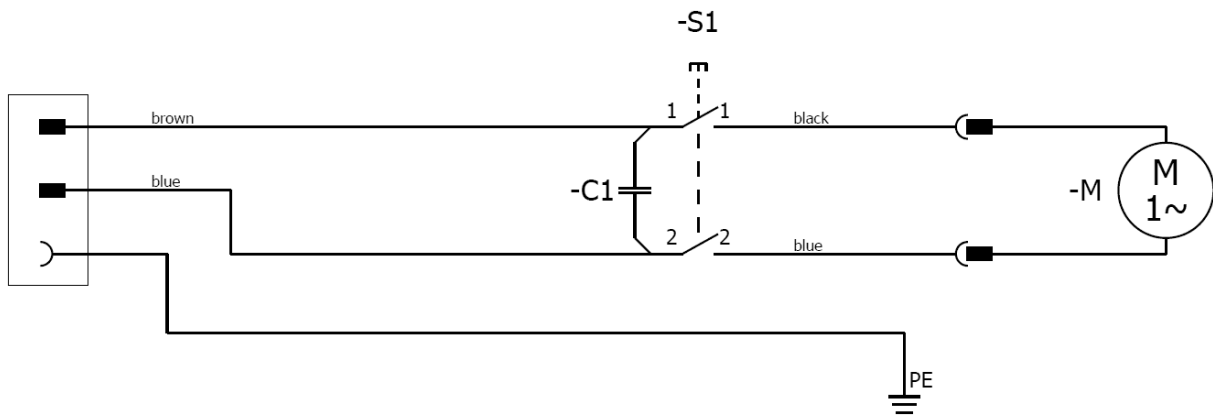
4.3. Milling tools

Part number	Part name
GLW-0540-09-00-00-0	30° milling head (includes: Ø35 mm roller, fixing screws for inserts; 4 cutting inserts required)
PLY-000391	Cutting insert for steel (sold 10 per box) for GLW-0540-08-00-00-0 and GLW-0540-09-00-00-0
PLY-000423	Cutting insert for aluminum (sold 10 per box) for GLW-0540-08-00-00-0 and GLW-0540-09-00-00-0
PLY-000360	R2 cutting insert (sold 10 per box); only for GLW-0540-08-00-00-0
PLY-000159	R3 cutting insert (sold 10 per box); only for GLW-0540-08-00-00-0
PLY-000160	R4 cutting insert (sold 10 per box); only for GLW-0540-08-00-00-0
PLY-000161	R5 cutting insert (sold 10 per box); only for GLW-0540-08-00-00-0
GLW-0540-16-00-00-0	45° milling head (includes: Ø22.5 mm roller, fixing screws for inserts; 3 cutting inserts required)
PLY-000282	Cutting insert (sold 10 per box) for GLW-0540-16-00-00-0

5. SPARE AND WEARING PARTS

Part number	Part name
GLW-0540-08-00-00-0	45° milling head (includes: Ø35 mm roller, fixing screws for inserts; 4 cutting inserts required)
RLK-0540-08-02-00-0	Ø35 mm roller for GLW-0540-08-00-00-0 and GLW-0540-09-00-00-0
RLK-0540-16-02-00-0	Ø22.5 mm roller for GLW-0540-16-00-00-0
SRB-000289	Fixing screw for insert for GLW-0540-08-00-00-0 and GLW-0540-09-00-00-0
SRB-000311	Fixing screw for insert for GLW-0540-16-00-00-0
WKT-000005	T15P screwdriver for fixing screws
SMR-000005	Grease for fixing screws (5 g, 0.17 oz)
SCZ-000009	Carbon brush 115 V / 230 V

6. WIRING DIAGRAM



7. DECLARATION OF CONFORMITY

EC Declaration of Conformity

We

***JEI GROUP Limited
Unit 21 Empire Business Park
Enterprise Way
Burnley, Lancashire
BB12 6LT***

declare with full responsibility that:

STEELBEAST BM-7 Beveling Machine

is manufactured in accordance with the following standards:

- EN 60745-1
- EN 55014
- EN ISO 12100

and satisfies safety regulations of the guidelines: 2004/108/EC, 2006/95/EC, 2006/42/EC.

Person authorized to compile the technical file:

David McFadden, Managing Director, JEI Group Ltd

Burnley, 01-12-2017

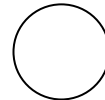
David McFadden
JEI Group Ltd

8. QUALITY CERTIFICATE

**Machine control card
BM-7 Beveling Machine**

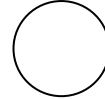
Serial number

Quality control



Adjustments, inspections

Quality control



9. WARRANTY CARD**WARRANTY CARD No.....**

..... in the name of Manufacturer warrants the BM-7 Bevelling 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 cutting inserts as well as damage or wear that arise from misuse, accident, tempering, or any other causes not related to defects in workmanship or material.

Date of production

Serial number

Date of sale

Signature of seller.....

1.00 / 01 December 2017***WE RESERVE THE RIGHT TO MAKE CHANGES IN THIS MANUAL WITHOUT NOTICE***