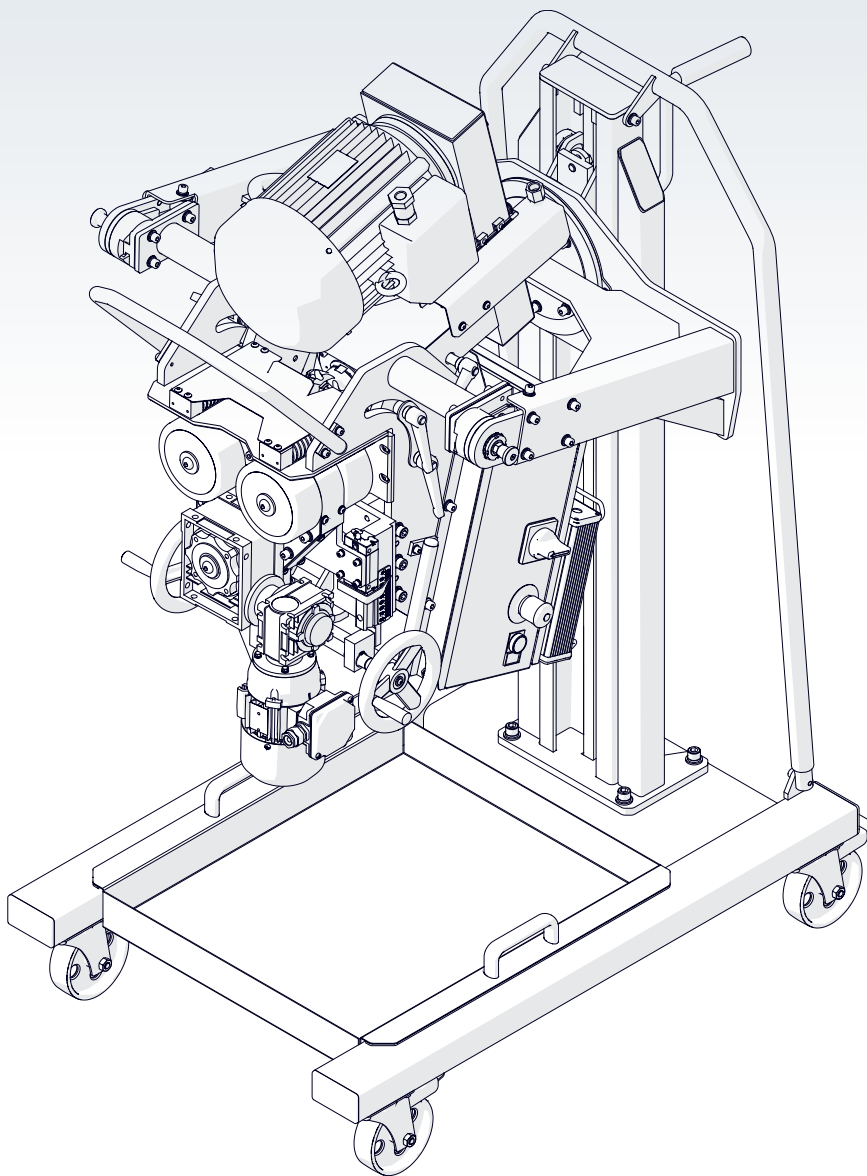




AUTO-FEED BEVELLING MACHINE

OPERATOR'S MANUAL



ABM-50

Ver: 1.0

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LIMITED WARRANTY

Industrial Tool & Machinery Sales (hereinafter referred to as ITMS) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship.

This warranty is void if the item has been damaged by accident, neglect, improper service or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to overloading or use beyond recommended capacities and specifications. Worn componentry due to normal wear and tear is not a warranty claim. Goods returned defective shall be returned prepaid freight to ITMS or agreed repair agent, which shall be the buyer's sole and exclusive remedy for defective goods. ITMS accepts no additional liability pursuant to this guarantee for the costs of travelling or transportation of the product or parts to and from ITMS or the service agent or dealer, such costs are not included in this warranty.

Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

THE MANUFACTURER RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

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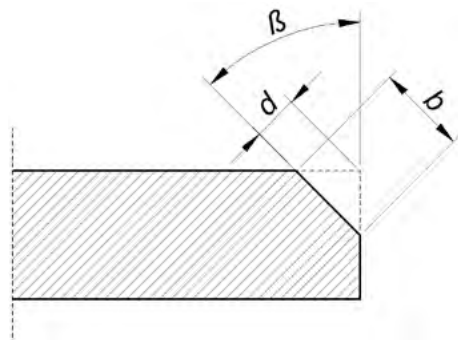
1. GENERAL INFORMATION

1.1. Application

The ABM-50 is an auto feed machine designed to bevel plates made of carbon steel. The machine can bevel plates at an angle of 15–60° and to the bevel width of up to 50 mm (2"). The travel along the plate is automatic.

1.2. Technical data

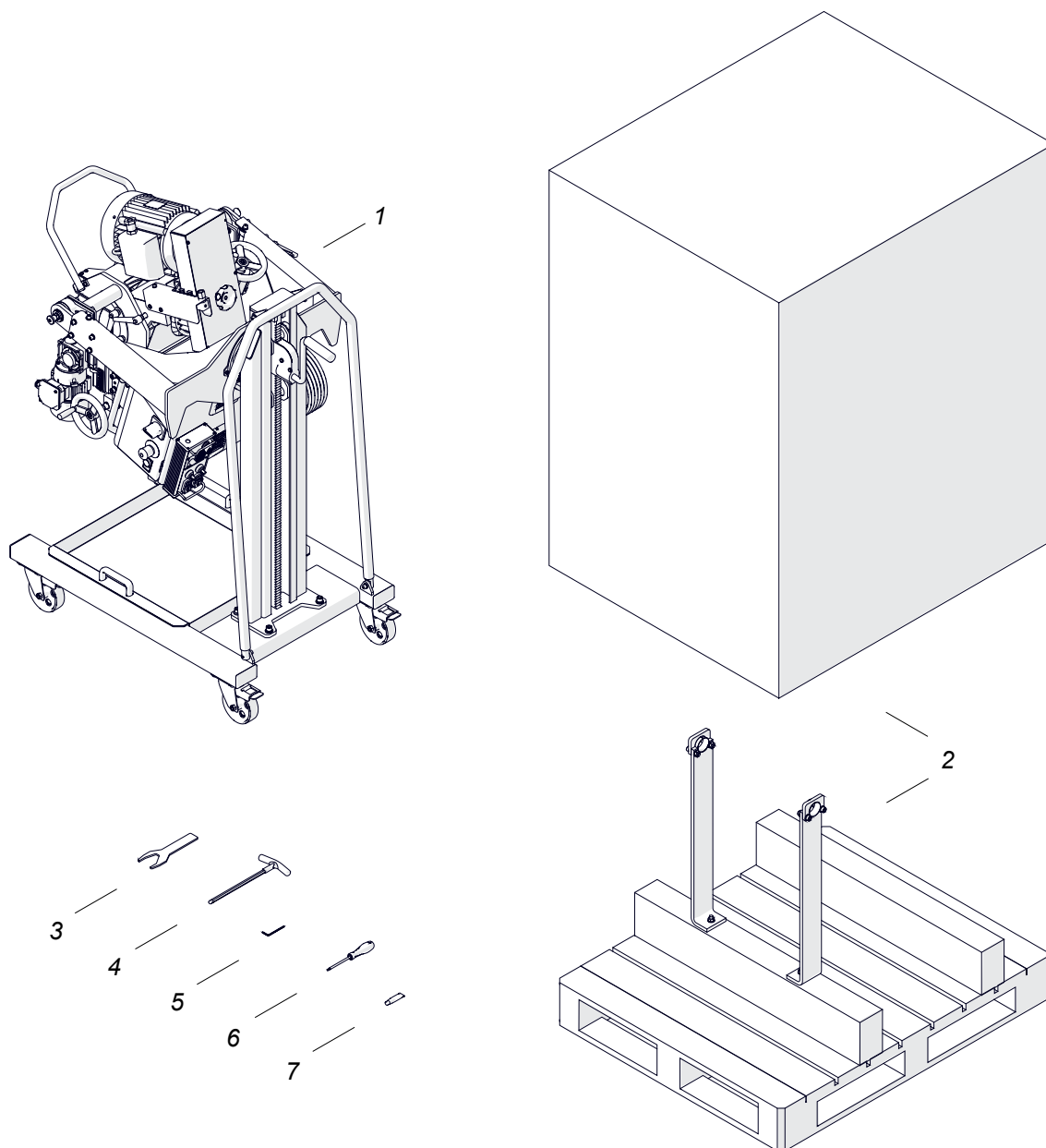
Voltage	3~ 400 V + PE, 50/60 Hz 3~ 480 V + PE, 50/60 Hz
Power	6.5 kW
Spindle rotational speed (without load)	300–800 rpm
Feed speed	0–1.2 m/min (0–4 ft/min)
Bevel angle (β , Fig. 1)	15–60°
Maximum bevel width (b , Fig. 1)	50 mm (2")
Maximum milling head depth (d , Fig. 1) allowed per one pass	6 mm (1/4")
Plate thickness	8–80 mm (5/16–3-1/8")
Protection level	IP 20
Protection class	I
Required ambient temperature	0–40 °C (34–104°F)
Weight	320 kg (700 lbs)



β	15°	30°	45°	60°
b	66 mm	52 mm	50 mm	51 mm

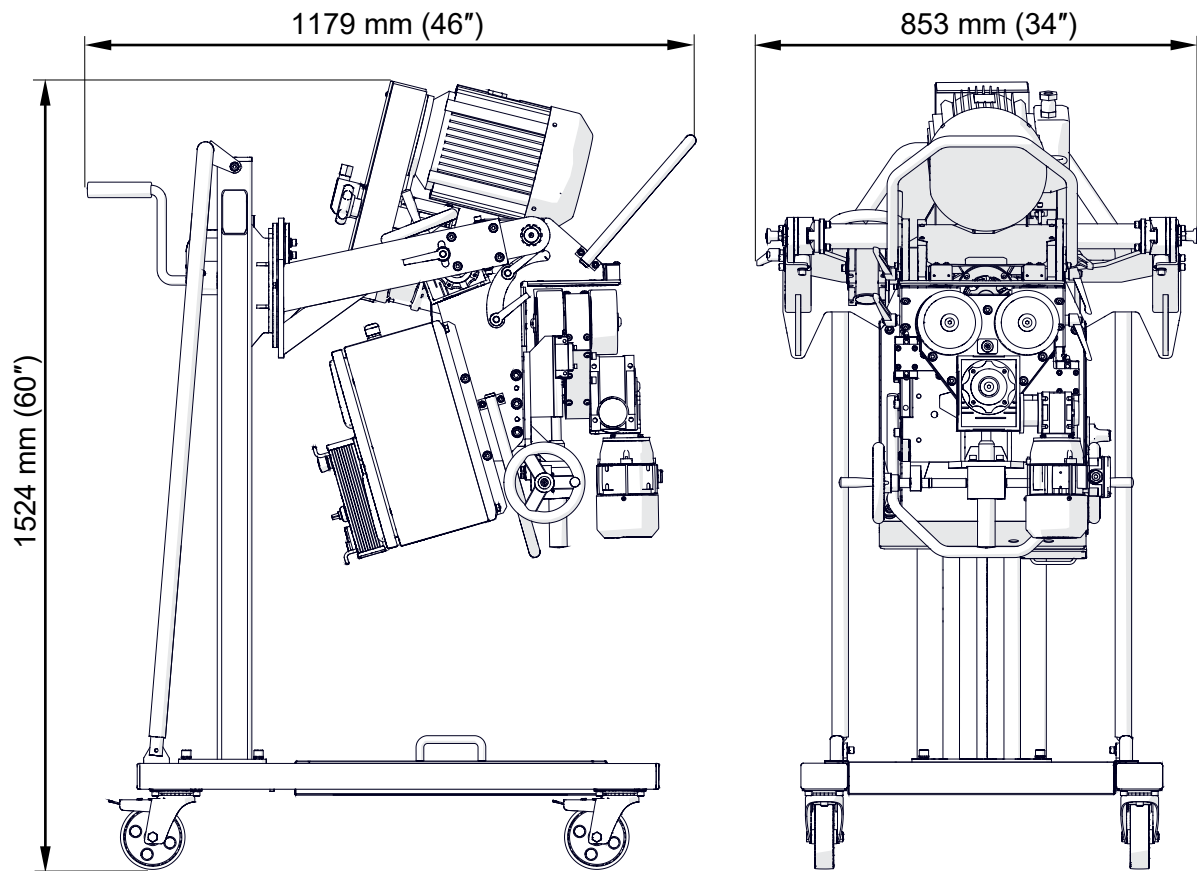
Rys. 1. Bevel dimensions; maximum bevel width depending on the angle

1.3. Equipment included

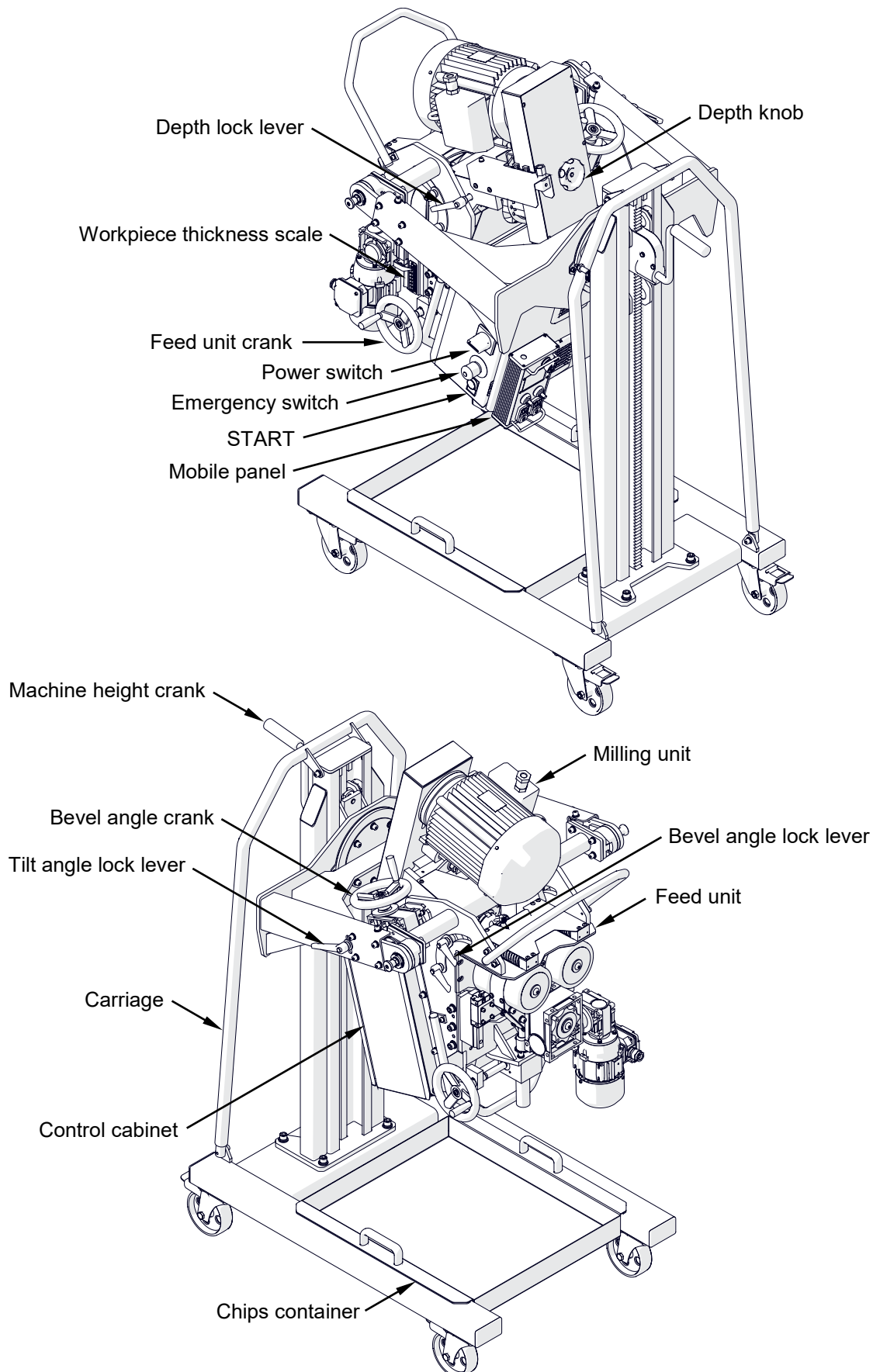


1	Beveling machine (with a milling head and 8 cutting inserts)	1 unit
2	Wooden box with a base and mounting brackets	1 unit
3	Special wrench	1 unit
4	10 mm T-handle hex wrench with a ball	1 unit
5	3.5 mm hex wrench	1 unit
6	T15 torx screwdriver	1 unit
7	Grease for screws	1 unit
–	Operator's manual	1 unit

1.4. Dimensions



1.5. Design



2. SAFETY PRECAUTIONS

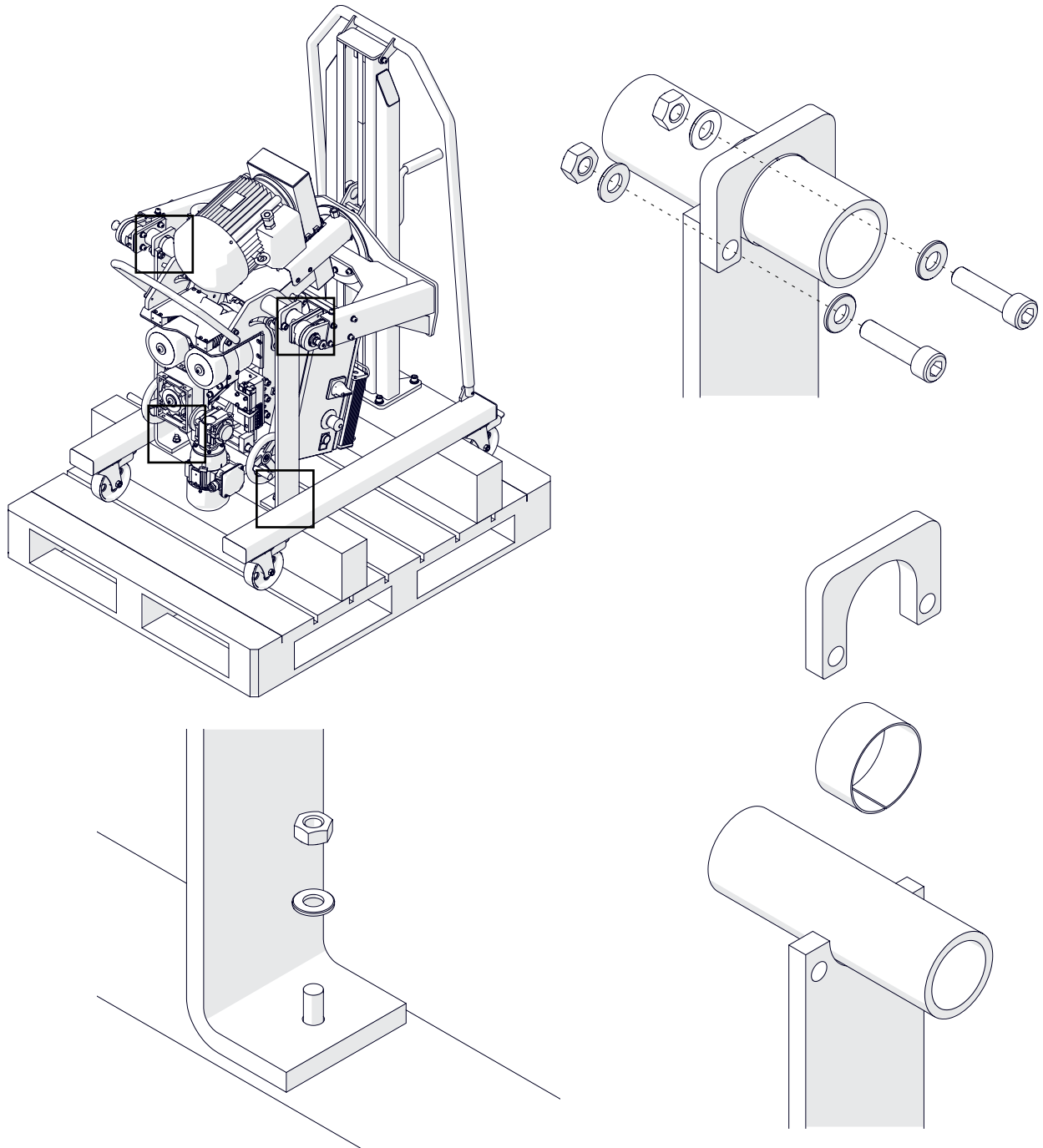
1. Before you start, read this Operator's Manual and complete a training in occupational safety and health.
2. Use only in applications specified in this Operator's Manual.
3. Make sure that the machine has all parts and they are genuine and not damaged.
4. Make sure that the specifications of the power 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.
6. Do not pull the cord. This can cause damage and electric shock.
7. Keep the machine in vertical position.
8. Keep untrained bystanders away from the machine.
9. Before you start, ensure the correct condition of the machine, power source, power cord, plug, control cabinet, mobile panel, and tools.
10. Wait at least 3 minutes before you do work near inverters in the control cabinet.
Make sure that there is no voltage on the connections of the inverters.
11. After the power is off, always wait 60 seconds before you turn the power on.
12. Keep the machine dry. Do not expose it to rain, snow, or frost.
13. Keep the work area well-lit, clean, and free of obstacles.
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 power source.
15. Do not use tools that are dull or damaged.
16. If the cutting edge of an insert is worn, rotate all inserts by 90°. If all edges are worn, install new inserts specified in this Operator's Manual.
17. Do not make bevels or machine plates whose parameters differ from those specified in the technical data.
18. Do not use near flammable materials or in explosive environments.
19. Before each use, make sure that the machine is not damaged and no part is cracked or loose. Make sure to maintain correct conditions that can have an effect on the operation of the machine.
20. Use eye and hearing protection, gloves, and protective clothing during work.
Do not use loose clothing.

21. Do not touch chips or moving parts. Do not let anything get caught in moving parts. Do not put hands near the wheels.
22. After each use, clean the machine and the milling head with a cotton cloth and no chemical agents. Do not remove chips with bare hands.
23. Maintain the machine and install/remove parts and tools only after you unplug the machine from the power source.
24. Repair only in a service center appointed by the seller.
25. If the machine falls from any height, is wet, or has any damage, stop the work and promptly send the machine to the service center for check and repair.
26. Do not leave the machine when it operates.
27. If you are not going to use the machine for an extended period, put anti-corrosion layer on the steel parts.

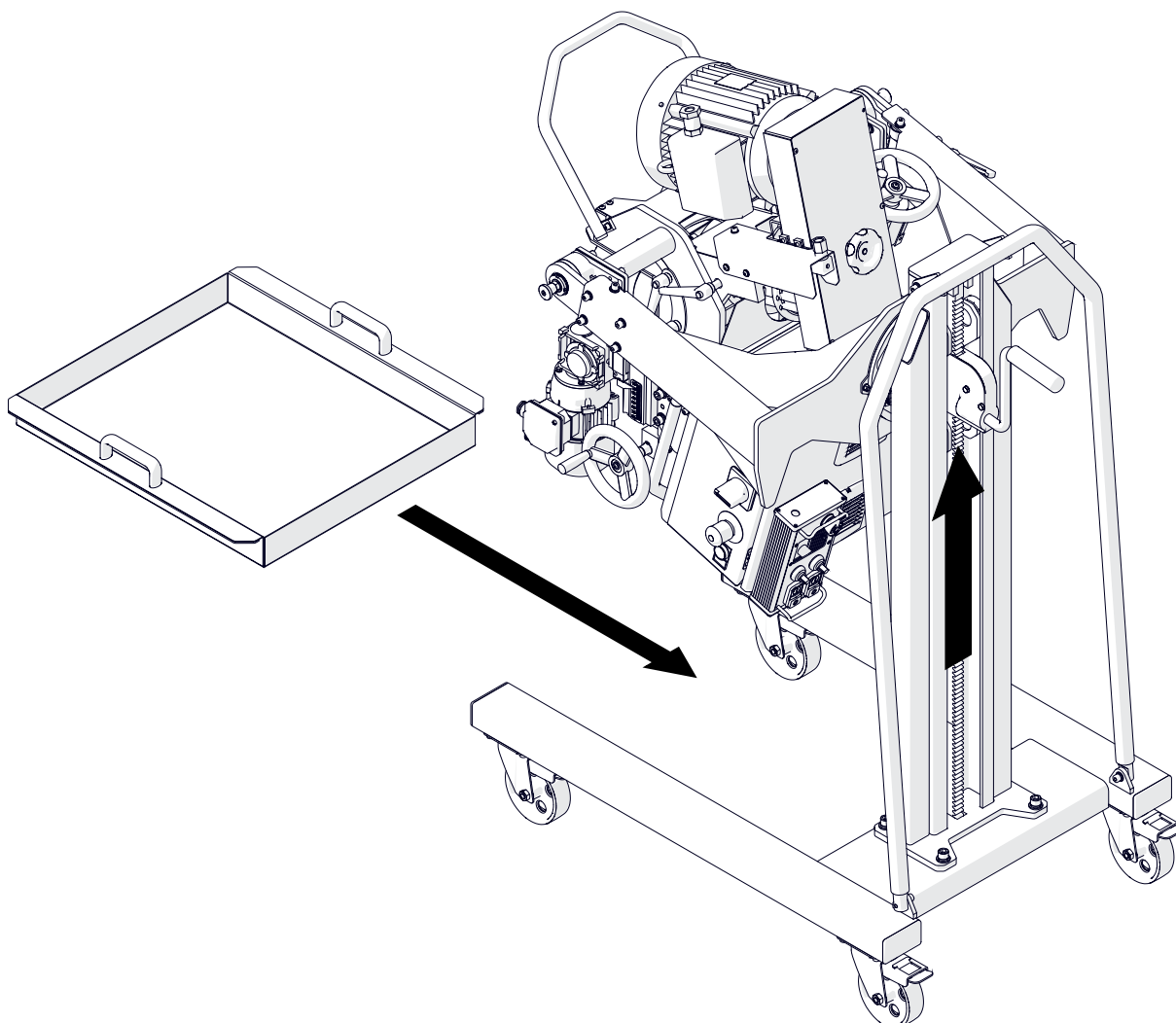
3. STARTUP AND OPERATION

3.1. Unpacking

Use the 17 mm flat wrench and the 8 mm hex wrench (not included) to remove the mounting brackets.



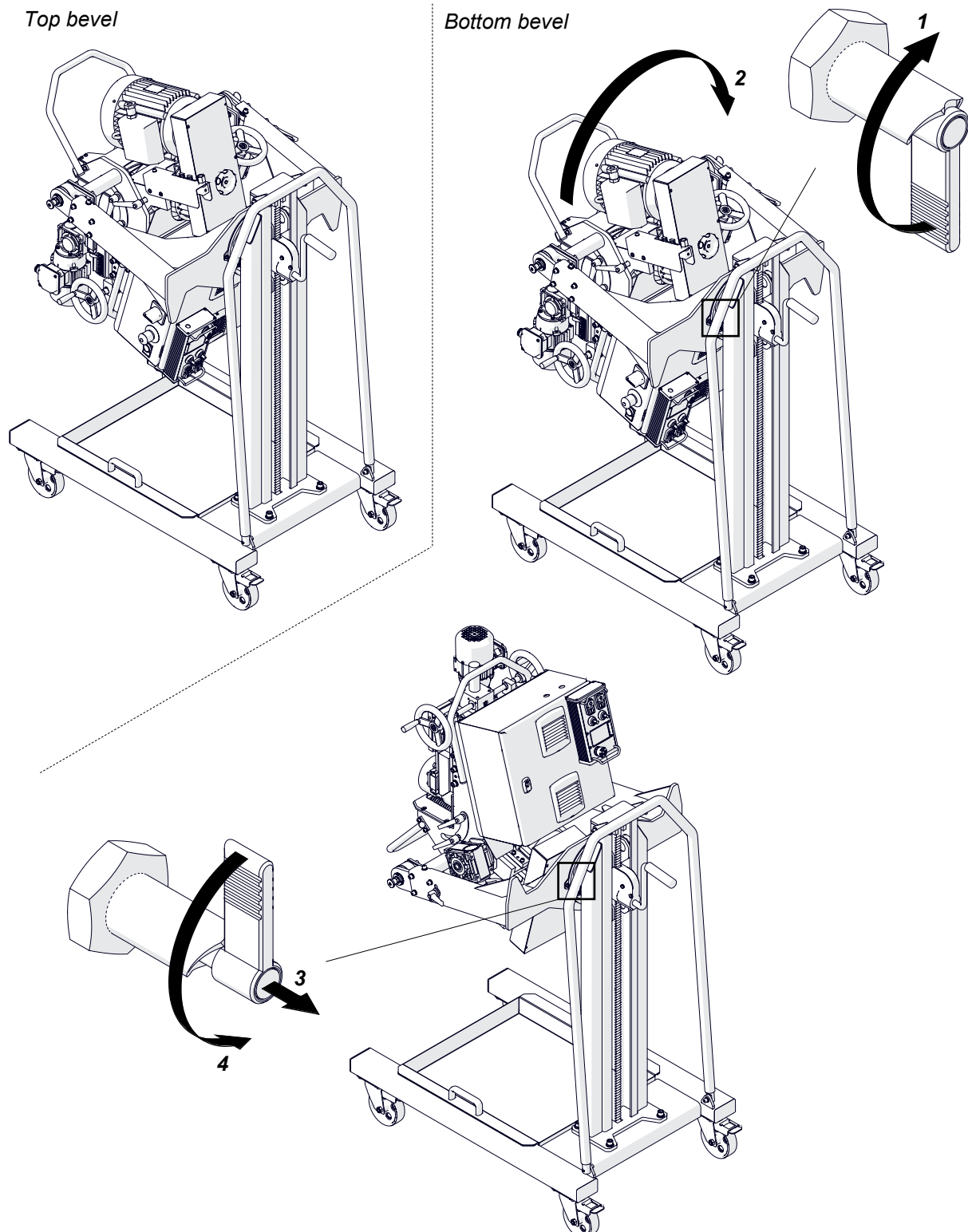
Use the height crank to lift the machine. Put the chips container onto the carriage below the machine.



3.2. Setting the machine for top or bottom bevel

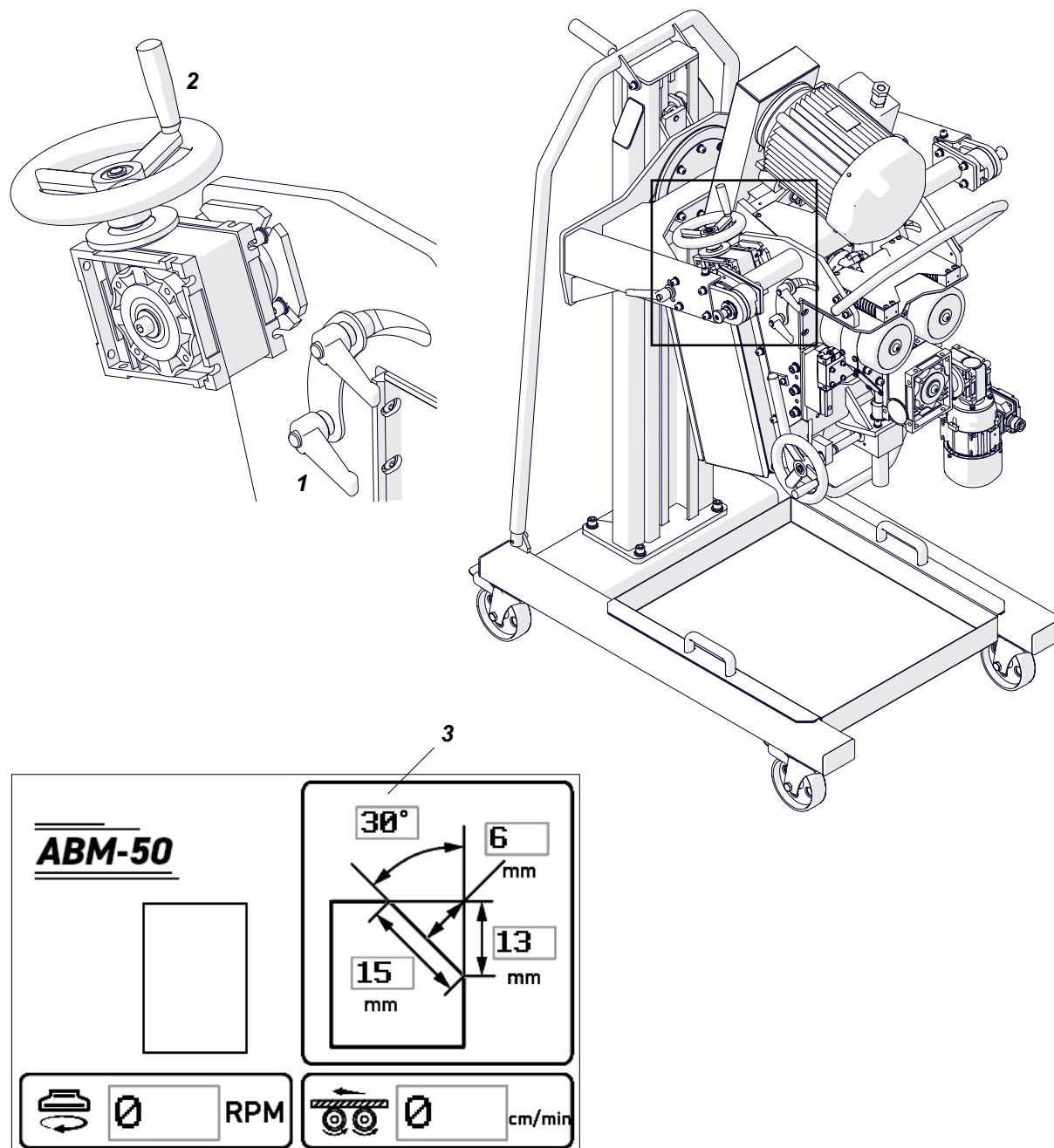
To bevel from the top, set the machine as shown in the left figure.

To bevel from the bottom, loosen the lever (1). Next, rotate the machine by 180° (2) and lock the lever (3, 4).

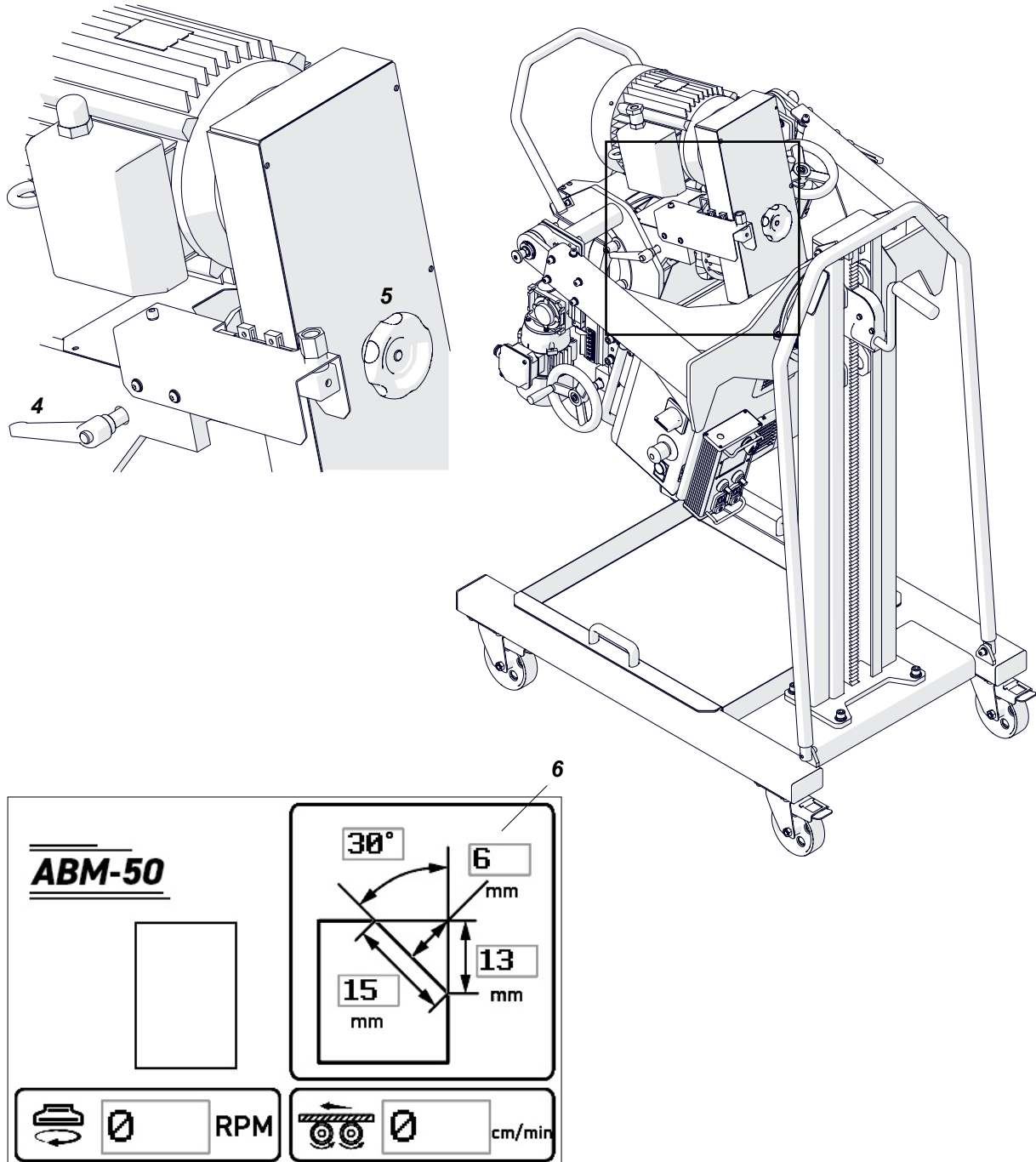


3.3. Setting the bevel angle and head depth

On the two sides, loosen four levers (1). Use crank (2) to set the required angle on the screen (3) and lock the levers (1).

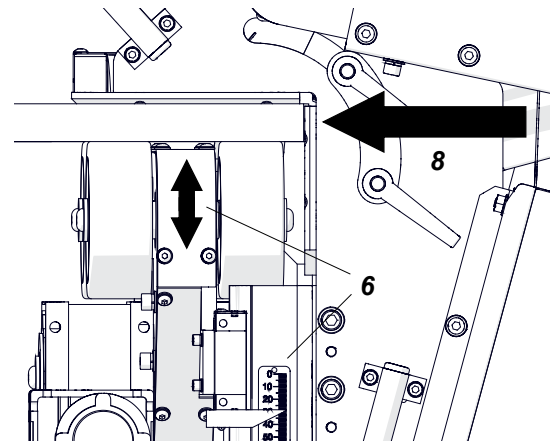
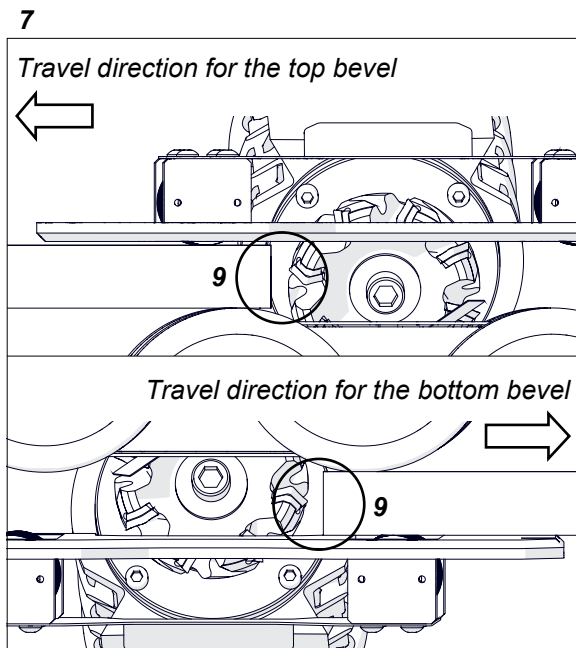
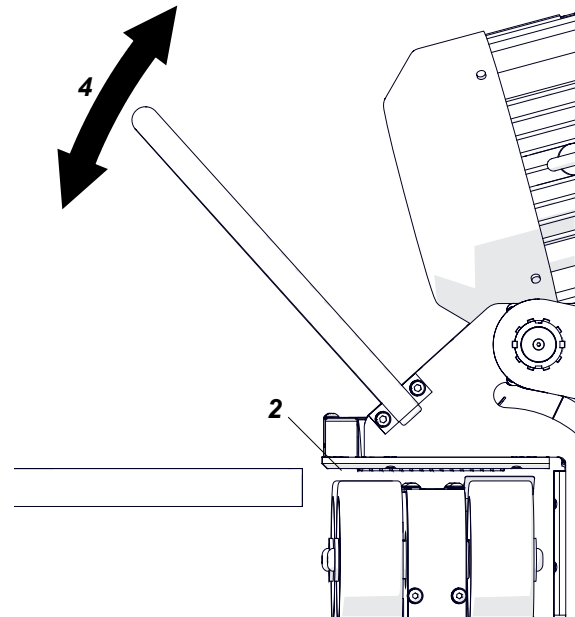
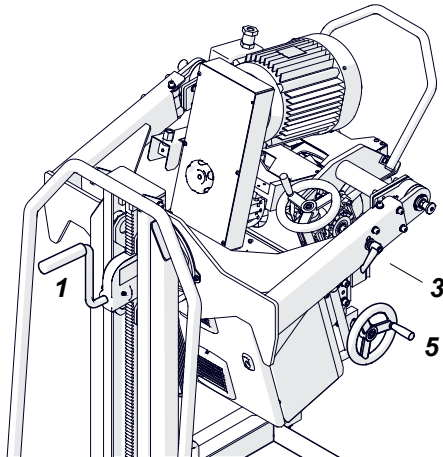


Loosen the lever (4) and use the knob (5) to set the required depth on the screen (6). Make sure that the depth is not more than 6 mm per one pass. Then, lock the lever (4).



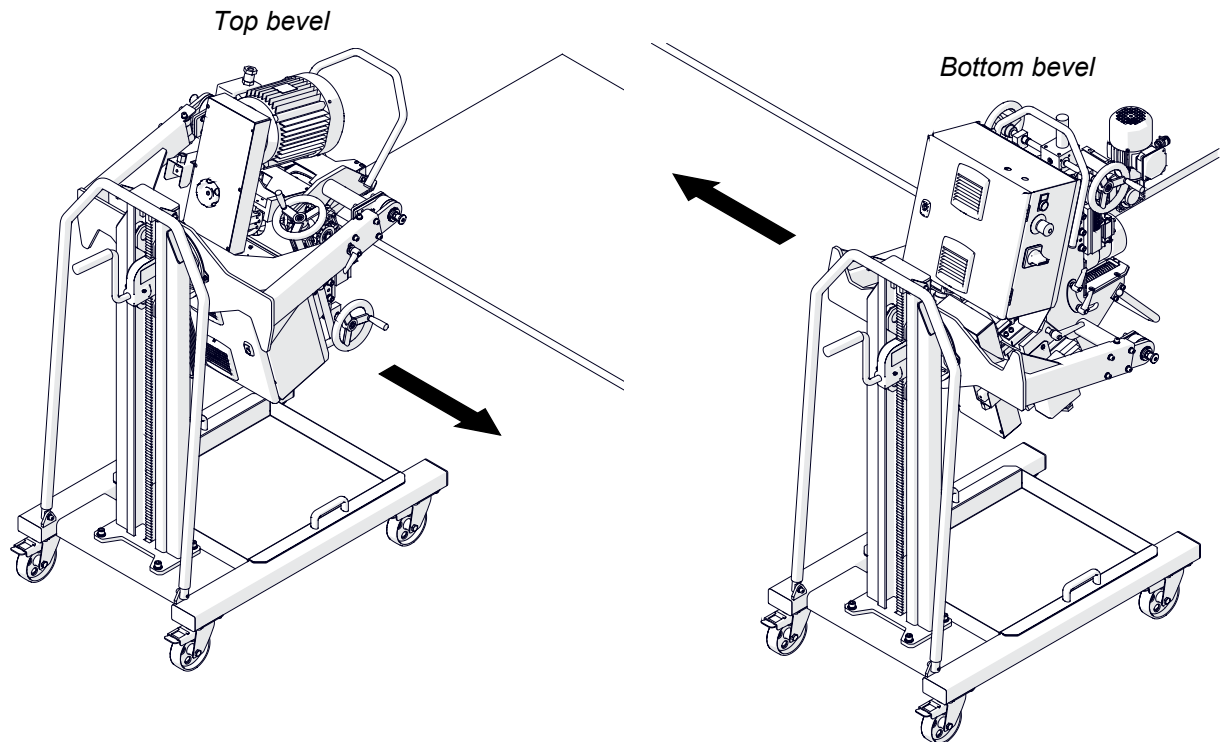
3.4. Putting the machine on the plate

Use the crank (1) to set the height of the horizontal base (2) to the height of the plate. Loosen the lever (3) and tilt the machine (4) to make the horizontal base (2) parallel to the plate. Use the crank (5) to set the plate thickness on the scale (6). Put the machine on the correct side for the top bevel or the bottom bevel (7). Then, move the machine to the plate (8) so that the milling head is not in contact with the plate (9).

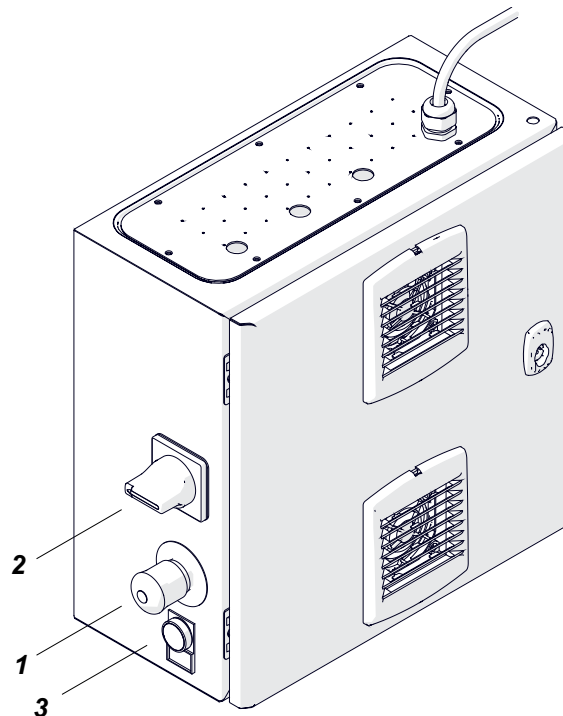


3.5. Operating

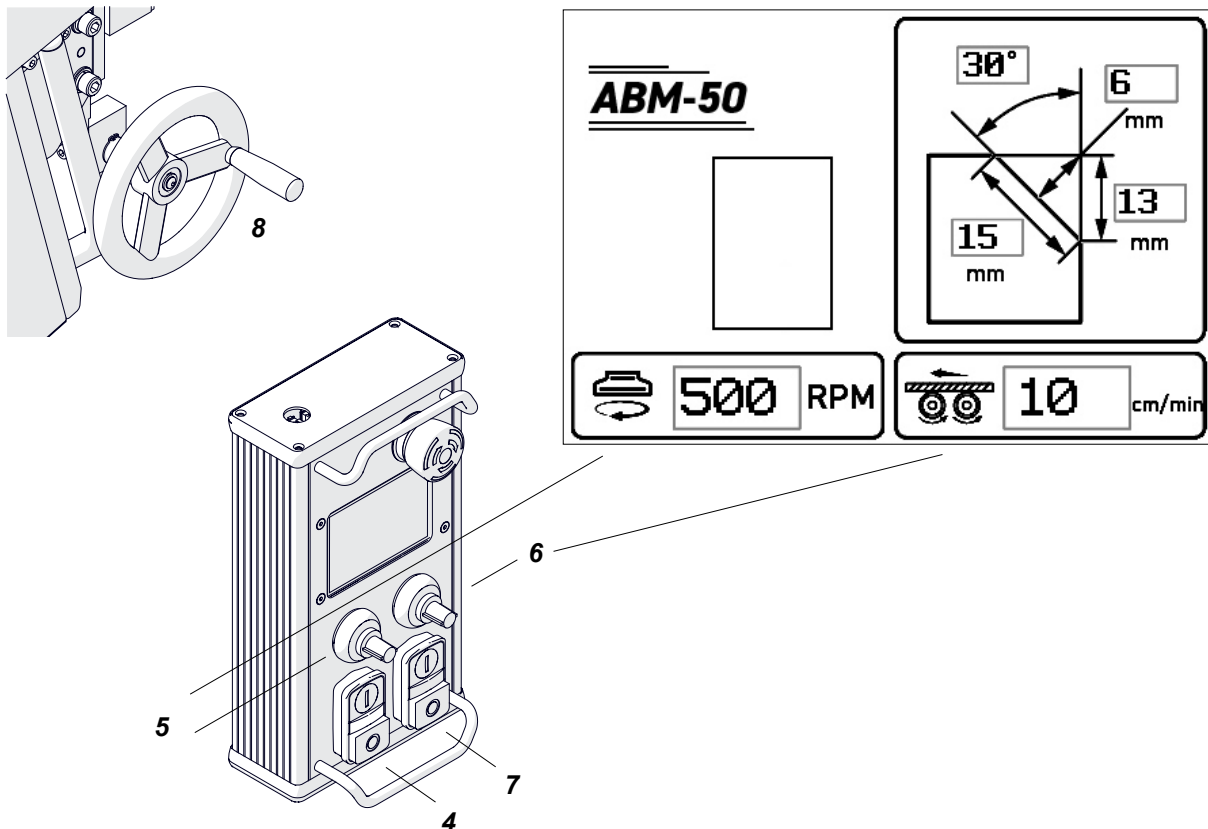
Make sure that the machine is put as below to bevel in the shown directions.



Connect the machine to the power source and make sure that all emergency switches (1) are unlocked. Then, turn on the power (2) and press START (3).



Start the spindle (4) and set its required speed (5). Set the feed speed to the minimum (6), and then start the feed (7). Move the machine in the correct direction for the top bevel or the bottom bevel. After all four wheels are on the plate, rotate the crank (8) two times to press the machine to the plate.



Keep the feed speed below 20 cm/min until all four wheels are on the plate. Then, you can increase the feed speed.

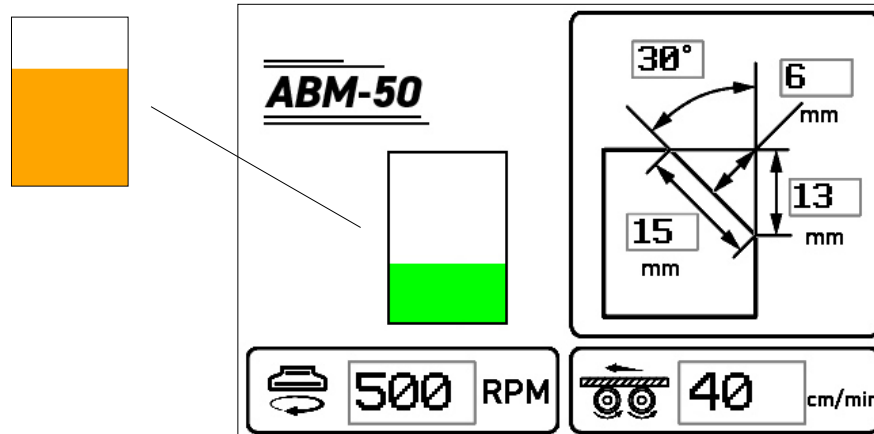
The correct speeds of the spindle and feed depend on the hardness, condition, and quantity of material, bevel angle, head depth, and condition of the cutting inserts.

To cut mild steel ($R_m < 600$ MPa [87,000 psi]), we recommend that you use a spindle speed of 700–800 rpm and a feed speed of 30–100 cm/min.

To cut hard steel ($R_m \geq 600$ MPa), we recommend that you use a spindle speed of 450–600 rpm and a feed speed of 15–50 cm/min.

If the speeds are selected too high or too low for the hardness of material, the inserts will wear faster or be unable to cut the material.

If the work is optimal, the load indicator is green. If the machine operates near the overload, the color of the indicator changes to orange. Then, decrease the feed speed to make the indicator green again.



Constantly monitor the machine during travel and make sure that the machine is pressed against the plate. If the machine is near the plate end, set the feed speed below 20 cm/min. Hold the machine until it goes off the plate, and then turn off the spindle and feed.

To do a next pass, increase the depth of the milling head by at most 6 mm (1/4") and put the machine on the plate again. Before the start of the spindle and feed make sure that the milling head is not in contact with the plate.

Do next passes until you get the required bevel parameters. The table that follows shows the required minimum number of passes.

Bevel angle	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°
Maximum bevel width [mm]	66	59	55	52	51	50	50	50	51	51
Minimum number of passes	4	4	4	5	5	5	5	5	5	5

In an emergency, press one of emergency switches. Then, to restart the machine, wait 60 seconds, unlock the switch, and press START.

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

Set the angle as described before only after you unplug the machine from the power source.

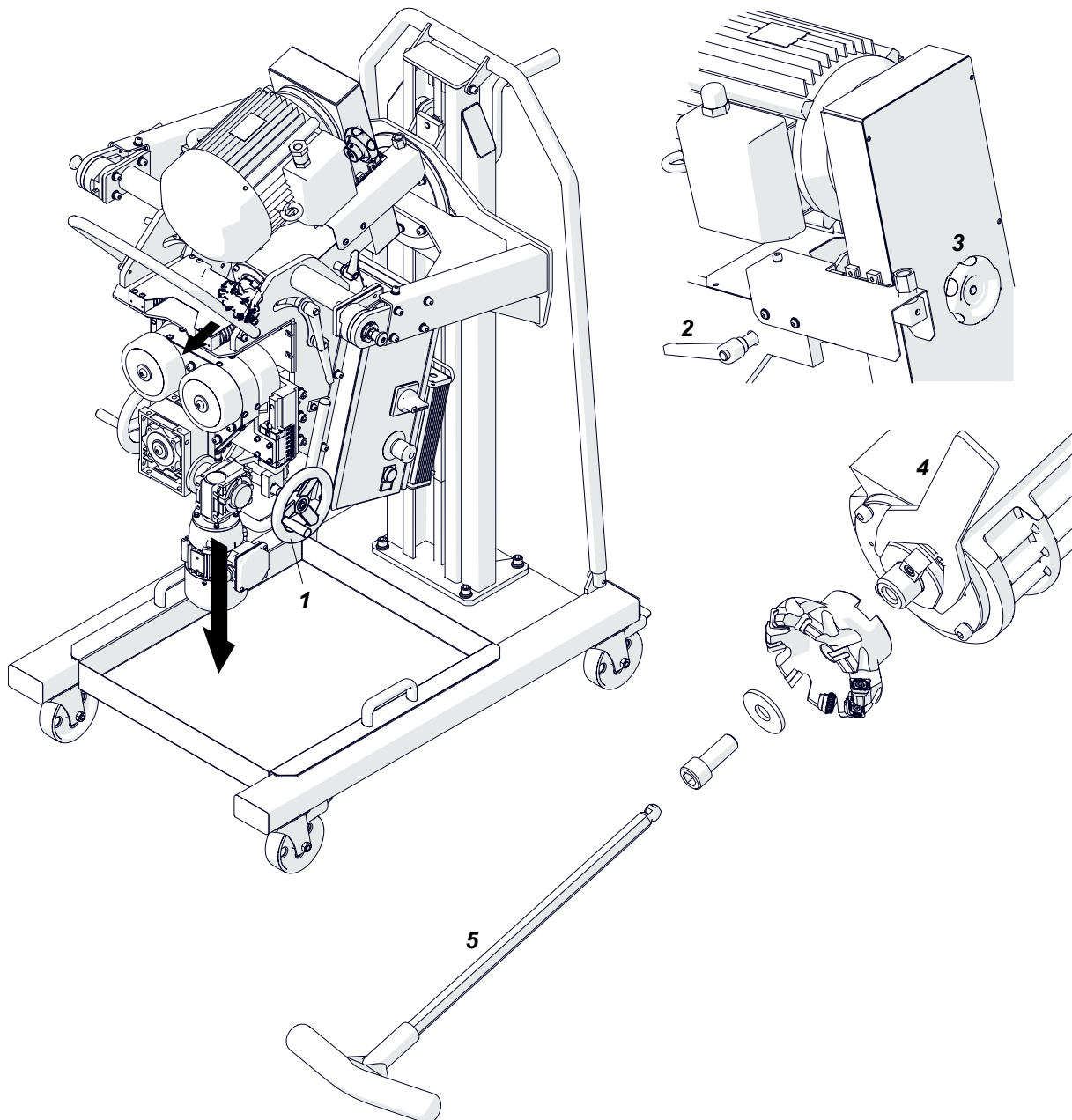
Clean the machine with a cotton cloth and no chemical agents.

3.6. Removing and installing the milling head

Unplug the machine from the power source and use the crank (1) to move the feed unit away. Loosen the lever (2) and use knob (3) to move out the milling head to get better access to it.

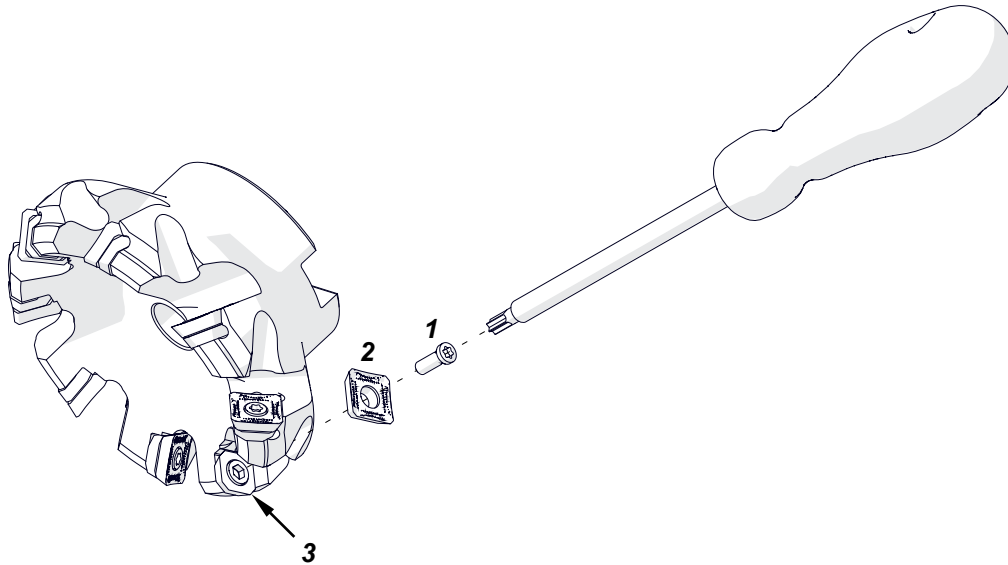
Use the special wrench to prevent the rotation of the spindle (4) and use the 10 mm hex wrench to remove the head (5).

To install the head, put it onto the spindle. Then, prevent the rotation of the spindle and use the 10 mm hex wrench, screw, and washer to tighten the head.



3.7. Replacing the cutting inserts

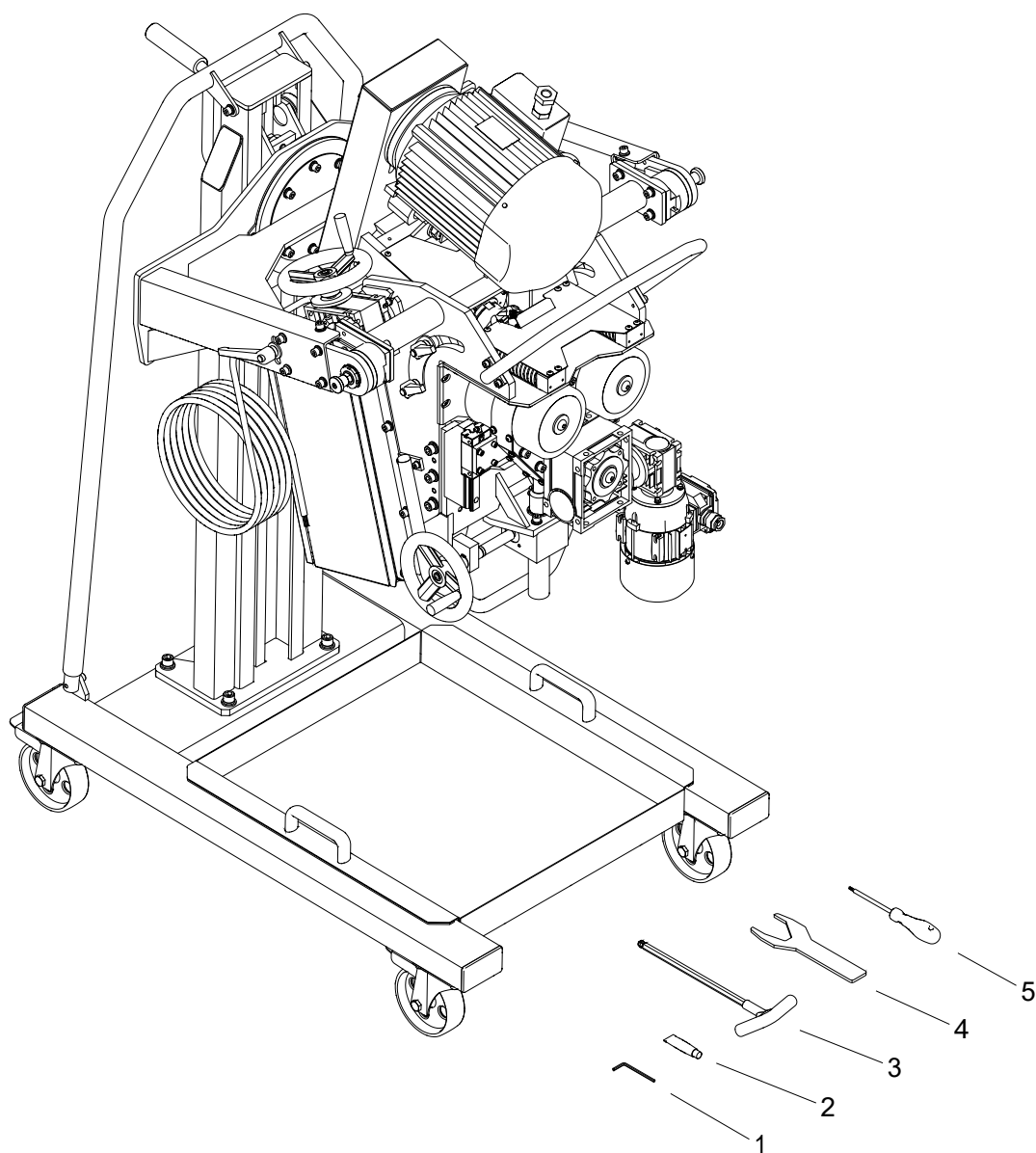
Remove the milling head as described before. Use the screwdriver to remove the fixing screw (1) and the cutting insert (2), and then clean the shim (3). Rotate the insert by 90° and install it again. If all four edges of the insert are worn, install a new insert. Press the insert so that its bottom is in full contact with the shim, and then tighten with the screw.



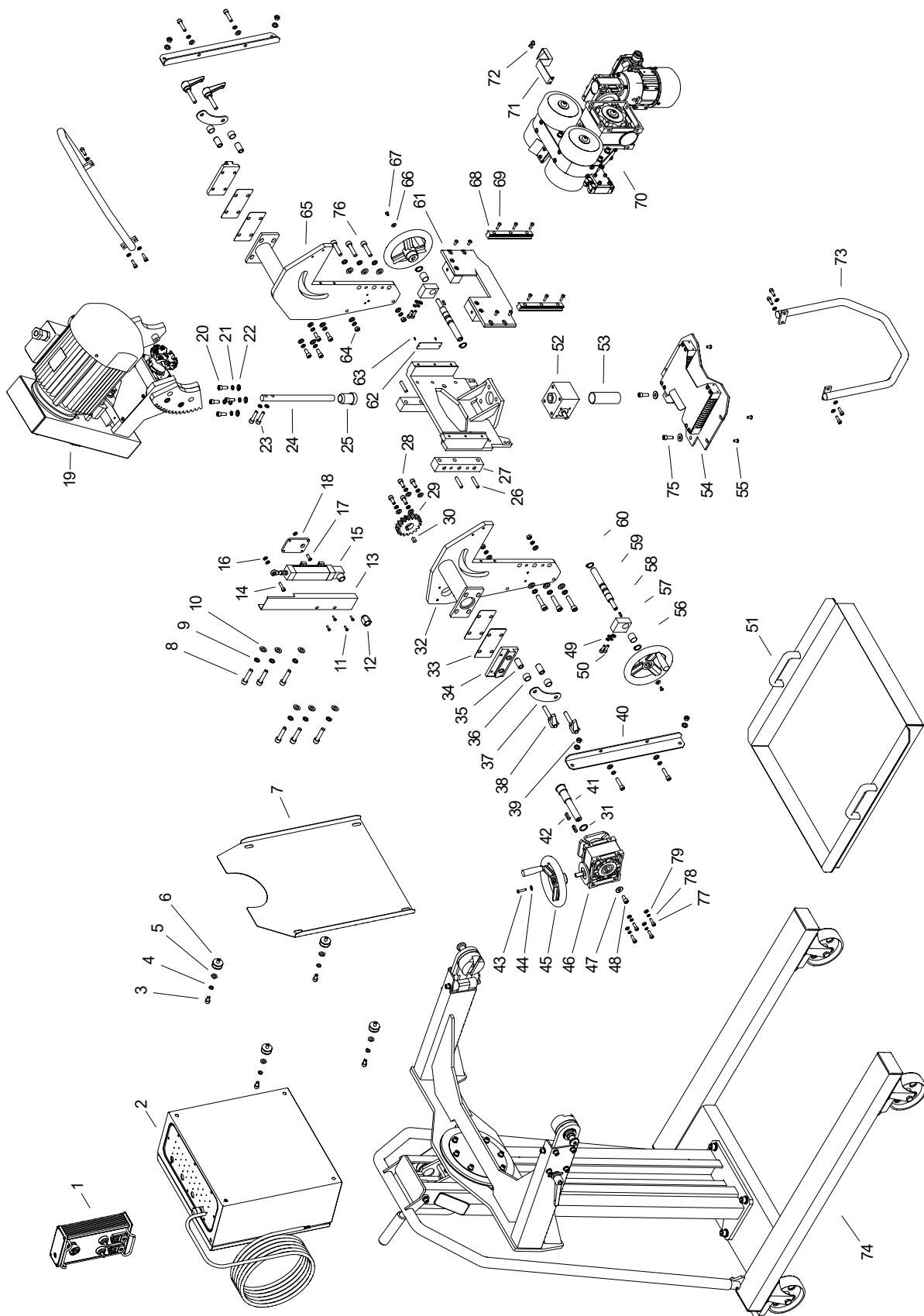
4. ACCESSORIES

Part number	Part name
PLY-000282	Cutting insert for steel (8 required, sold 10 per box)

5. PARTS LIST

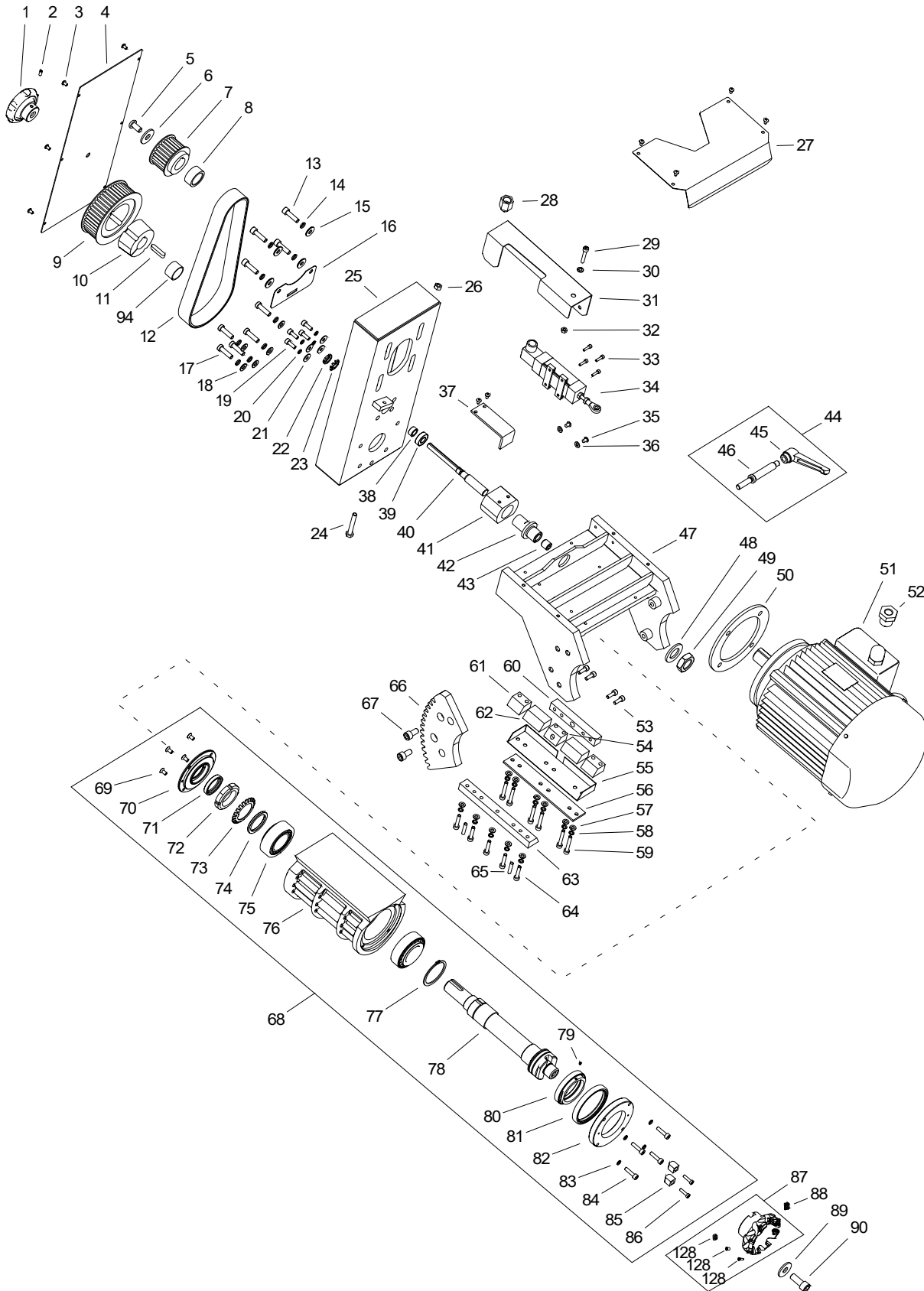


ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	KLC-000065	3.5 MM HEX WRENCH	1
2	SMR-000005	GREASE FOR SCREWS	1
3	KLC-000076	10 MM HEX WRENCH WITH HANDLE	1
4	KLC-0627-30-00-00-0	SPECIAL WRENCH	1
5	WKT-000004	TORX SCREWDRIVER T15	1



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	PNL-0627-27-00-00-0	REMOTE CONTROL	1
1	PNL-0627-27-00-01-0	REMOTE CONTROL - US	1
2	SZF-0627-31-00-00-0	CONTROL BOX ASSY	1
3	SRB-000141	HEX SOCKET HEAD CAP SCREW M8x14	4
4	PDK-000051	SPRING WASHER 8.2	4
5	PDK-000022	ROUND WASHER 8.4	4
6	WBR-0461-14-00-00-0	DAMPER	4
7	BLC-0627-20-00-00-0	CONTROL BOX COVER	1
8	SRB-000215	HEX SOCKET HEAD CAP SCREW M10x45	6
9	PDK-000052	SPRING WASHER 10.2	12
10	PDK-000026	ROUND WASHER 10.5	12
11	SRB-000062	HEX SOCKET HEAD CAP SCREW M4x12	4
12	TLJ-0627-01-26-00-0	ADAPTER PG9/M16x1.5	1
13	OSL-0627-25-00-00-0	POTENTIOMETER COVER	1
14	SRB-000117	HEX SOCKET HEAD CAP SCREW M6x25	1
15	CZJ-000040	LINEAR POTENTIOMETER	1
16	PDK-000021	ROUND WASHER 6.4	19
17	WKR-000143	HEX SOCKET COUNTERSUNK HEAD SCREW M6x20	1
18	PLY-0627-19-00-00-0	POTENTIOMETER PLATE	1
19	ZSP-0627-01-00-00-0	MILLING SET ASSY	1
20	SRB-000150	HEX SOCKET HEAD CAP SCREW M8x22	4
21	PDK-000051	SPRING WASHER 8.2	22
22	PDK-000022	ROUND WASHER 8.4	24
23	SRB-000156	HEX SOCKET HEAD CAP SCREW M8x35	6
24	SRB-0627-08-00-00-0	BOLT 18x4	1
25	OSL-0627-33-00-00-0	BOLT COVER	1
26	KLK-000073	DOWEL PIN 8n6x40	4
27	WSP-0627-05-00-00-0	FEED SET MOUNTING BLOCK	2
28	SRB-000148	HEX SOCKET HEAD CAP SCREW M8x20	8
29	KOL-0627-14-00-00-0	GEAR z=18	1
30	WPS-0627-15-00-00-0	KEY	1
31	PDK-000267	WASHER 19x26x1	1
32	PLY-0627-10-00-00-0	LEFT PLATE ASSY	1
33	PDK-0627-36-00-00-0	SPACER	4
34	WSP-0627-24-00-00-0	KEY SUPPORT	2
35	TLJ-0627-18-00-00-0	GUIDE BUSHING	4
36	TLJ-0627-13-00-00-0	SLEEVE	4
37	PDK-0627-17-00-00-0	SPECIAL WASHER	2
38	RKJ-000074	HANDLEVER M10-50	4
39	NKR-000019	HEX NUT M8	4
40	WSP-0627-21-00-00-0	CONTROL BOX BRACKET	2
41	WLK-0627-12-00-00-0	ANGLE SET SHAFT	1
42	WPS-000085	KEY 6x6x25	2
43	WKR-000401	HEX SOCKET BUTTON HEAD SCREW M5x25	1
44	PDK-000036	ROUND WASHER 5.5	1
45	KOL-0627-16-00-00-0	WHEEL	3
46	PKL-000067	GEARBOX	1
47	PDK-000039	ROUND WASHER 8.5	3
48	SRB-000142	HEX SOCKET HEAD CAP SCREW M8x16	1
49	PDK-000046	SPRING WASHER 6.1	4
50	SRB-000114	HEX SOCKET HEAD CAP SCREW M6x20	12
51	ZBN-0627-35-00-00-0	CHIP CONTAINER	1

ITEM	PART NUMBER	DESCRIPTION	Q-TY
52	PDN-000001	JACK	1
53	TLJ-000137	BOLT COVER SLEEVE	1
54	BZA-0627-04-00-00-1	HORIZONTAL BASE ASSY	1
55	WKR-000290	HEX SOCKET BUTTON HEAD SCREW M6x12	8
56	PRS-000008	EXTERNAL RETAINING RING 18z	4
57	TLJ-000031	SLIDE BUSHING 18x20x20	2
58	MCW-0627-06-00-00-0	SHAFT MOUTING BLOCK	2
59	WPS-000109	KEY 4x4x16	2
60	WLK-0627-07-00-00-0	JACK SHAFT	2
61	PRW-0627-38-00-00-1	VERTICAL GUIDE	1
62	LNL-0627-28-00-00-1	SCALE	1
63	NIT-000014	RIVET 2x6	2
64	NKR-000019	HEX NUT M8	4
65	PLY-0627-11-00-00-0	RIGHT PLATE ASSY	1
66	PDK-000036	ROUND WASHER 5.5	2
67	WKR-000289	HEX SOCKET BUTTON HEAD SCREW M5x8	2
68	SNA-000057	GUIDE	2
69	SRB-000083	HEX SOCKET HEAD CAP SCREW M5x16	6
70	ZSP-0627-02-00-00-0	FEED SET ASSY	1
71	WSK-0627-29-00-00-1	GAUGE	1
72	WKR-000495	HEX SOCKET BUTTON HEAD SCREW M6x8	2
73	UCW-0627-26-00-00-0	HOLDER ASSY	2
74	WOZ-0627-22-00-00-0	TROLLEY	1
75	SRB-000152	HEX SOCKET HEAD CAP SCREW M8x25	2
76	SRB-000047	HEX SOCKET HEAD CAP SCREW M10x30	6
77	SRB-000148	HEX SOCKET HEAD CAP SCREW M8x20	4
78	PDK-000051	SPRING WASHER 8,2	4
79	PDK-000022	ROUND WASHER 8.4	4

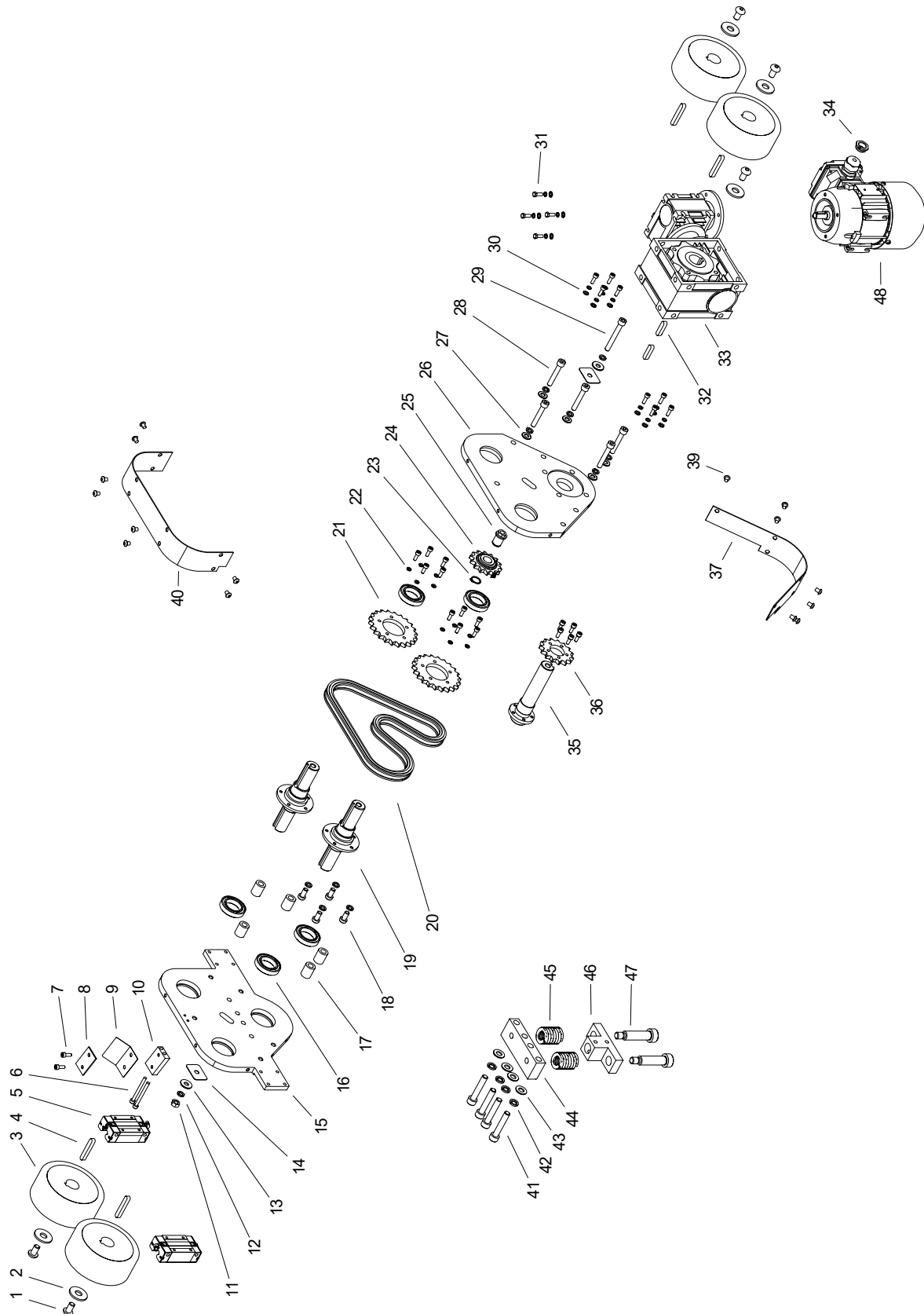


ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	PKT-0627-01-17-00-0	KNOB	1
2	WKR-000044	HEX SOCKET SET SCREW WITH FLAT POINT M5x12	1
3	WKR-000289	HEX SOCKET BUTTON HEAD SCREW M5x8	12

ITEM	PART NUMBER	DESCRIPTION	Q-TY
4	OSL-0627-01-24-00-1	BELT DRIVE COVER	1
5	WKR-000381	HEX SOCKET BUTTON HEAD SCREW M10x20	1
6	PDK-000103	ROUND WASHER 13	1
7	KOL-0627-01-20-00-0	SMALL GEAR	1
8	TLJ-0627-01-21-00-0	SLEEVE	1
9	KOL-000153	GEAR	1
10	TLJ-000138	CONICAL SLEEVE	1
11	WPS-000105	KEY 8x7x35	1
12	PAS-000025	TOOTHED BELT	1
13	SRB-000155	HEX SOCKET HEAD CAP SCREW M8x30	4
14	PDK-000051	SPRING WASHER 8.2	9
15	PDK-000039	ROUND WASHER 8.5	4
16	OSL-0627-01-22-00-0	INTERNAL COVER	1
17	SRB-000399	HEX SOCKET HEAD CAP SCREW M8x30	5
18	PDK-000022	ROUND WASHER 8.4	5
19	SRB-000111	HEX SOCKET HEAD CAP SCREW M6x18	4
20	PDK-000046	SPRING WASHER 6.1	4
21	PDK-000037	ROUND WASHER 6.5	4
22	NKR-000135	BEARING NUT KM-1 M12x1	1
23	PDK-000179	BEARING TOOTHED WASHER MB-1	1
24	SRB-000234	FULL THREAD HEX HEAD SCREW M8x55	1
25	RMK-0627-01-01-00-3	FRAME ASSY	1
26	NKR-000019	HEX NUT M8	1
27	OSL-0627-01-27-00-0	COVER	1
28	TLJ-0627-01-26-00-0	ADAPTER PG9/M16x1.5	1
29	SRB-000123	HEX SOCKET HEAD CAP SCREW M6x35	1
30	PDK-000021	ROUND WASHER 6.4	1
31	WSP-0627-01-19-00-0	SENSOR SUPPORT	1
32	NKR-000017	HEX NUT M6	1
33	SRB-000064	HEX SOCKET HEAD CAP SCREW M4x16	4
34	CZJ-000039	LINEAR POTENTIOMETER	1
35	WKR-000495	HEX SOCKET BUTTON HEAD SCREW M6x8	2
36	PDK-000021	ROUND WASHER 6.4	2
37	BLD-0627-01-25-00-0	FEED SET LOCK	1
38	TLJ-0627-01-23-00-0	SLEEVE	1
39	LOZ-000038	BALL BEARING 12x28x8	1
40	SRB-0627-01-16-00-0	SETTING BOLT	1
41	OPR-0627-01-12-00-0	BEARING HOLDER	1
42	NKR-0627-01-14-00-0	NUT	1
43	WKR-000493	HEX SOCKET SET SCREW WITH FLAT POINT M16x1.5x16	1
44	SRB-0627-01-11-00-0	SPINDLE LOCK BOLT ASSY	1
45	RKJ-000068	HANDLEVER M10	1
46	SRB-0627-01-11-01-0	SPINDLE LOCK BOLT	1
47	MCW-0627-01-03-00-1	SPINDLE BRACKET	1
48	PDK-0627-01-15-00-0	WASHER	1
49	NKR-000138	LOW HEX NUT M24x1.5	1
50	PLY-0627-01-13-00-0	MOTOR SPACER	1
51	SLN-000237	MOTOR	1
52	PRP-0573-02-06-00-0	CABLE GLAND	1
53	SRB-000111	HEX SOCKET HEAD CAP SCREW M6x18	4
54	WSP-0627-01-07-00-0	LOCK SUPPORT	1
55	BLC-0627-01-09-00-0	SLIDE LOCK COVER	1

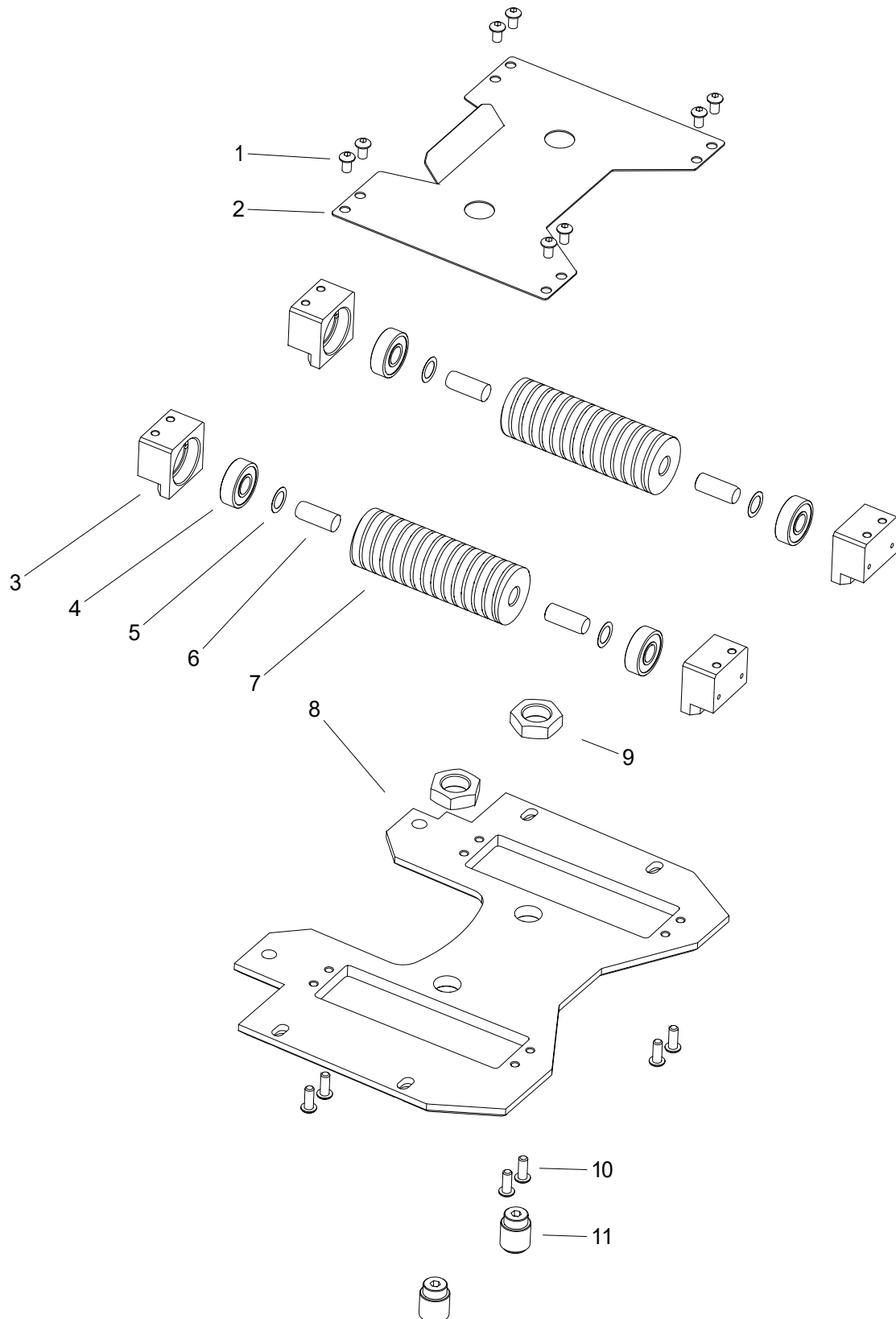
ITEM	PART NUMBER	DESCRIPTION	Q-TY
56	PLS-0627-01-18-00-0	PLATE	1
57	PDK-000021	ROUND WASHER 6.4	11
58	PDK-000046	SPRING WASHER 6.1	11
59	SRB-000124	HEX SOCKET HEAD CAP SCREW M6x40	6
60	WSP-0627-01-10-00-0	SLIDE LOCK SUPPORT	1
61	PRW-0627-01-06-00-0	GUIDE 40	2
62	BLD-0627-01-08-00-0	SLIDE LOCK	2
63	PRW-0627-01-05-00-0	GUIDE 200	1
64	SRB-000118	HEX SOCKET HEAD CAP SCREW M6x30	5
65	KLK-000062	DOWEL PIN 6x6x28	2
66	TRC-0627-01-04-00-0	SECTOR GEAR	1
67	SRB-000045	HEX SOCKET HEAD CAP SCREW M10x20	2
68	WRZ-0627-01-02-00-0	SPINDLE	1
69	WKR-000141	HEX SOCKET COUNTERSUNK HEAD SCREW M6x12	4
70	PKR-0627-01-02-04-0	BACK COVER	1
71	PRS-000076	SEAL 32x45x7	1
72	NKR-000110	BEARING NUT KM-8 M40x1.5	1
73	PDK-000245	BEARING TOOTHED WASHER MB-8	1
74	PRS-0627-01-02-02-0	DISTANCE RING	1
75	LOZ-000188	TAPERED ROLLER BEARING 40x75x26	2
76	KRP-0627-01-02-03-1	SPINDLE BODY	1
77	PRS-000363	EXTERNAL RETAINING RING 56z	1
78	WLK-0627-01-02-01-0	SPINDLE SHAFT	1
79	WKR-000311	HEX SOCKET SET SCREW WITH FLAT POINT M4x4	1
80	NKR-0627-01-02-06-0	NUT	1
81	PRS-000365	SEAL 75x90x10	1
82	PKR-0627-01-02-07-0	FRONT COVER	1
83	PDK-000046	SPRING WASHER 6.1	4
84	SRB-000117	HEX SOCKET HEAD CAP SCREW M6x25	4
85	WPS-0627-01-02-05-0	KEY	2
86	SRB-000041	LOW HEAD SOCKET CAP SCREW M5x20	2
87	GLW-000033	MILLING HEAD	1
88*	PLY-000282	CUTTING INSERT 13	8
88	PLY-000591	CUTTING INSERT 13	8
89	PDK-000103	ROUND WASHER 13	1
90	SRB-000053	HEX SOCKET HEAD CAP SCREW M12x30	1
91	PDK-000268	SHIM	8
92	SRB-000466	SHIM SCREW	8
93	SRB-000465	CLAMP SCREW	8
94	TLJ-0627-01-31-00-0	SLEEVE	1

*optional



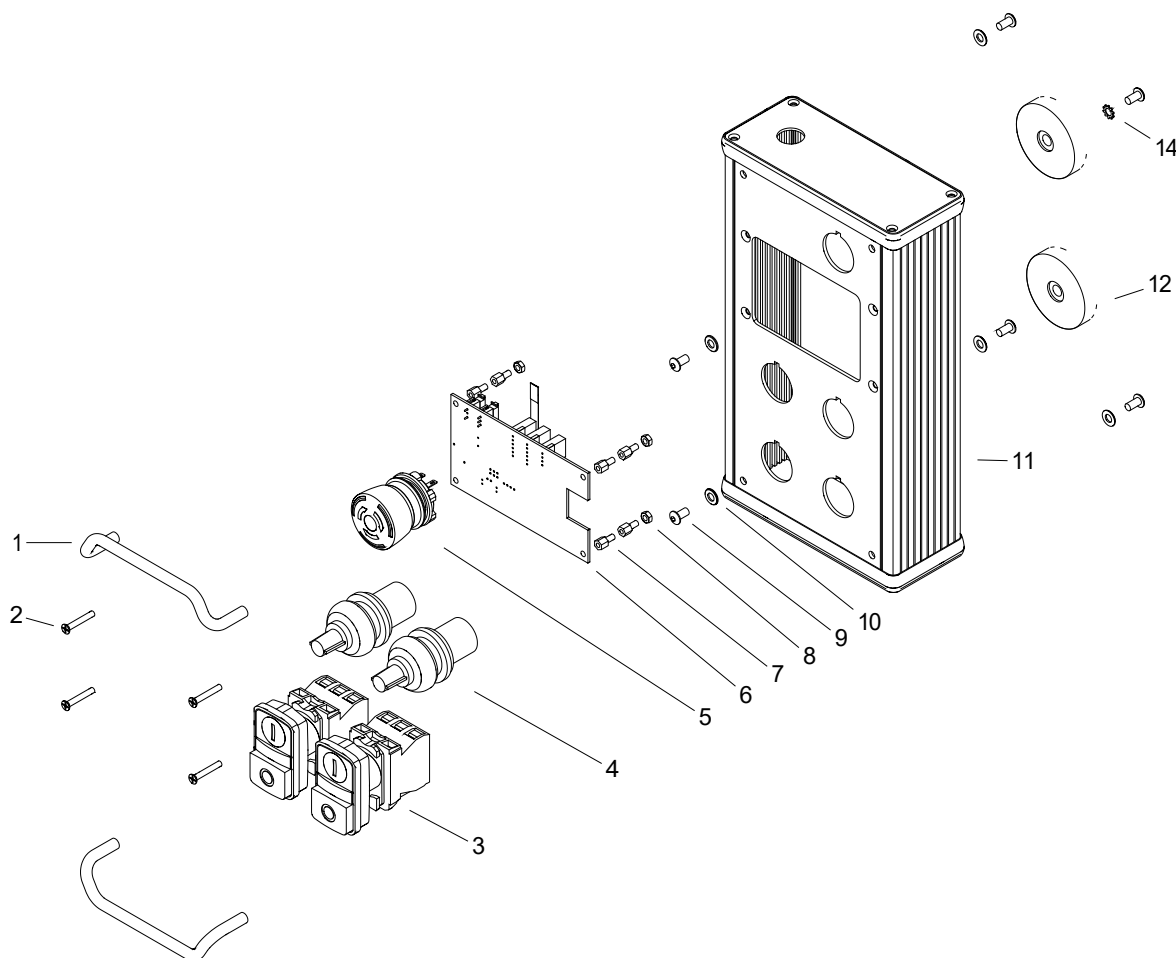
ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	WKR-000544	HEX SOCKET BUTTON HEAD SCREW M10x16	5
2	PDK-000103	ROUND WASHER 13	5
3	KOL-0627-02-27-00-0	WHEEL	4

ITEM	PART NUMBER	DESCRIPTION	Q-TY
4	WPS-000108	KEY 8x7x50	4
5	PRW-000068	CARRIAGE	2
6	SRB-000095	HEX SOCKET HEAD CAP SCREW M5x55	2
7	SRB-000082	HEX SOCKET HEAD CAP SCREW M5x14	17
8	BLC-0627-02-16-00-0	COWCATCHER PLATE	1
9	ZGR-0627-02-19-00-0	0.5 COWCATCHER	1
10	PDP-0627-02-17-00-0	COWCATCHER SUPPORT	1
11	NKR-000019	HEX NUT M8	1
12	PDK-000051	SPRING WASHER 8.2	11
13	PDK-000039	ROUND WASHER 8.5	2
14	PDK-0627-02-10-00-0	WASHER	2
15	PLY-0627-02-02-00-0	BACK PLATE	1
16	LOZ-000187	BALL BEARING 47x30x9	5
17	TLJ-0627-02-08-00-0	DISTANCE SLEEVE	5
18	SRB-000437	LOW HEAD SOCKET CAP SCREW M8x16	4
19	WLK-0627-02-03-00-0	DRIVE SHAFT	2
20	LNC-0627-02-07-00-0	CHAIN	1
21	KOL-0627-02-14-00-0	CHAIN GEAR	2
22	PDK-000044	SPRING WASHER 5.1	22
23	PRS-000238	EXTERNAL RETAINING RING 16z	1
24	KOL-000140	TENSION CHAIN GEAR	1
25	TLJ-0627-02-06-00-0	CHAIN GEAR SLEEVE	1
26	PLY-0627-02-01-00-0	FRONT PLATE	1
27	PDK-000022	ROUND WASHER 8.4	4
28	SRB-000159	HEX SOCKET HEAD CAP SCREW M8x50	5
29	SRB-000161	HEX SOCKET HEAD CAP SCREW M8x65	1
30	PDK-000017	ROUND WASHER 5.3	12
31	SRB-000448	FULL THREAD HEX HEAD SCREW M5x14	4
32	WPS-000086	PARALLEL KEY 8x7x32	2
33	PKL-000061	GEARBOX	1
34	RDC-000004	ADAPTER M20x1.5/M16x1.5	1
35	WLK-0627-02-05-00-0	MOTOR SHAFT	1
36	KOL-0627-02-04-00-0	DRIVE CHAIN GEAR	1
37	OSL-0627-02-13-00-0	GEARBOX BOTTOM COVER	1
39	WKR-000495	HEX SOCKET BUTTON HEAD SCREW M6x8	15
40	OSL-0627-02-09-00-0	GEARBOX COVER	1
41	SRB-000050	HEX SOCKET HEAD CAP SCREW M10x55	4
42	PDK-000052	SPRING WASHER 10.2	4
43	PDK-000026	ROUND WASHER 10.5	4
44	WSP-0627-02-12-00-0	SPRING SUPPORT	1
45	SPR-000083	SPRING	2
46	MCW-0627-02-11-00-0	SPRING BRACKET	1
47	SRB-000441	HEX SOCKET HEAD SHOULDER SCREW fi16 M12x55	2
48	SLN-000236	MOTOR	1



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	WKR-000100	HEX SOCKET BUTTON HEAD SCREW M6x10	8
2	OSL-0627-04-04-00-0	ROLLER COVER	1
3	WSP-0627-04-02-00-0	ROLLER HOLDER	4
4	LOZ-000189	BALL BEARING 12x32x10	4

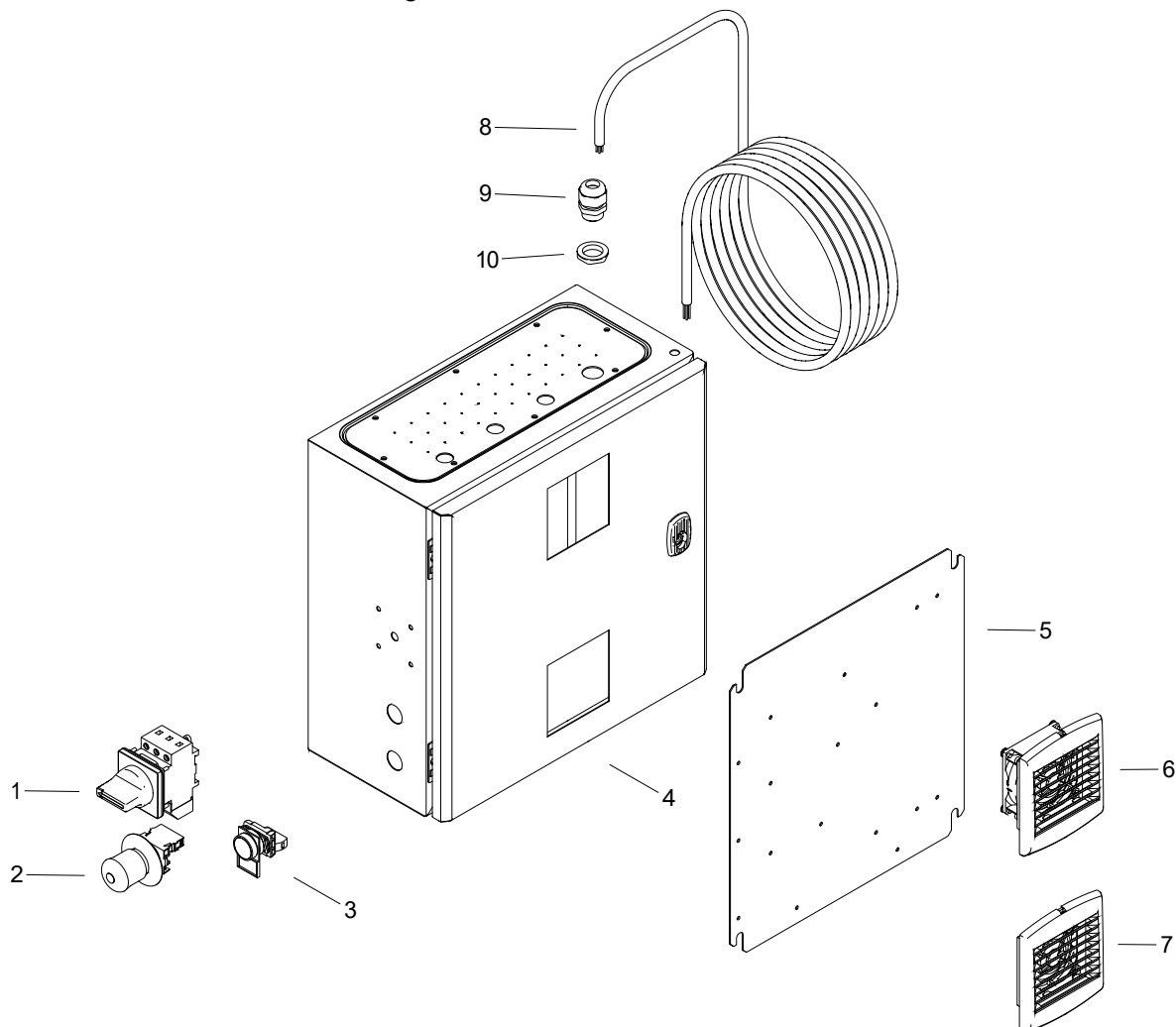
ITEM	PART NUMBER	DESCRIPTION	Q-TY
5	PDK-000178	WASHER 12x18x0.2	4
6	KLK-000127	DOWEL PIN 12m6x30	4
7	RLK-0627-04-03-00-0	ROLLER	2
8	PLY-0627-04-01-00-1	HORIZONTAL BASE PLATE	1
9	NKR-000091	LOW HEX NUT M20x1.5	2
10	WKR-000101	HEX SOCKET BUTTON HEAD SCREW M6x16	8
11	RLK-0627-04-05-00-0	ROLLER ASSY	2



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	OSL-0627-27-03-00-0	COVER	2
2	WKR-000148	CROSS RECESSED COUNTERSUNK HEAD SCREW M3x20	4
3	PRC-000044	START-STOP BUTTON	2
4	PTN-000037	POTENTIOMETER	2
5	PRC-000031	EMERGENCY BUTTON	1
6	MDL-0627-80-01-00-0	MODULE	1
6	MDL-0627-80-02-00-0	MODULE - US	1
7	TLJ-000026	SLEEVE M3x5	8
8	NKR-000009	HEX NUT M3	4
9	WKR-000091	HEX SOCKET BUTTON HEAD SCREW M4x8	6
10	PDK-000016	ROUND WASHER 4.3	5
11	KRP-0627-27-01-00-0	REMOTE CONTROL BODY	1
12	MGS-000025	FI 43x5,5 MAGNET	2
13*	WYS-0627-80-03-00-0	DISPLAY	1

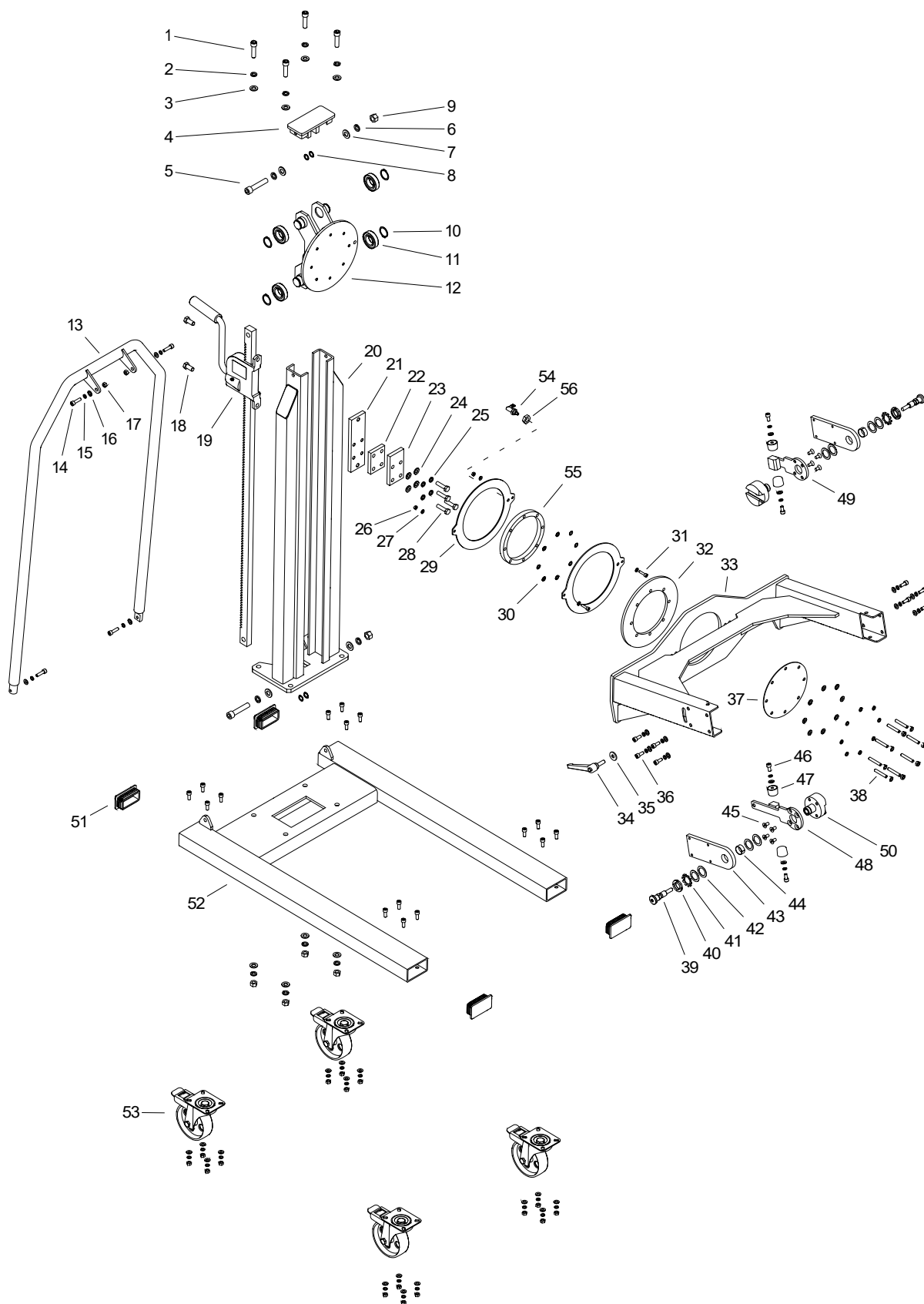
ITEM	PART NUMBER	DESCRIPTION	Q-TY
13*	WYS-0627-80-04-00-0	DISPLAY - US	1
14	PDK-000060	EXTERNAL TOOTH LOCK WASHER 4.3	1

*not shown in the drawing



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	RZL-000014	3-GEAR DISCONNECTOR	1
2	PRC-000026	EMERGENCY BUTTON	1
3	PRC-000037	START BUTTON	1
4	SZF-0627-31-01-00-0	CONTROL BOX	1
5	PLY-0627-31-02-01-0	MOUNTING PLATE	1
6	WNT-000014	FAN	1
7	FLT-000018	OUTLET GRILLE	1
8	KBL-000069	POWER CORD	1
9	DLW-000053	CABLE GLAND PG16	1
10	NKR-000163	GLAND NUT PG16	1
11*	PWD-0627-31-04-00-0	INVERTER WIRE SET	1
12*	PWD-0627-31-06-00-0	REMOTE CONTROL GROUNDING WIRE SET	1
13*	PRZ-0627-99-00-00-0	FEED FREQUENCY INVERTER 3x400V ASSY	1
13*	PRZ-0627-99-01-00-0	FEED FREQUENCY INVERTER 3x480V ASSY	1
14*	PRZ-0627-99-02-00-0	SPINDLE FREQUENCY INVERTER 3x400V ASSY	1
14*	PRZ-0627-99-03-00-0	SPINDLE FREQUENCY INVERTER 3x480V ASSY	1

*not shown in the drawing



ITEM	PART NUMBER	DESCRIPTION	Q-TY
1	SRB-000054	HEX SOCKET HEAD CAP SCREW M12x45	4
2	PDK-000053	SPRING WASHER 12.2	8

ITEM	PART NUMBER	DESCRIPTION	Q-TY
3	PDK-000118	ROUND WASHER 13	7
4	MCW-0627-22-18-00-0	GEAR RACK TOP SUPPORT	1
5	SRB-000439	HEX SOCKET HEAD CAP SCREW M14x70	2
6	PDK-000054	SPRING WASHER 14.2	4
7	PDK-000028	ROUND WASHER 15	4
8	PDK-000192	WASHER 14x26x0.2	19
9	NKR-000073	HEX NUT M14	1
10	PRS-000021	EXTERNAL RETAINING RING 30z	4
11	LOZ-000049	BALL BEARING 30x55x13	4
12	WOZ-0627-22-03-00-1	VERTICAL SLIDE CARRIAGE	1
13	UCW-0627-22-12-00-0	HANDLE ASSY	1
14	SRB-000155	HEX SOCKET HEAD CAP SCREW M8x30	4
15	PDK-000051	SPRING WASHER 8.2	40
16	PDK-000022	ROUND WASHER 8.4	40
17	NKR-000019	HEX NUT M8	26
18	SRB-000462	HEX SOCKET HEAD CAP SCREW M10x22	2
19	PDN-0627-22-17-00-0	JACK	1
20	WSP-0627-22-02-00-0	JACK SUPPORT ASSY	1
21	PLY-0627-22-04-00-0	JACK MOUNTING PLATE	1
22	PLY-0627-22-05-00-0	SMALL PLATE	1
23	PLY-0627-22-06-00-0	PLATE	1
24	PDK-000026	ROUND WASHER 10.5	4
25	PDK-000052	SPRING WASHER 10.2	4
26	NKR-000017	HEX NUT M6	2
27	PDK-000021	ROUND WASHER 6.4	4
28	SRB-000440	FULL THREAD HEX HEAD SCREW M10x40	4
29	PLY-0627-22-07-00-0	SILIDE PLATE	2
30	PDK-000242	WASHER 8x14x0.3	32
31	SRB-000117	HEX SOCKET HEAD CAP SCREW M6x25	2
32	PLY-0627-22-10-00-0	FRONT ROTARY LOCKING PLATE	1
33	UCW-0627-22-08-00-0	BEVELING MACHINE HOLDER	1
34	RKJ-000073	HANDLEVER M10-32	1
35	PDK-000039	ROUND WASHER 8.5	1
36	SRB-000148	HEX SOCKET HEAD CAP SCREW M8x20	24
37	OSL-0627-22-11-00-0	COVER	1
38	WKR-000542	HEX SOCKET SET SCREW WITH FLAT POINT M8x50	8
39	TRZ-0627-22-19-00-0	PIVOT	2
40	NKR-000133	BEARING NUT KM-5	2
41	PDK-000177	BEARING TOOTHED WASHER MB-5	2
42	PDK-000243	WASHER 26x38x0.3	8
43	MCW-0627-22-15-00-0	HANDLE MOUNTING PLATE	2
44	TLJ-000098	SELF LUBRICATING SLEEVE 25x28x12	2
45	WKR-000145	HEX SOCKET COUNTERSUNK HEAD SCREW M8x16	8
46	SRB-000142	HEX SOCKET HEAD CAP SCREW M8x16	20
47	WBR-000003	VIBRATION-DAMPING ELEMENT	4
48	PLY-0627-22-14-00-0	LEFT ROTARY LOCKING PLATE ASSY	1
49	PLY-0627-22-16-00-0	RIGHT ROTARY LOCKING PLATE ASSY	1
50	UCW-0627-22-13-00-0	HANDLE BLOCK	2
51	ZLP-000062	CAP 90x50x6	4
52	RMK-0627-22-01-00-0	TROLLEY FRAME	1
53	KOL-000158	WHEEL	4
54	TRZ-0627-22-20-00-0	INDEXING PLUNGER	1

ITEM	PART NUMBER	DESCRIPTION	Q-TY
55	WSP-0627-22-09-00-0	ROTATION SUPPORT	1
56	NKR-000084	LOW HEX NUT M16x1.5	1