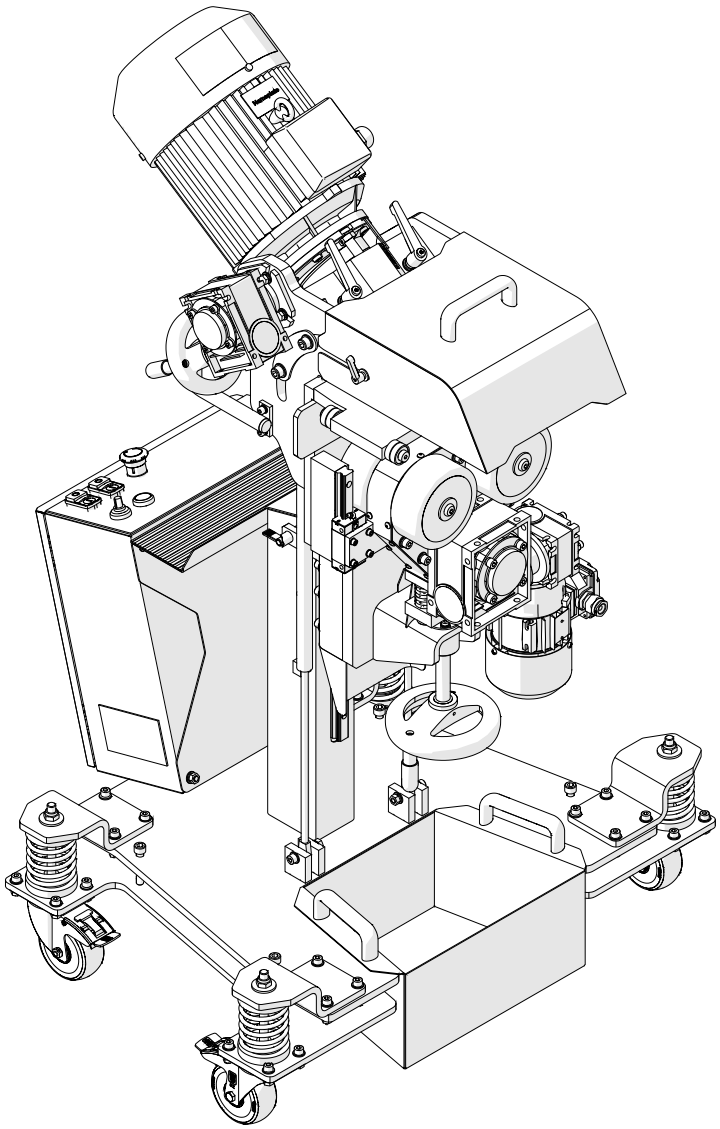
OPERATOR'S MANUAL

PLATE BEVELING MACHINE

ABM-50 DD

ABM-50 DD VARIO



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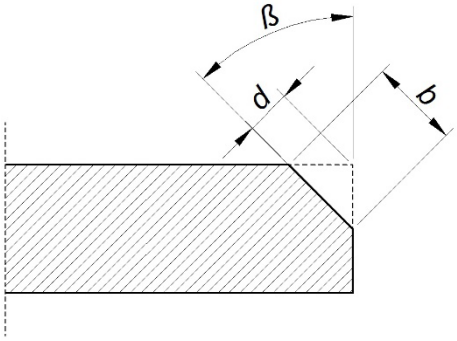
1. GENERAL INFORMATION

1.1. Application

The ABM-50 DD automatic feed beveling machine is designed to bevel long carbon steel sheets that are attached to a work table or supports. The workpieces can be machined at an angle of 15-70° and to the bevel width of up to 61/64″ (50 mm).
The machine is designed for use by a professional operator only.

1.2. Technical data

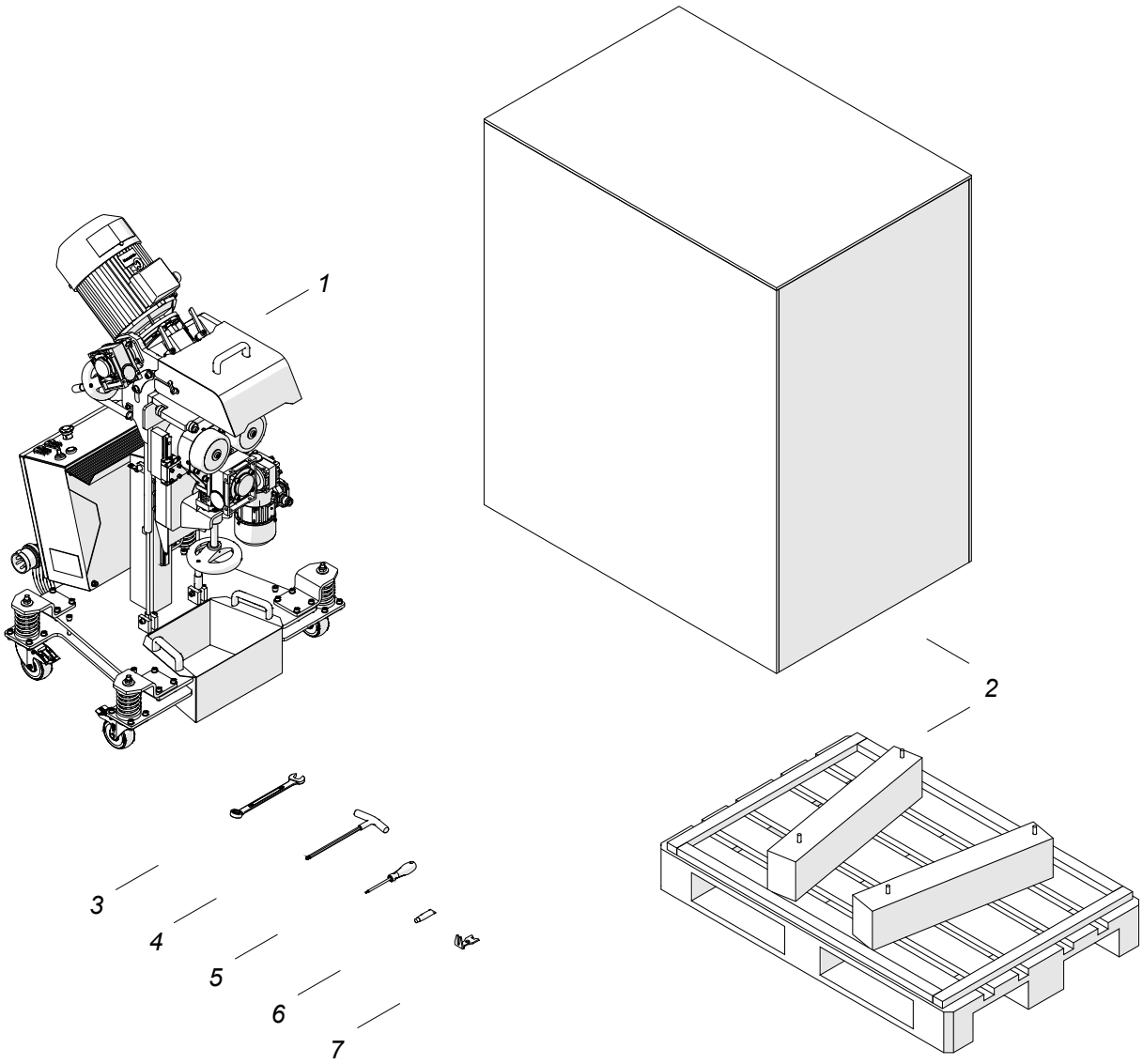
	ABM-50 DD	ABM-50 DD Vario
Voltage	3~ 400 V + PE, 50/60 Hz 3~ 480 V + PE, 50/60 Hz	3~ 400 V + PE, 50/60 Hz 3~ 480 V + PE, 50/60 Hz
Power	4 kW	4 kW
Spindle rotational speed (without load)	1450 rpm (50 Hz) 1750 rpm (60 Hz)	500-1450 rpm
Feed speed	0-3.94 ft/min (0-1.2 m/min)	0-3.94 ft/min (0-1.2 m/min)
Bevel angle (ß, Fig. 1)	15-70°	15-70°
Maximum bevel width (*b*, Fig. 1)	2” (50 mm)	2” (50 mm)
Maximum milling head penetration (‘d’, Fig. 1) per single pass	15/64″ (6 mm)	15/64″ (6 mm)
Sheet thickness	5/16-3 9/64″ (8-80 mm)	5/16-3 9/64″ (8-80 mm)
Protection level	IP 20	IP 20
Protection class	I	I
Required ambient temperature	32-104°F (0-40°C)	32-104°F (0-40°C)
Weight	573 lbs (260 kg)	573 lbs (260 kg)



β	15°	30°	45°	60°
b	1 41/64” (41.8mm)	1 13/16” (46.2 mm)	1 31/32” (50.2 mm)	1 51/64″ (46 mm)

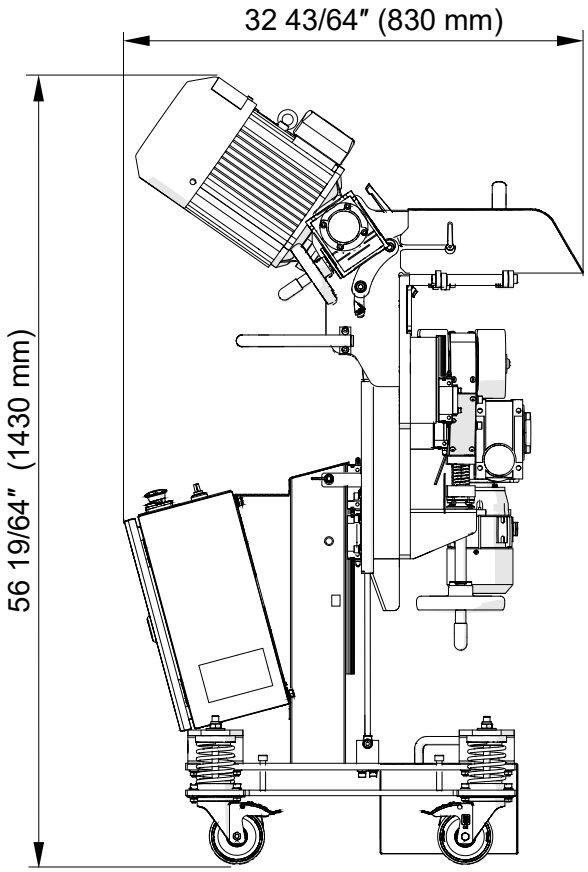
Rys. 1. Bevel dimensions; maximum bevel width depending on the angle

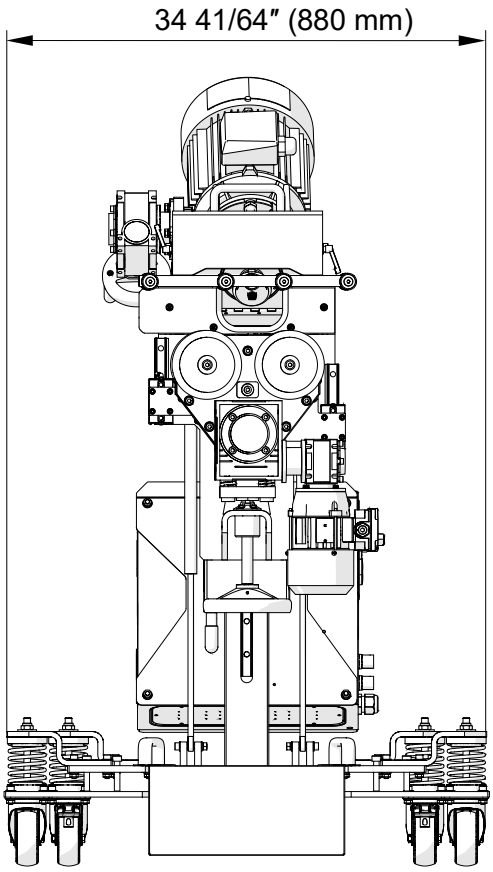
1.3. Equipment included



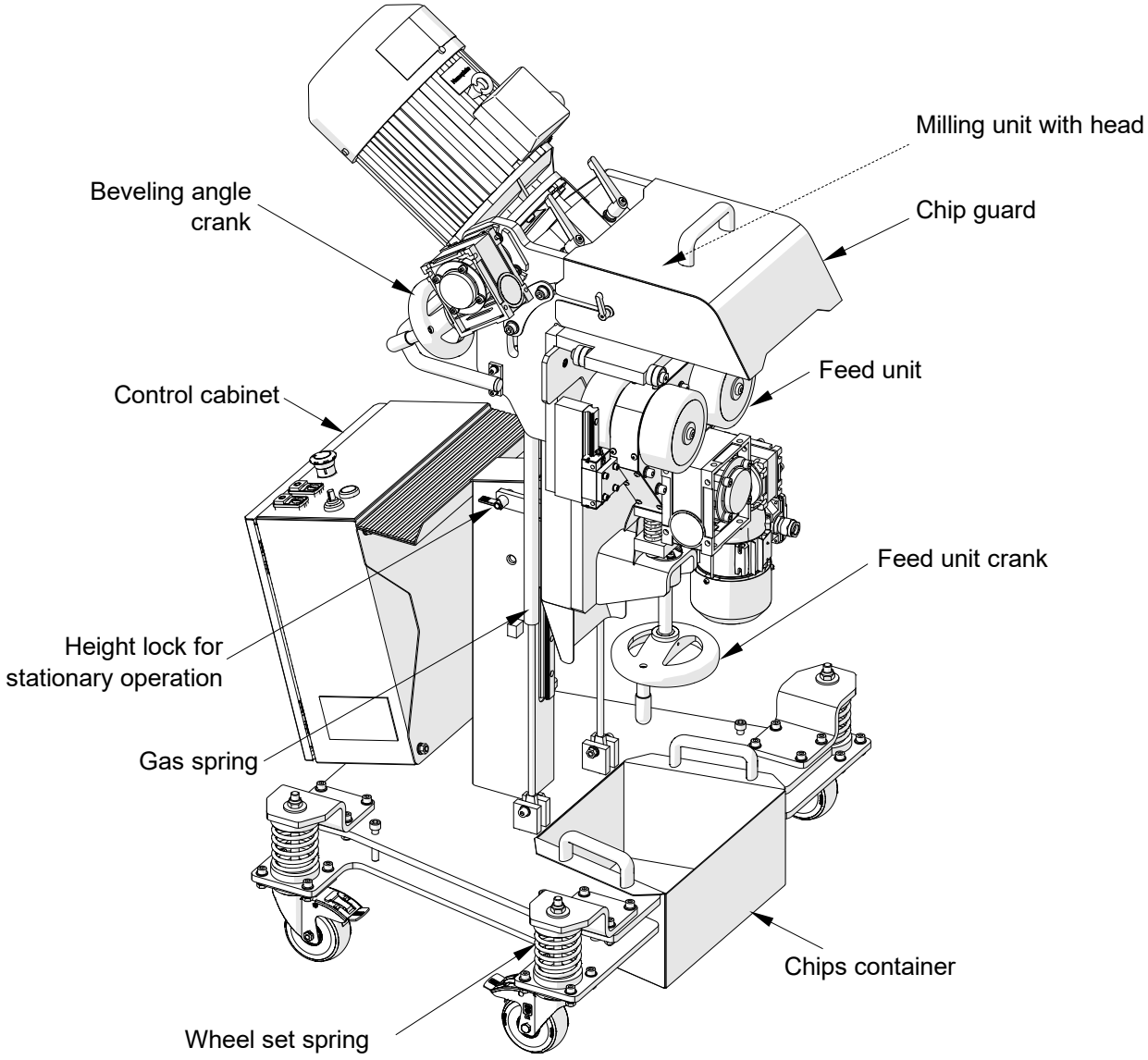
1	Beveling machine (with a milling head and 5 cutting inserts)	1 unit
2	Box with base and mounting brackets	1 unit
3	22 mm combination wrench	1 unit
4	8 mm hex T-wrench with ball end	1 unit
5	T15 torx screwdriver	1 unit
6	Grease for screws Molykote 1000 (0.17 oz/5g)	1 unit
7	Special wrench	1 unit
-	Operator’s Manual	1 unit

1.4. Dimensions

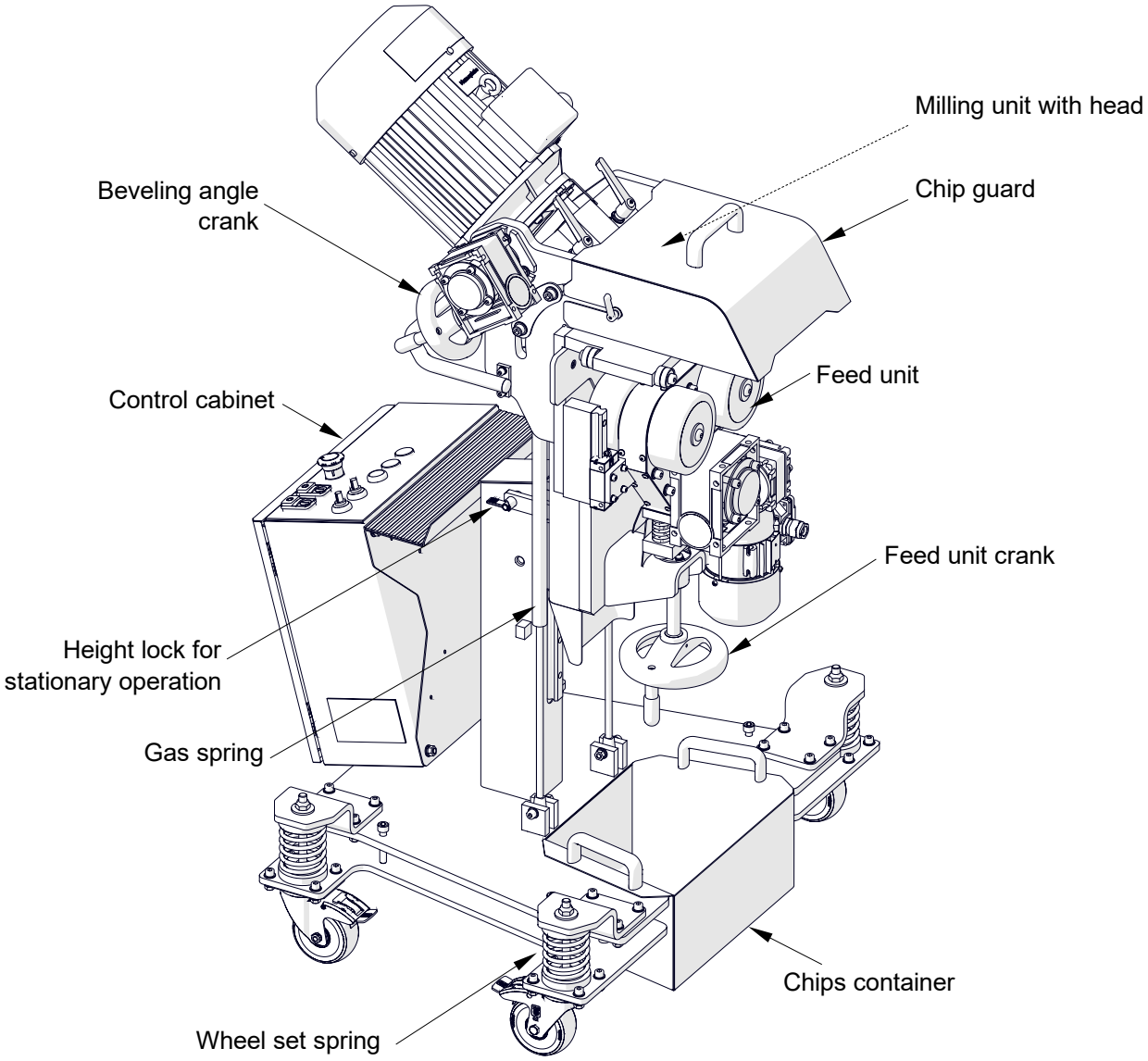




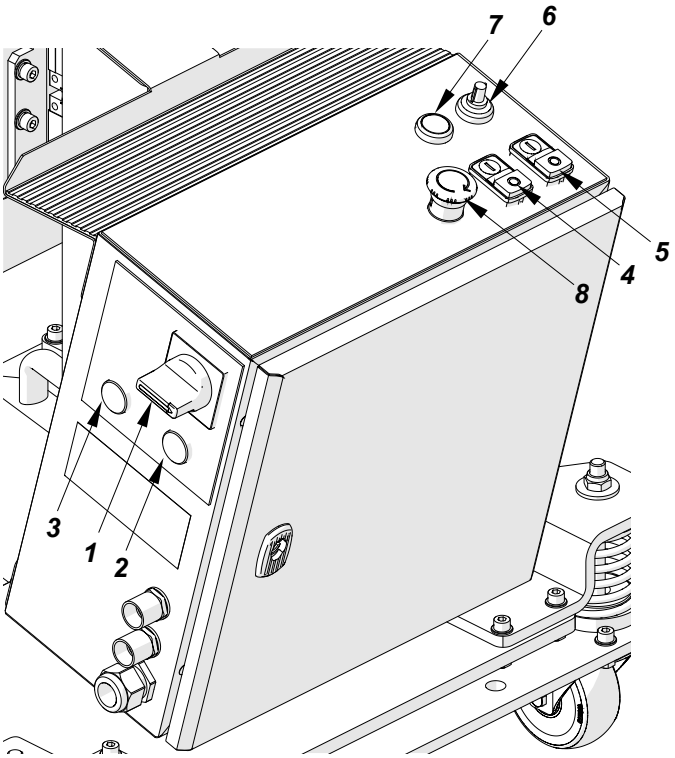
1.5. Design of ABM-50 DD



1.6. Design of ABM-50 DD Vario

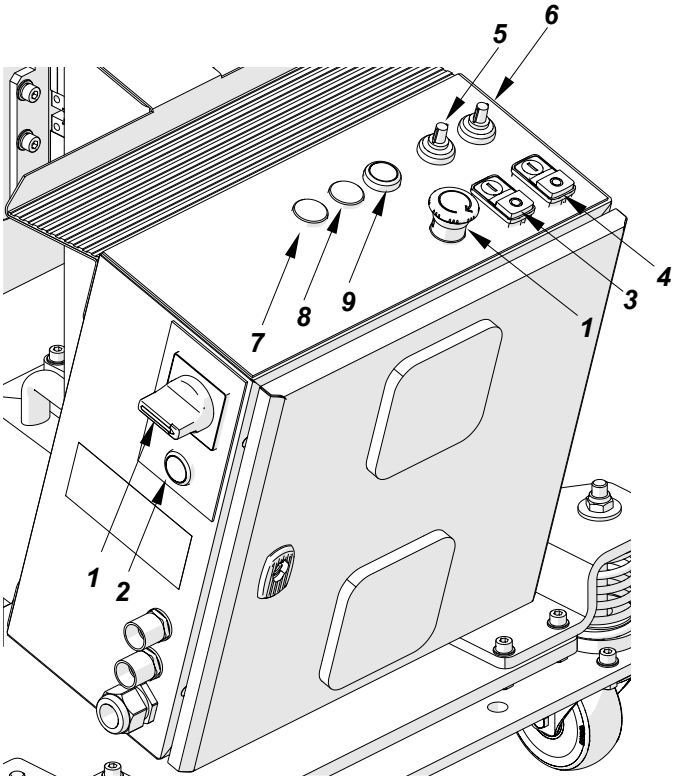


1.7. Control cabinet ABM-50 DD



1 Power switch
2 Power light
3 Phase sequence light
4 Spindle rotation switch
5 Feed switch
6 Feed speed adjustment
7 Overload light with button
8 Emergency switch

1.8. Control cabinet ABM-50 DD Vario



1 Power switch
2 Control system switch
3 Spindle rotation switch
4 Feed switch
5 Spindle speed adjustment
6 Feed speed adjustment
7 Overload light (level 1)
8 Overload light (level 2)
9 Overload light with button
10 Emergency switch

2. SAFETY PRECAUTIONS

1. Before use, read this Operator's Manual and complete 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. Connect the machine to a 3×400/480 V + PE power source. Protect the power source with a 25 A three-phase slow-blow fuse. If you use a residual-current circuit breaker, it must be of type B and of value of at least 300 mA.
6. Do not pull the cable. This may cause damage and electric shock.
7. Position the machine only vertically.
8. Keep untrained persons away from the machine.
9. Before each use, ensure the correct condition of the machine, power source, supply cable, plug, control cabinet, panel, and tools.
10. Before each use, make sure that no part is cracked or loose. Make sure to maintain correct conditions that can have an effect on the operation of the machine.
11. After the power is off, wait 3 minutes before you open the control cabinet.
12. After the power is off, wait 60 seconds before you turn the power on again.
13. Do not let chips get inside the control cabinet. Chips in the cabinet can cause damage to the machine.
14. Keep the machine dry. Do not expose the machine to rain, snow, or frost.
15. Keep the work area well lit, clean, and free of obstacles.
16. Make sure that the cutting inserts and the milling head are installed correctly. Remove wrenches from the work area before you connect the machine to the power source.
17. Do not use cutting inserts that are dull or damaged. Do not use milling head with damaged insert sockets.
18. If the cutting edge of an insert is worn, turn all inserts by 90°. If edges are worn, replace all inserts with new ones specified in this Operator's Manual.
19. Do not make bevels or machine sheets which parameters differ from those specified in the technical data.
20. Do not use near flammable materials or in explosive environments.

21. Use eye protection, ear protection, gloves, and protective clothing. Do not use loose clothing.
22. Do not touch chips or moving parts. Do not let anything catch in moving parts. Keep your hands away from the wheel.
23. After each pass remove chips from wheels.
24. After use, clean the machine, milling head, and rollers from chips with a dry cotton cloth and no chemical agents.
25. Maintain the machine and install/remove parts and tools only after you unplug the machine from the power source.
26. Repair only in a service center appointed by the seller.
27. If the machine falls, is wet, or has any damage, stop the work and immediately send the machine to the service center for check and repair.
28. Do not leave the machine unattended when it operates.
29. If you are not going to use the machine for an extended period, put anti-corrosion material on the steel parts.

3. SYMBOLS

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

Use eye protection

Use hearing protection

Read the Operator's Manual

Wear protective clothing

Warning against hand crush

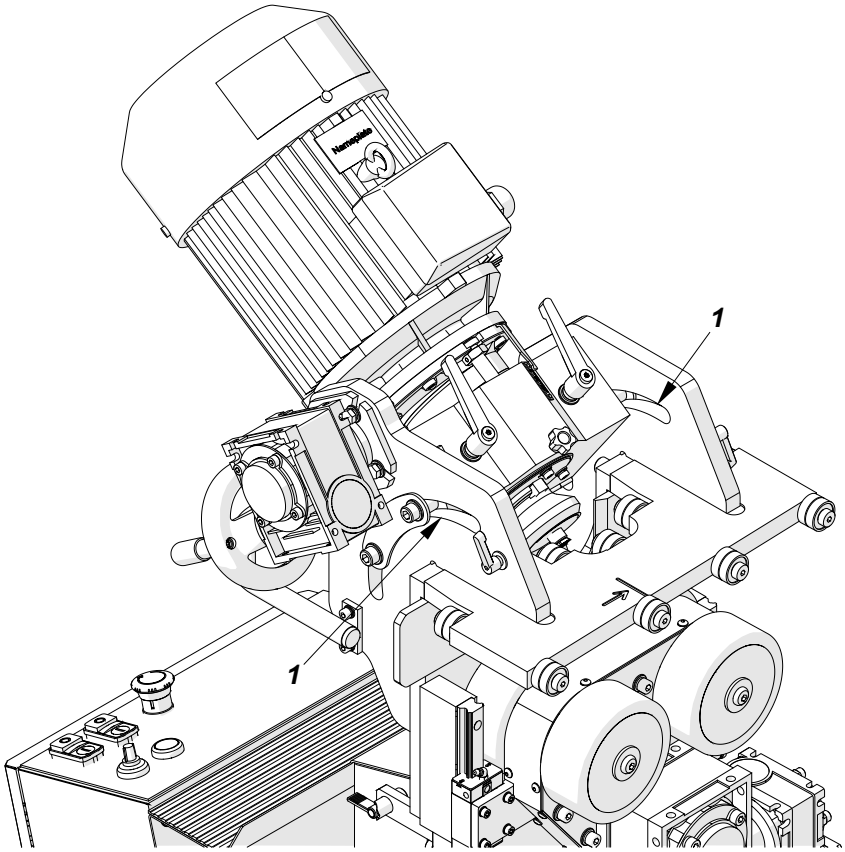
Warning against sharp elements

4. STARTUP AND OPERATION

4.1. Unpacking

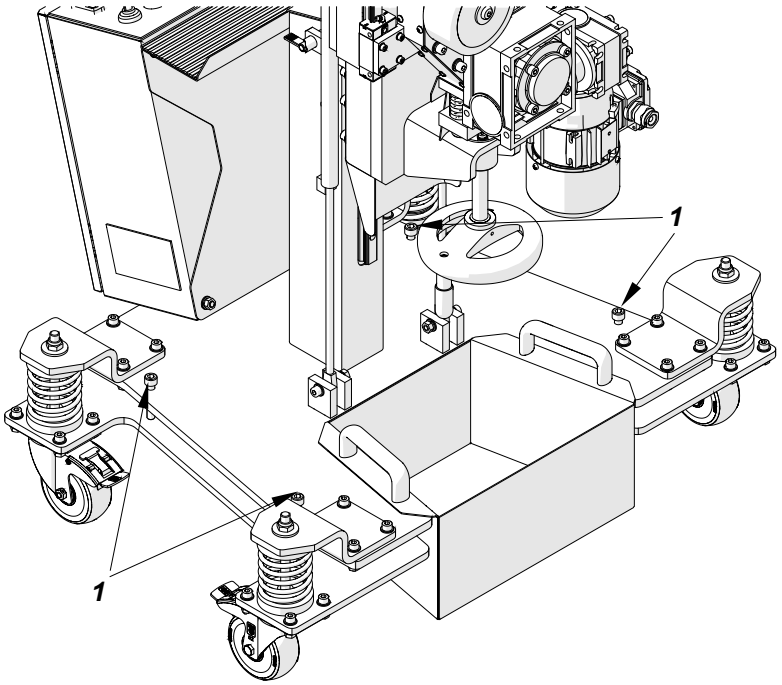
After removing the package remove the machine from the transport pallet. This can be done in two ways: by lifting it with an overhead crane and straps fixed in the cutouts (1) (after removing the chip guard) or with a forklift from underneath, using a narrow fork spacing.

Edges of cutouts are sharp. Secure the straps against the possibility of cutting.



The lifted machine should not be moved sideways, but the pallet should be removed from underneath it and the machine should be immediately lowered to the ground.

After removing the packaging, remove the 4 carriage screws (*1*) so that the machine can move along the plate to be processed and compensate for the unevenness of the ground.



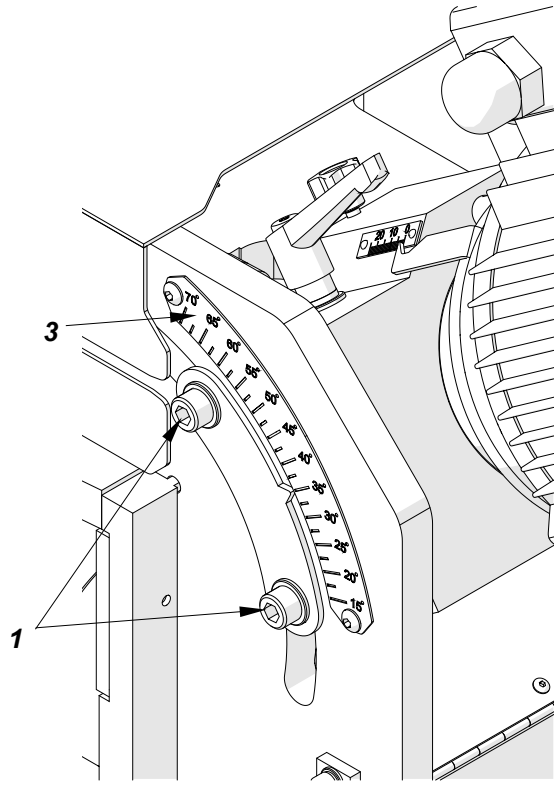
Keep the screws for future use. They are necessary for locking the machine during stationary operation.

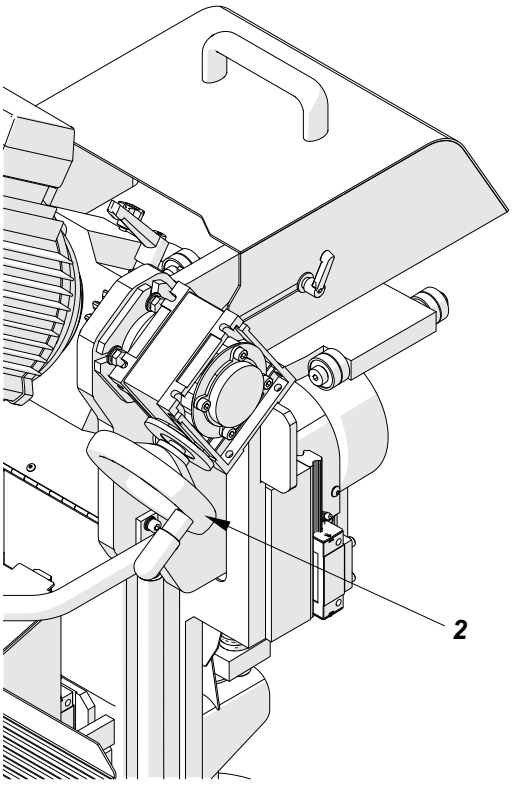
4.2. Adjusting the machine height

The machine automatically maintains the height in the middle of the range thanks to the action of gas springs within 7.87” (200 mm). The carriage's castor springs provide compensation for the lack of parallelism between the plate and the ground when the carriage is in motion.

4.3. Beveling angle adjustment

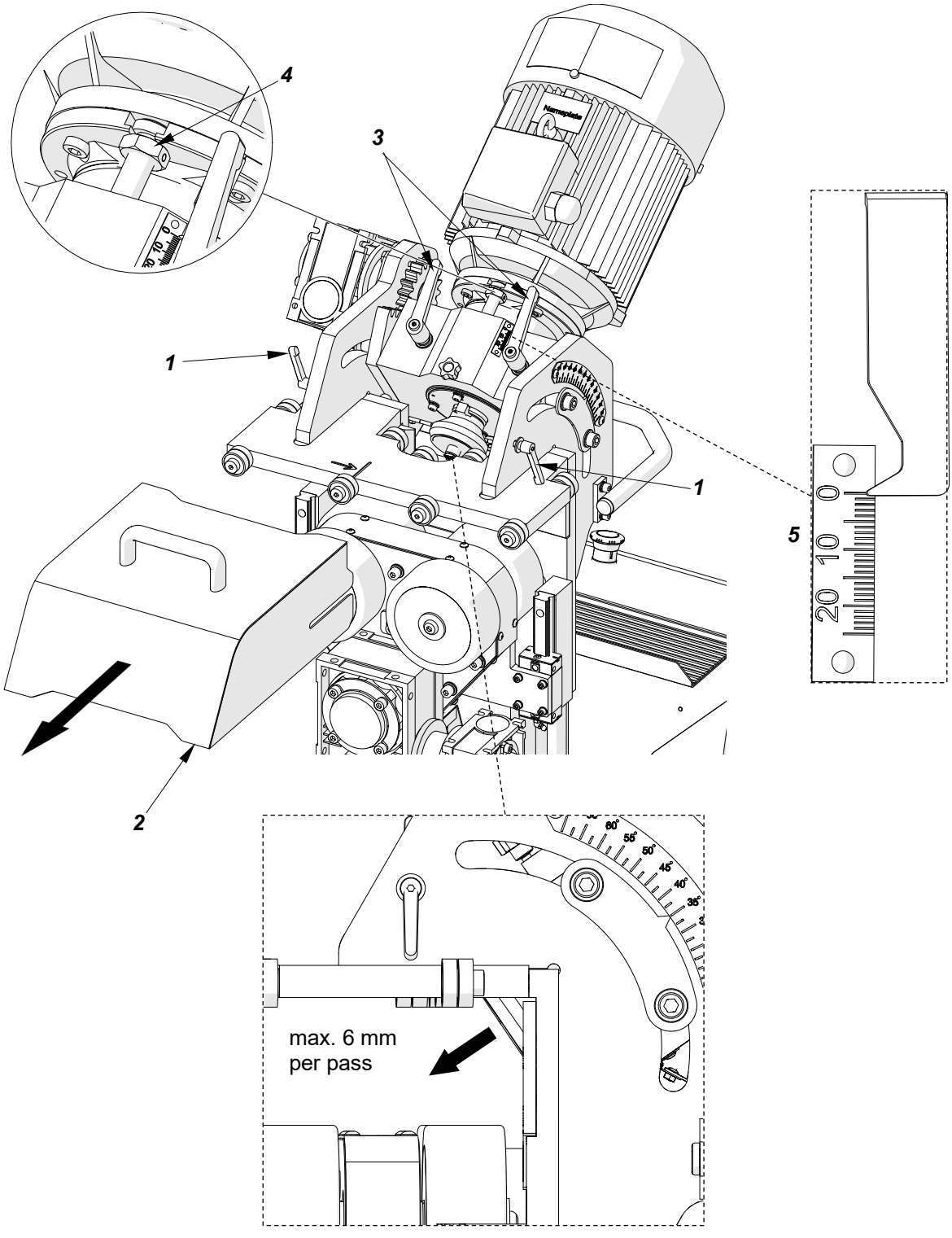
Use 8 mm hex wrench to loosen 4 screws (*1*) on both sides of the machine. Use the knob (*2*) and scale (*3*) to set the required bevel angle. Tighten the screws (*1*) when finished.





4.4. Setting the milling head penetration

Loosen the handles (*1*) on both sides of the machine and remove the chip guard (*2*). Loosen the handles (*3*). Using a 22 mm wrench, turn the nut (*4*) until the desired penetration value is reached on the scale (*5*). When the setting is complete, tighten the handles (*3*), replace the chip guard (*2*) and tighten the handles (*1*).



4.5. Bevel parameters table (mm)

d	β 15° b	15° h	20° b	20° h	25° b	25° h	30° b	30° h	35° b	35° h	40° b	40° h	45° b	45° h	50° b	50° h	55° b	55° h	60° b	60° h	65° b	65° h	70° b	70° h
1											2.4	1.8	2.7	1.9	2.4	1.6	2.4	1.5						
2							2.5	2.2	3.8	3.1	4.4	3.4	4.6	3.3	4.4	2.9	4.4	2.9	2.5	1.3				
3					3	2.7	4.8	4.2	5.9	4.8	6.4	4.9	6.6	4.7	6.5	4.2	6.5	4.2	4.9	2.4	3	1.3		
4			2.9	2.7	5.6	5	7.1	6.2	8	6.6	8.5	6.5	8.6	6.1	8.5	5.5	8.5	5.5	7.2	3.6	5.7	2.4	3	1
5	1.9	1.9	6	5.6	8.2	7.4	9.4	8.2	10.1	8.3	10.5	8	10.6	7.5	10.5	6.8	10.5	6.8	9.5	4.7	8.3	3.5	6.2	2
6	5.8	5.6	9.1	8.5	10.8	9.8	11.7	10.2	12.2	10	12.5	9.6	12.6	8.9	12.5	8.1	12.5	8.1	11.8	5.8	10.9	4.6	9.3	3.1
7	10	9.8	12.2	11.4	13.4	12.2	14	12.2	14.3	11.7	14.5	11.1	14.6	10.3	14.5	9.4	14.5	9.4	14.1	6.9	13.5	5.7	12.5	4.2
8	13.8	13.3	15.3	14.3	16	14.6	16.3	14.2	16.4	13.4	16.6	12.7	16.6	11.7	16.5	10.7	16.5	10.7	16.4	8	16.1	6.8	15.6	5.3
9	17.8	17.2	18.4	17.2	18.6	17	18.6	16.2	18.5	15.1	18.6	14.2	18.6	13.1	18.5	12	18.5	12	18.7	9.1	18.7	7.9	18.7	6.4
10	21.8	21	21.5	20.1	21.2	19.4	20.9	18.2	20.6	16.8	20.6	15.8	20.6	14.5	20.5	13.3	20.5	13.3	21	10.2	21.4	9	21.8	7.5
11	25.8	25	24.6	23	23.8	21.8	23.2	20.2	22.7	18.5	22.6	17.3	22.6	15.9	22.5	14.6	22.5	14.6	23.3	11.4	23.9	10.1	24.9	8.5
12	29.8	28.8	27.7	25.9	26.4	24.2	25.5	22.2	24.8	20.2	24.6	18.9	24.6	17.3	24.5	15.9	24.5	15.9	25.6	12.6	26.5	11.2	27.9	9.6
13	33.8	32.6	30.8	28.8	29	26.6	27.8	24.2	26.9	21.9	26.6	20.4	26.6	18.7	26.5	17.2	26.5	17.2	27.9	13.8	29.1	12.3	31	10.6
14	37.8	36.5	33.9	31.7	31.6	29	30.1	26.2	29	23.6	28.6	22.0	28.6	20.1	28.5	18.5	28.5	18.5	30.2	14.9	31.6	13.4	34	11.6
15	41.8	40.4	37	34.6	34.2	31.4	32.4	28.2	31.1	25.3	30.6	23.5	30.6	21.5	30.5	19.8	30.5	19.8	32.5	16.1	34.2	14.4	37	12.7
16			40.1	37.5	36.8	33.6	34.7	30.2	33.2	27	32.6	25.0	32.6	22.9	32.5	21.1	32.5	21.1	34.8	17.3	36.7	15.5	40	13.7
17			43.2	40.4	39.4	36	37	32.2	35.3	28.7	34.6	26.6	34.6	24.3	34.5	22.4	34.5	22.4	37.1	18.5	39.2	16.6	42.9	14.7
18					42	38.2	39.3	34.2	37.4	30.4	36.6	28.1	36.6	25.7	36.5	23.7	36.5	23.7	39.4	19.7	41.7	17.6		
19					44.6	40.6	41.6	36.2	39.5	32.1	38.6	29.7	38.6	27.1	38.5	25	38.5	25	41.6	20.8	44.2	18.7		
20							43.9	38.2	41.6	33.8	40.6	31.2	40.6	28.5	40.5	26.3	40.5	26.3	43.8	22				
21							46.2	40.2	43.7	35.5	42.6	32.7	52.5	29.9	42.5	27.6	42.5	27.6	46	23.1				
22									45.8	37.2	44.6	34.3	44.5	31.3	44.5	28.9	44.5	28.9						
23									47.9	38.9	46.6	35.8	46.4	32.7	46.5	30.2	46.5	30.2						
24											48.6	37.4	48.3	34.1	48.5	30.4								
25													50.2	35.5										

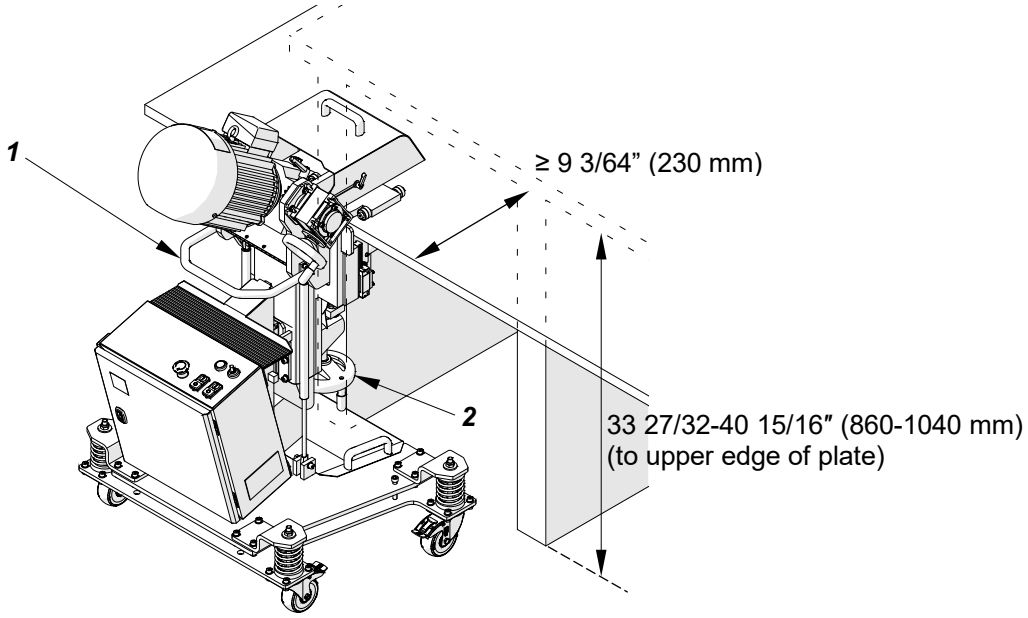
4.6. Bevel parameters table (inch)

d \ β	15°		20°		25°		30°		35°		40°		45°		50°		55°		60°		65°		70°	
	b	h	b	h	b	h	b	h	b	h	b	h	b	h	b	h	b	h	b	h	b	h	b	h
1											3/32"	5/64"	7/64"	5/64"	3/32"	1/16"	3/32"	1/16"						
2							3/32"	3/32"	5/32"	1/8"	11/64"	9/64"	3/16"	1/8"	11/64"	7/64"	11/64"	7/64"	3/32"	3/64"				
3					1/8"	7/64"	3/16"	11/64"	15/64"	3/16"	1/4"	3/16"	17/64"	3/16"	1/4"	11/64"	1/4"	11/64"	3/16"	3/32"	1/8"	3/64"		
4			7/64"	7/64"	7/32"	13/64"	9/32"	1/4"	5/16"	17/64"	21/64"	1/4"	11/32"	15/64"	21/64"	7/32"	21/64"	7/32"	9/32"	9/64"	7/32"	3/32"	1/8"	3/64"
5	5/64"	5/64"	15/64"	7/32"	21/64"	19/64"	3/8"	21/64"	25/64"	21/64"	13/32"	5/16"	27/64"	19/64"	13/32"	17/64"	13/32"	17/64"	3/8"	9/64"	21/64"	9/64"	1/4"	5/64"
6	15/64"	7/32"	23/64"	21/64"	27/64"	25/64"	29/64"	13/32"	31/64"	25/64"	31/64"	3/8"	1/2"	11/32"	31/64"	5/16"	31/64"	5/16"	15/32"	15/64"	27/64"	3/16"	23/64"	1/8"
7	25/64"	25/64"	31/64"	29/64"	17/32"	31/64"	35/64"	31/64"	9/16"	29/64"	37/64"	7/16"	37/64"	13/32"	37/64"	3/8"	37/64"	3/8"	9/16"	17/64"	17/32"	7/32"	31/64"	11/64"
8	35/64"	17/32"	39/64"	9/16"	37/64"	5/8"	41/64"	9/16"	41/64"	17/32"	21/32"	1/2"	21/32"	29/64"	21/32"	27/64"	21/32"	27/64"	41/64"	5/16"	41/64"	17/64"	39/64"	13/64"
9	45/64"	43/64"	23/32"	43/64"	47/64"	43/64"	47/64"	41/64"	47/64"	19/32"	47/64"	9/16"	47/64"	33/64"	47/64"	15/32"	47/64"	15/32"	47/64"	23/64"	47/64"	5/16"	47/64"	1/4"
10	55/64"	53/64"	27/32"	51/64"	53/64"	49/64"	53/64"	23/32"	13/16"	21/32"	13/16"	5/8"	13/16"	37/64"	13/16"	17/32"	13/16"	17/32"	53/64"	13/32"	27/32"	23/64"	55/64"	19/64"
11	1 1/64"	63/64"	31/32"	29/32"	15/16"	55/64"	29/32"	51/64"	57/64"	47/64"	57/64"	11/16"	57/64"	5/8"	57/64"	37/64"	57/64"	37/64"	59/64"	29/64"	15/16"	25/64"	63/64"	21/64"
12	1 11/64"	1 9/64"	1 3/32"	1 1/64"	1 3/64"	61/64"	1"	7/8"	31/32"	51/64"	31/32"	3/4"	31/32"	11/16"	31/32"	5/8"	31/32"	5/8"	1 1/64"	1/2"	1 3/64"	7/16"	1 3/32"	3/8"
13	1 21/64"	1 9/32"	1 7/32"	1 9/64"	1 9/64"	1 3/64"	1 3/32"	61/64"	1 1/16"	55/64"	1 3/64"	51/64"	1 3/64"	47/64"	1 3/64"	43/64"	1 3/64"	43/64"	1 3/32"	35/64"	1 9/64"	31/64"	1 7/32"	27/64"
14	1 31/64"	1 7/16"	1 21/64"	1 1/4"	1 1/4"	1 9/64"	1 3/16"	1 1/32"	1 9/64"	59/64"	1 1/8"	55/64"	1 1/8"	51/64"	1 1/8"	47/64"	1 1/8"	47/64"	1 3/16"	19/32"	1 1/4"	17/32"	1 11/32"	29/64"
15	1 41/64"	1 19/32"	1 29/64"	1 23/64"	1 11/32"	1 15/64"	1 9/32"	1 7/64"	1 7/32"	1"	1 13/64"	59/64"	1 13/64"	27/32"	1 13/64"	25/32"	1 13/64"	25/32"	1 9/32"	41/64"	1 11/32"	9/16"	1 29/64"	1/2"
16			1 37/64"	1 15/32"	1 29/64"	1 21/64"	1 23/64"	1 3/16"	1 5/16"	1 1/16"	1 9/32"	63/64"	1 9/32"	29/32"	1 9/32"	53/64"	1 9/32"	53/64"	1 3/8"	11/16"	1 7/16"	39/64"	1 37/64"	35/64"
17			1 45/64"	1 19/32"	1 35/64"	1 27/64"	1 29/64"	1 17/64"	1 25/64"	1 1/8"	1 23/64"	1 3/64"	1 23/64"	61/64"	1 23/64"	7/8"	1 23/64"	7/8"	1 29/64"	47/64"	1 35/64"	21/32"	1 11/16"	37/64"
18					1 21/32"	1 1/2"	1 35/64"	1 11/32"	1 15/32"	1 13/64"	1 7/16"	1 7/64"	1 7/16"	1 1/64"	1 7/16"	15/16"	1 7/16"	15/16"	1 35/64"	25/32"	1 41/64"	11/16"		
19					1 3"	1 19/32"	1 41/64"	1 27/64"	1 9/16"	1 17/64"	1 33/64"	1 11/64"	1 33/64"	1 1/16"	1 33/64"	63/64"	1 33/64"	63/64"	1 41/64"	13/16"	1 47/64"	47/64"		
20							1 47/64"	1 1/2"	1 41/64"	1 21/64"	1 19/32"	1 15/64"	1 19/32"	1 1/8"	1 19/32"	1 1/32"	1 19/32"	1 1/32"	1 23/32"	55/64"				
21							1 13/16"	1 37/64"	1 23/32"	1 25/64"	1 43/64"	1 9/32"	2 1/16"	1 11/64"	1 43/64"	1 3/32"	1 43/64"	1 3/32"	1 13/16"	29/32"				
22									1 51/64"	1 15/32"	1 3/4"	1 11/32"	1 3/4"	1 15/64"	1 3/4"	1 9/64"	1 3/4"	1 9/64"						
23									1 57/64"	1 17/32"	1 53/64"	1 13/32"	1 53/64"	1 9/32"	1 53/64"	1 3/16"	1 53/64"	1 3/16"						
24											1 29/32"	1 15/32"	1 29/32"	1 11/32"	1 29/32"	1 13/64"								
25													1 31/32"	1 25/64"										

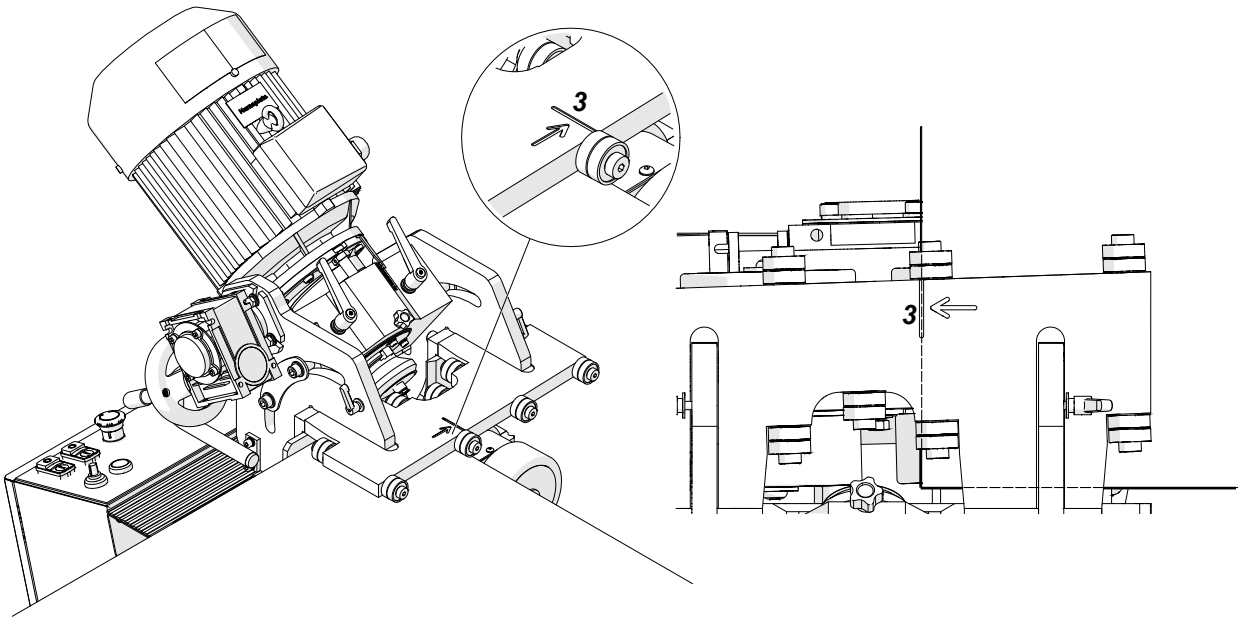
4.7. Putting the machine on the plate

Attach the plate to a work table or supports at height of 33 27/32-40 15/16″ (860-1040 mm) (to upper edge of plate). Using the handle (*1*), raise the top of the machine above the level of the sheet, and then rest the top rollers on the top surface of the plate. Using the crank of the feed assembly (*2*), lift the assembly so that the lower rollers make contact with the lower surface of the plate, then make one more turn of the crank.

Do not press the feed assembly too hard against the plate. This can overload the motor of the feed unit.



Before starting work, the edge of the plate must be aligned with the arrow (*3*).



4.8. Operation

4.8.1. Operation procedure for control cabinet ABM-50 DD

1. Turn on the power to the machine with the power switch.
2. The power light comes on.
3. If the phase sequence light comes on, it means that the power phases are incorrectly connected. In this case, the machine will not work. Before starting work, change the order of phases in the machine's power cord.
4. Press the spindle rotation switch.
5. Press the feed switch. Set the proper feed speed.
6. If the machine is overloaded during operation, it will stop and the overload light with the button will come on. To resume operation, remove the cause of the overload and press this button to reset the overload condition. Before resuming work, definitely reduce the feed speed to start the machine more smoothly. Make sure the spindle is not mechanically locked, then turn the spindle rotation back on.
7. The machine can be stopped at any time using the emergency switch. Do not use it for normal machine shutdown.

4.8.2. Operation procedure for control cabinet ABM-50 DD Vario

1. Turn on the power to the machine with the power switch.
2. Press the control system switch.
3. Press the spindle rotation switch. Set the proper rotation speed.
4. Press the feed switch. Set the proper feed speed.
5. The lighting of lights 1 and 2 (green and orange) of the load level during operation is normal. When the load continues to increase, the overload light with the button will start flashing. If the machine is overloaded during operation, it will stop and the overload light with the button will come on. To resume operation, remove the cause of the overload and press this button to reset the overload condition. Before resuming work, definitely reduce the feed speed to start the machine more smoothly. Make sure the spindle is not mechanically locked, then turn the spindle rotation back on.

6. The machine can be stopped at any time using the emergency switch. Do not use it for normal machine shutdown.

Do not let chips get inside the control cabinet. Chips in the cabinet can cause damage to the machine.

The correct speeds of the spindle and feed depend on hardness, condition and quantity of material, bevel angle, milling head depth, and condition of the cutting inserts.
Carbon steel (Rm < 600 MPa) should be machined with speed set at 1100-1450 rpm.
Hard steel (Rm ≥ 600 MPa) should be machined with speed set at 600-900 rpm.
If the speeds are too high or too low for the hardness of material, the inserts will wear faster or will be unable to cut the material.
If the operation of the machine is optimal, the load light will be green or orange. If the machine operates at the overload limit, the red overload indicator will flash. It is then required to decrease the feed speed.
When inserting, control the machine at low speed so that it is guided parallel to the edge to be machined. When the second pair of wheels enters the plate, the feed can be increased.
Constantly monitor the movement of the machine and make sure it is pressed against the face of the plate. At the end of the plate, set the feed rate below 20 cm/min (8 in./min). Hold the machine until it comes off the plate, then turn off the spindle and feed.

Constantly clean the wheels and plate from chips. This will extend the life of the wheels.

To make another pass, increase the head penetration by no more than 6 mm and set the machine on the sheet again. Before starting the spindle and feed, make sure the head does not touch the plate.

Make successive passes to obtain the required bevel parameters. The minimum number of passes is given in the table.
Use decreasing penetration values for successive passes (e.g. 6 mm for the first pass, 5 mm for the second, 4 mm for the third, etc.).

Bevel angle	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°
Maximum bevel width [mm]	66	59	55	52	51	50	50	50	51	51	51	51
Maximum bevel width [in]	2 19/32″	2 21/64″	2 11/64″	2 3/64″	2 1/64″	1 31/32″	1 31/32″	1 31/32″	2 1/64″	2 1/64″	2 1/64″	2 1/64″
Minimum number of passes	**2**	**3**	**4**	**4**	**5**	**6**	**7**	**6**	**5**	**4**	**4**	**3**

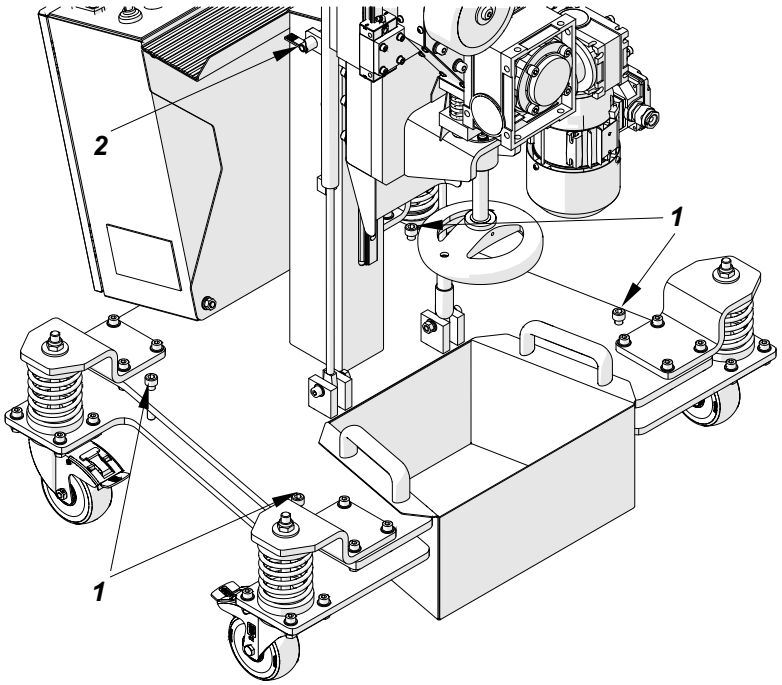
In an emergency, press the emergency switch to stop the rotation. To restart the machine, remove the cause of the emergency. Then wait 60 seconds and unlock the switch.

After the power is off, wait 60 seconds before you turn the power on again.

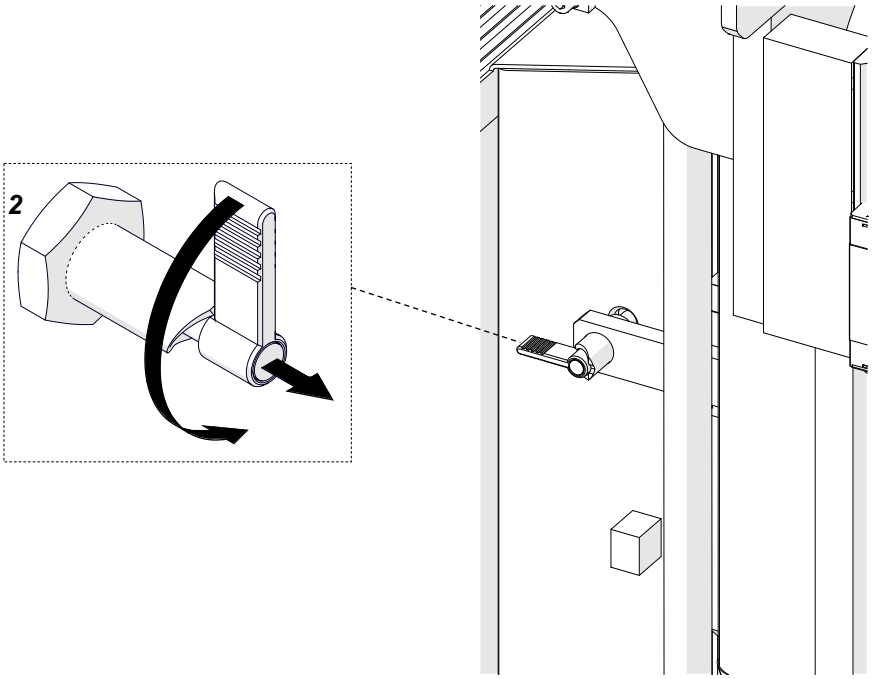
Clean the machine with a dry cotton cloth and no chemical agents. Remove chips with a soft brush.

4.9. Stationary operation

The machine allows for beveling the workpieces fed manually. To do this, screw in the 4 screws of the carriage (*1*) and lock the height change.



To lock the height change, pull and rotate the lever (*2*) to release it. The lever pin should be in the hole of the main carriage support.

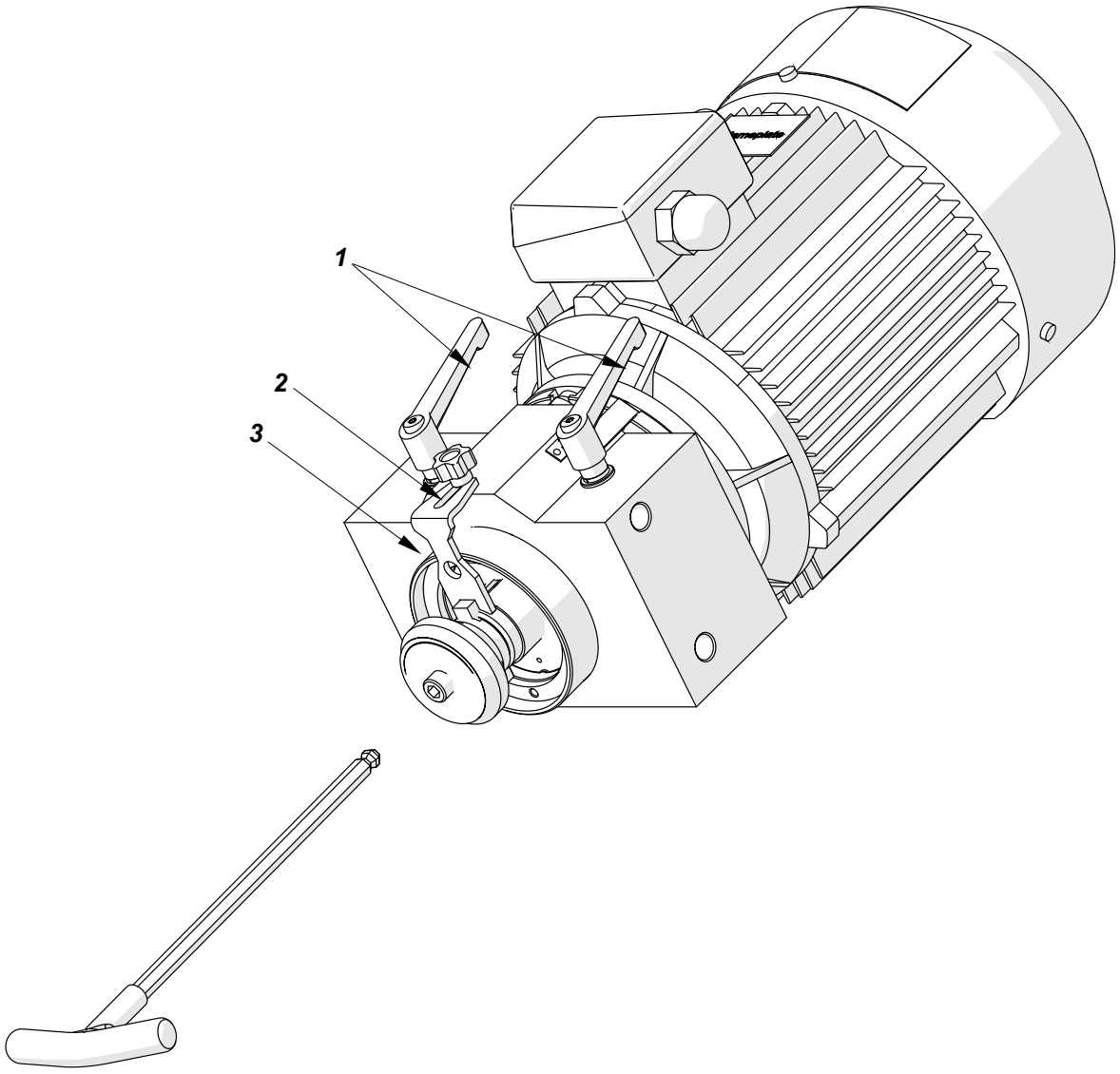


4.10. Removing and installing the milling head

Disconnect the machine from the power and lower the feed unit. Set the bevel angle at about 35°. Remove the chip guard. Loosen the handles (*1*) and adjust the maximum recess value for better access to the head.

Loosen the knob (*2*). Use the special wrench (*3*) to lock the spindle rotation. Tighten the knob (*2*). Using the 10 mm hex wrench, unscrew the head.

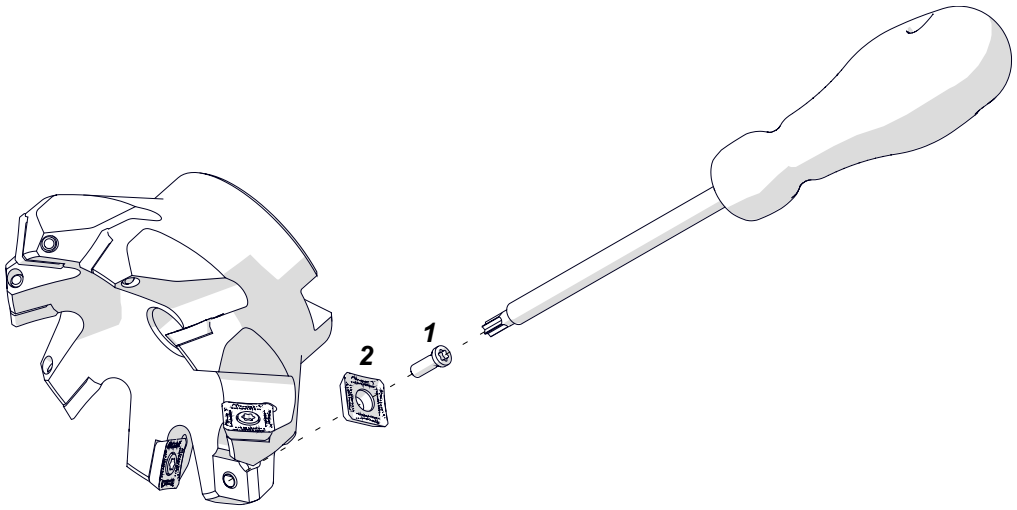
To install, put the head on the spindle. Lock the rotation of the spindle, then use the screw with the washer and tighten the head with the 10 mm hex wrench. Remove the special wrench.



Before starting the machine remove the special wrench! Otherwise, the machine will be damaged.

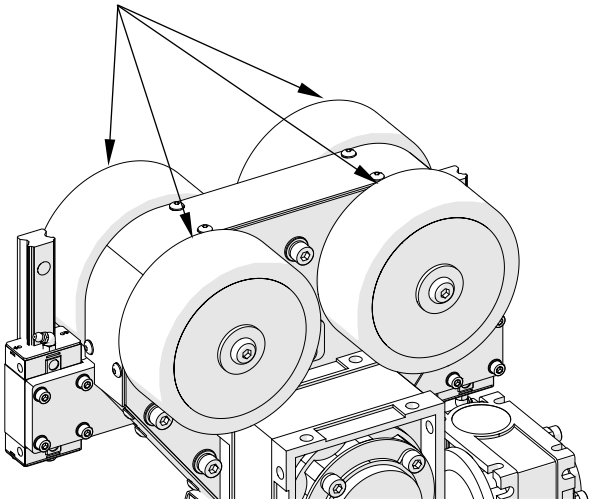
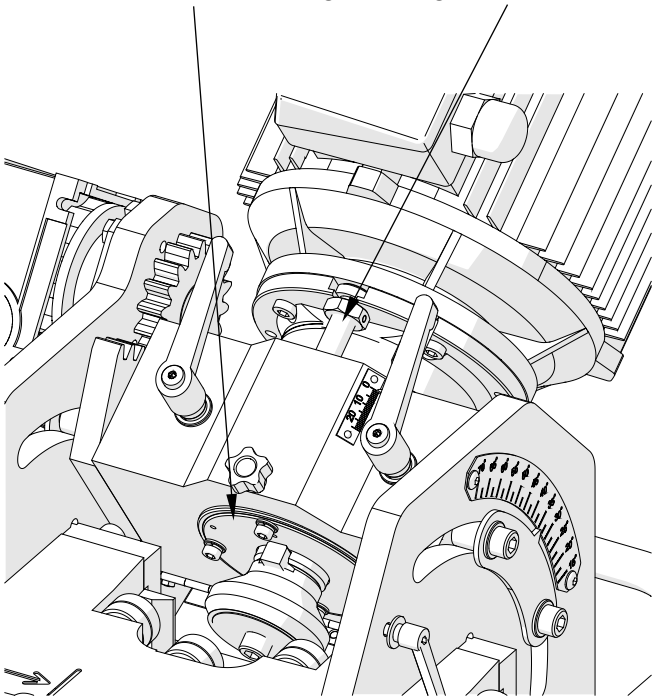
4.11. Replacing the cutting inserts

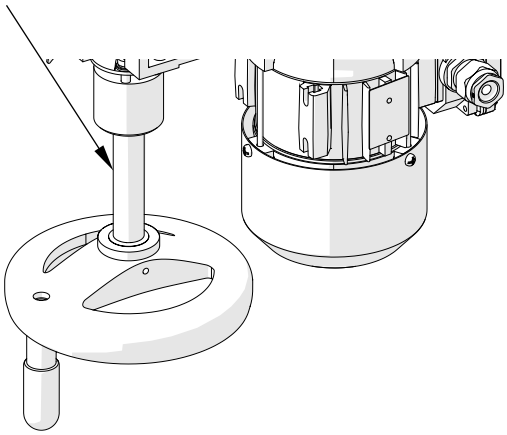
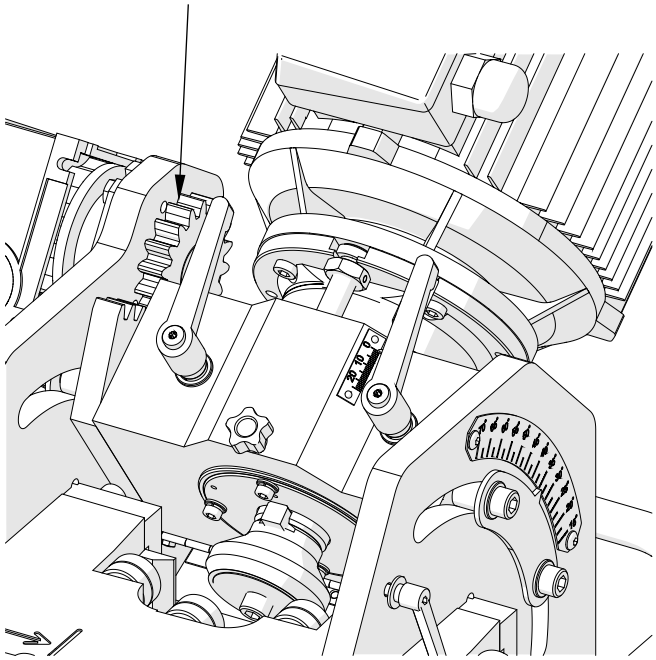
Remove the head as described before. Use the screwdriver to unscrew the retaining screw (*1*), remove the cutting insert (*2*) and clean the socket with compressed air. Check for material residues in the socket or on the insert. Turn the cutting insert by 90° and reinstall it. If edges are worn, replace the insert with the new one. Press the cutting insert so that its bottom is in full contact with the socket, and then tighten with the fixing screw.

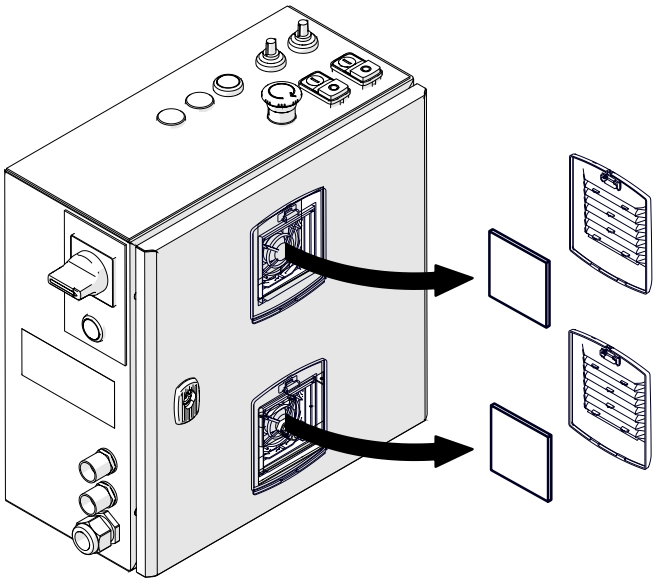
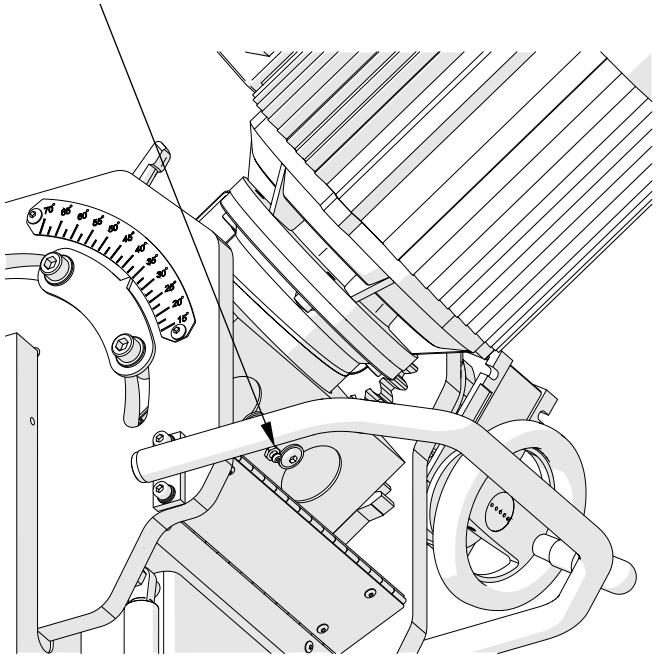


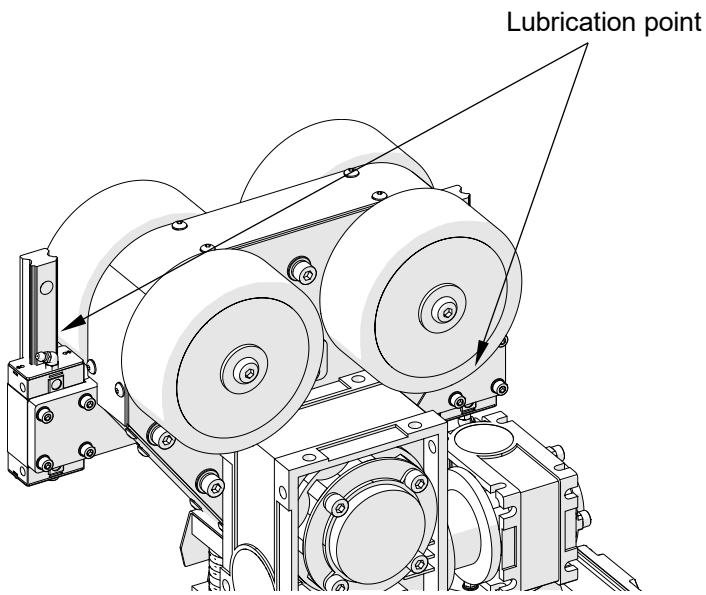
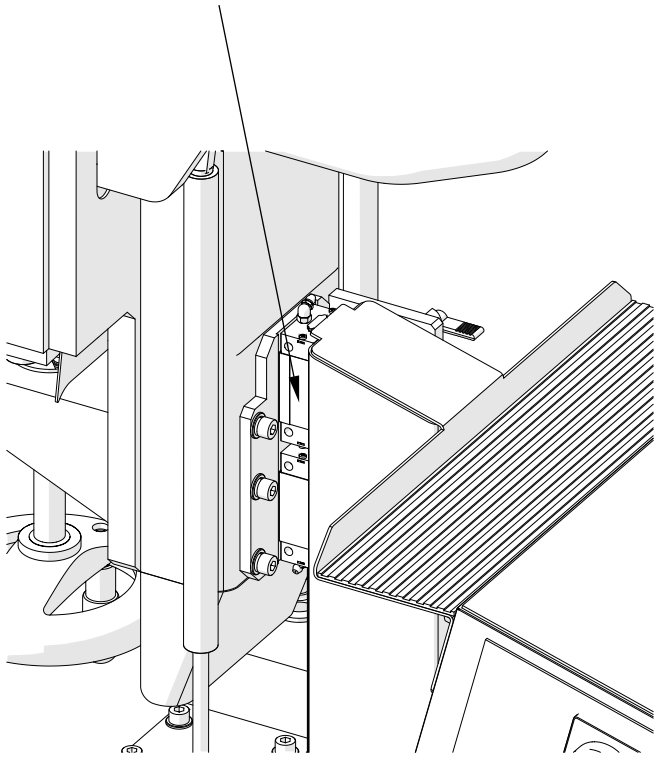
If the sockets and insert support surfaces are damaged, the head is not suitable for further use.

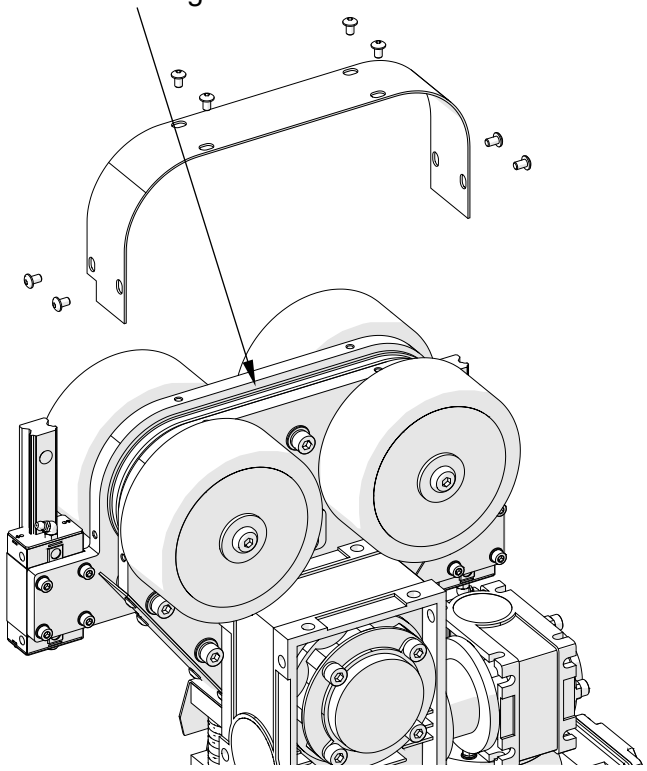
5. MAINTENANCE

Interval	Activity
After each pass	Clean the feed wheels from chips. 
Before each penetration change	Clean the spindle bearing housing and penetration screw. 

Interval	Activity
After each work shift	Clean the feed unit screw. 
After each work shift	Clean the bevel angle adjustment gears from chips. 
Every week	Clean threads of the mounting screws for milling inserts and apply Molykote 1000 grease on the threads.
Every week	Check if all screws in the feed unit are tightened. Apply Loctite 243 on the screw threads and tighten the screws if they are loose.

Interval	Activity
Every month (only ABM-50 DD Vario)	Make sure that the air filters in the control cabinet are clean. Replace them if contaminated. 
Every month	Set the penetration to 22 mm and lubricate the spindle unit using a grease nipple. 
Every 3 months	Use lubricator to pump KP2K-30 grease into each carriage.

Interval	Activity
	
Every 3 months	Lubricate the up-down movement carriages. 

Interval	Activity
Every 3 months	Use the 4 mm hex wrench to remove the cover. Apply NLGI 3 grease onto the chain using brush. 

Check regularly that the feed wheel assembly is parallel to the top rollers. If not, the machine may move away from the edge.

6. WEARING PARTS

Part number	Part name
GLW-0773-28-00-00-0	Milling head (with fixing screws, 5 inserts required)
PLY-000282	Cutting insert (sold 10 per set)
PLY-000591	Heavy duty cutting insert (sold 10 per set)
PLY-000781	Cermet cutting insert for steel (sold 10 per set)
PLY-000835	Cutting insert for stainless steel (sold 10 per set)
SRB-000485	Mounting screw for cutting insert
SMR-000005	Grease for screws Molykote 1000 (5 g/0.17 oz)
FLT-000026	Control cabinet filter 92x92 mm (sold 5 per set)

7. DECLARATION OF CONFORMITY

Declaration of Conformity EC

PROMOTECH sp. z o.o.
ul. Elewatorska 23/1
15-620 Białystok, Poland

We declare with full responsibility that:

ABM-50 DD and ABM-50 DD VARIO beveling machine

is manufactured in accordance with the following standards:

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

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

Person authorized to compile the technical file:
Artur Zawadzki, ul. Elewatorska 23/1, 15-620 Białystok, Poland

Białystok, 2024-11-19

Artur Zawadzki
CEO

8. WARRANTY CARD

WARRANTY CARD No.....

..... in the name of Manufacturer warrants the machine to be free of defects in material and workmanship under normal use for a period of 2 years (24 months) from the date of sale, except batteries (if applicable) which are covered with 2 years (24 months) warranty from their manufacturing date.

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

Serial number .....

Date of sale .....

Signature and stamp of the seller .....

0.04 / 19 May 2025

WE RESERVE THE RIGHT TO MAKE CHANGES IN THIS MANUAL WITHOUT NOTICE