

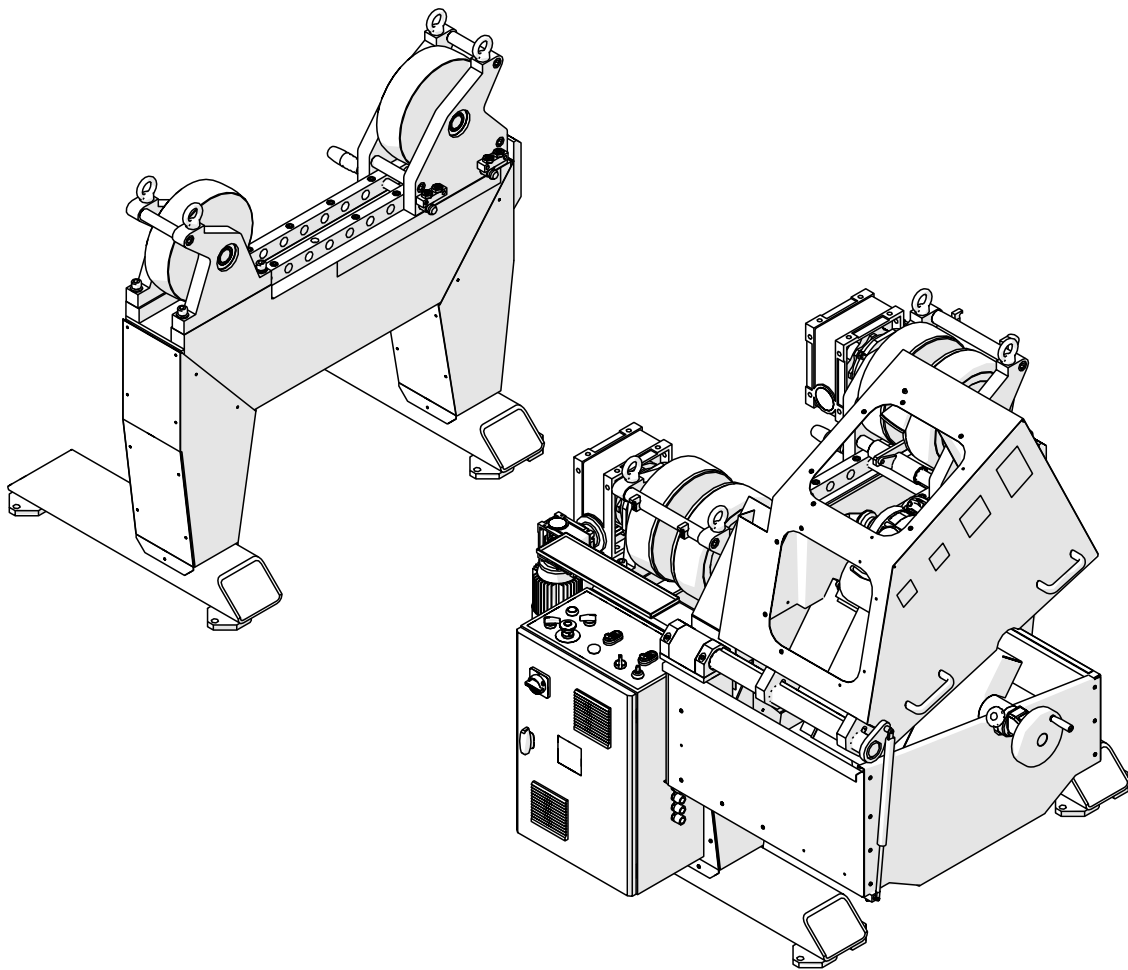


The tools of innovation.

OPERATOR'S MANUAL

PBM-1000

STATIONARY PIPE BEVELING MACHINE



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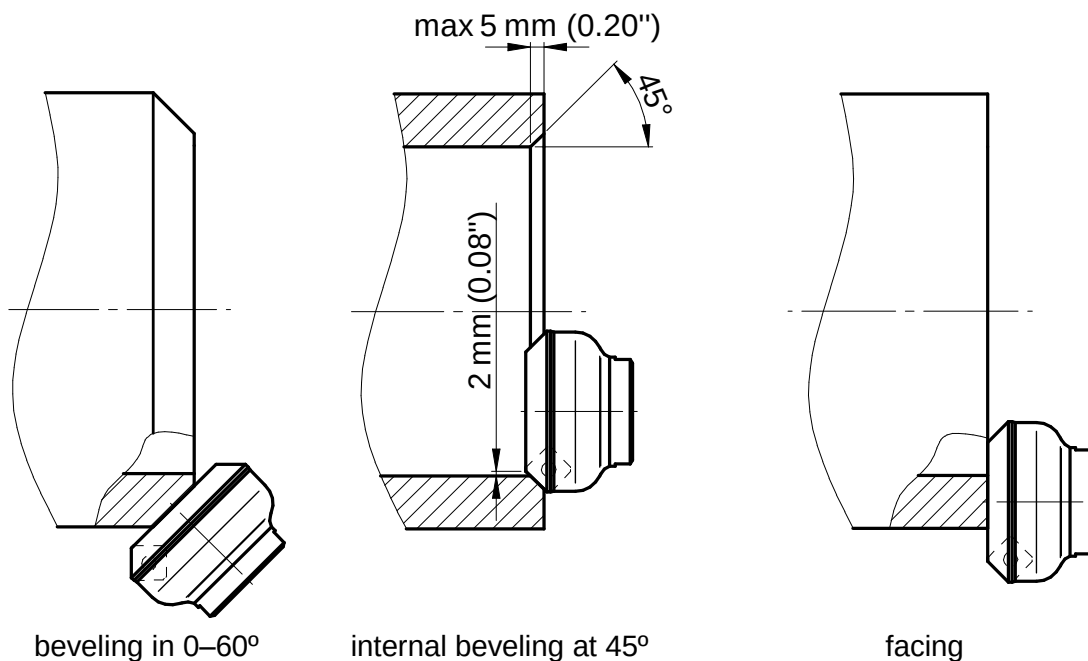


Read Operator's Manual before starting

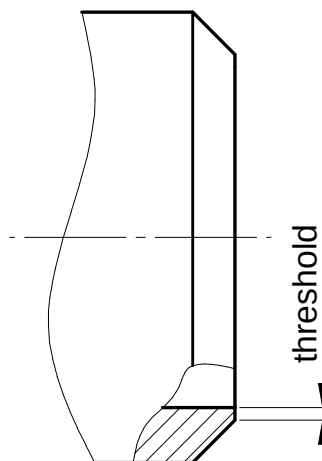
1. GENERAL INFORMATION

1.1. Application

The PBM-1000 Stationary Pipe Beveling Machine is designed for milling pipe edges of diameters from 200 mm (8") to 1016 mm (40") made of carbon steel. It performs beveling in a 0–60° angular range, bevels internal edges at 45° with maximum bevel depth of 5 mm (0.20") and enables facing. When equipped with one of the optional milling heads available on request, the machine enables performing J-bevels with radius of 6 mm (0.24") or 8 mm (0.31") as well as beveling internal edges in 0–60° range with maximum bevel width of 20 mm (0.79"). Using optional steel rollers increases the carrying capacity to 5000 kg (11 000 lbs) per support.



The value of attained threshold will be variable for pipe of variable thickness:



1.2. Technical data

Voltage	1~ 208–230 V, 50/60 Hz 3~ 208–230 V, 50/60 Hz
Total power	2000 W
Spindle power	1500 W
External pipe diameter range for pipes of 400–830 mm length (15.7–32.7")	200–600 mm (7.87–23.62")
External pipe diameter range for pipes longer than 830 mm (32.7")	200–1016 mm (7.87–40")
Peripheral speed	0.1–1.1 m/min (3.94–43.3 in/min.)
Rollers rotational speed	0.1–1.2 rpm
Spindle rotational speed	2800 rpm
Protection level	IP 20
Protection class	class I
Milling speed	555 m/min (1850 ft/min)
Maximum bevel width	$b \approx 45$ mm (1.77", Figure 1)
Bevel angle range	0–60° (β , Figure 1)
Minimum pipe thickness	5 mm (0.20")
Active support carrying capacity	5000 kg (11 000 lbs)*
Passive support carrying capacity	5000 kg (11 000 lbs)*
Maximum allowed pipe weight	10 000 kg (22 000 lbs)*
Machine weight	1100 kg (2400 lbs)
* For steel rollers of active support (not included in standard equipment). For plastic rollers of active support (standard), carrying capacity of each support is 3000 kg (6600 lbs) and maximum allowed pipe weight equals 6000 kg (13 200 lbs).	

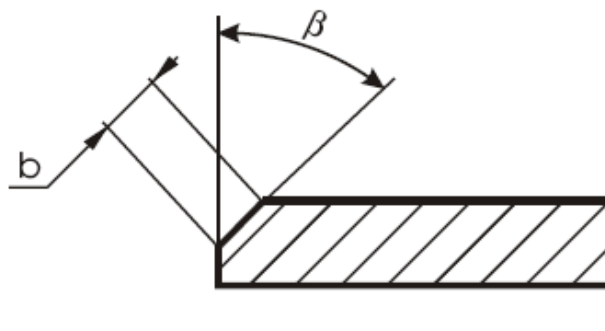


Figure 1. Bevel dimensions

1.3. Design

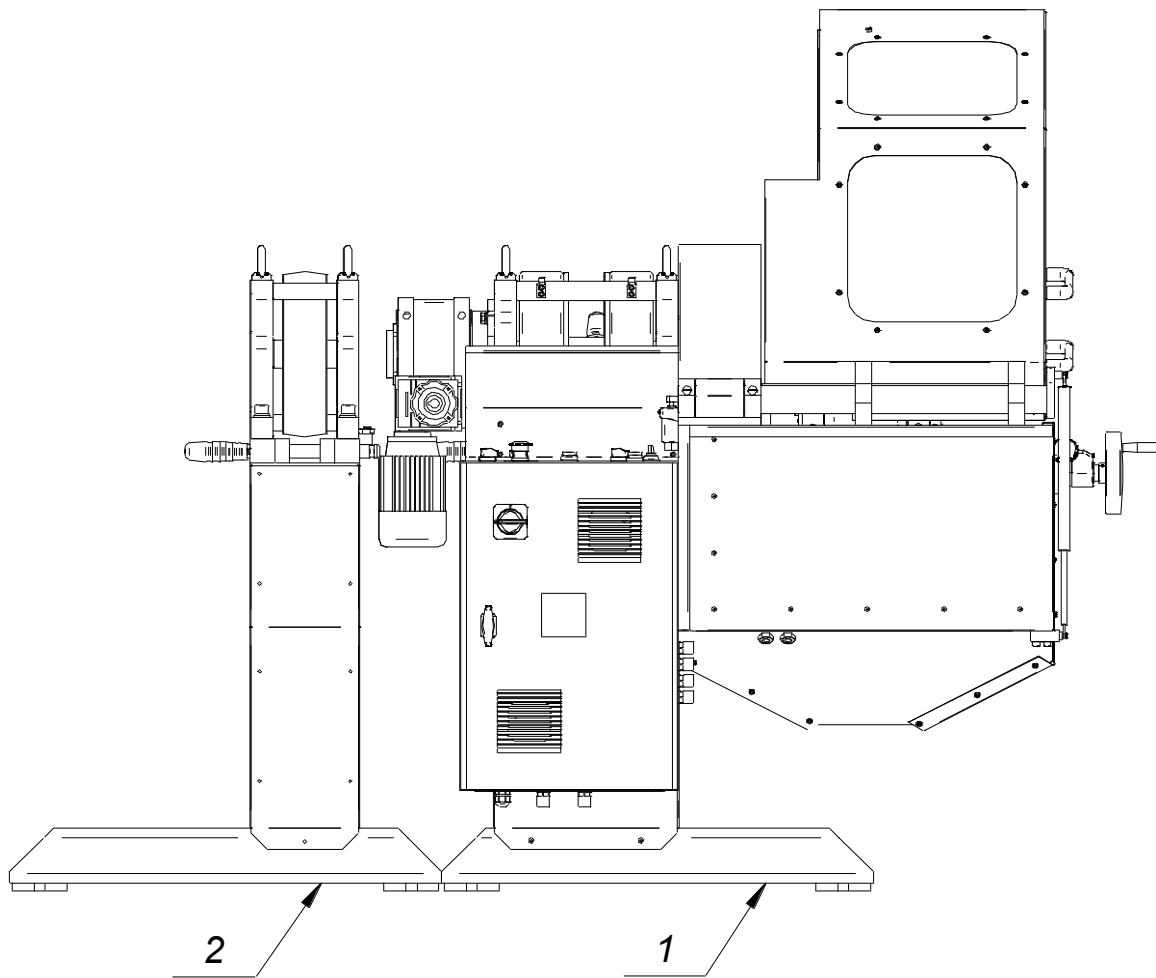


Figure 2. Machine design: 1 – active support, 2 – passive support

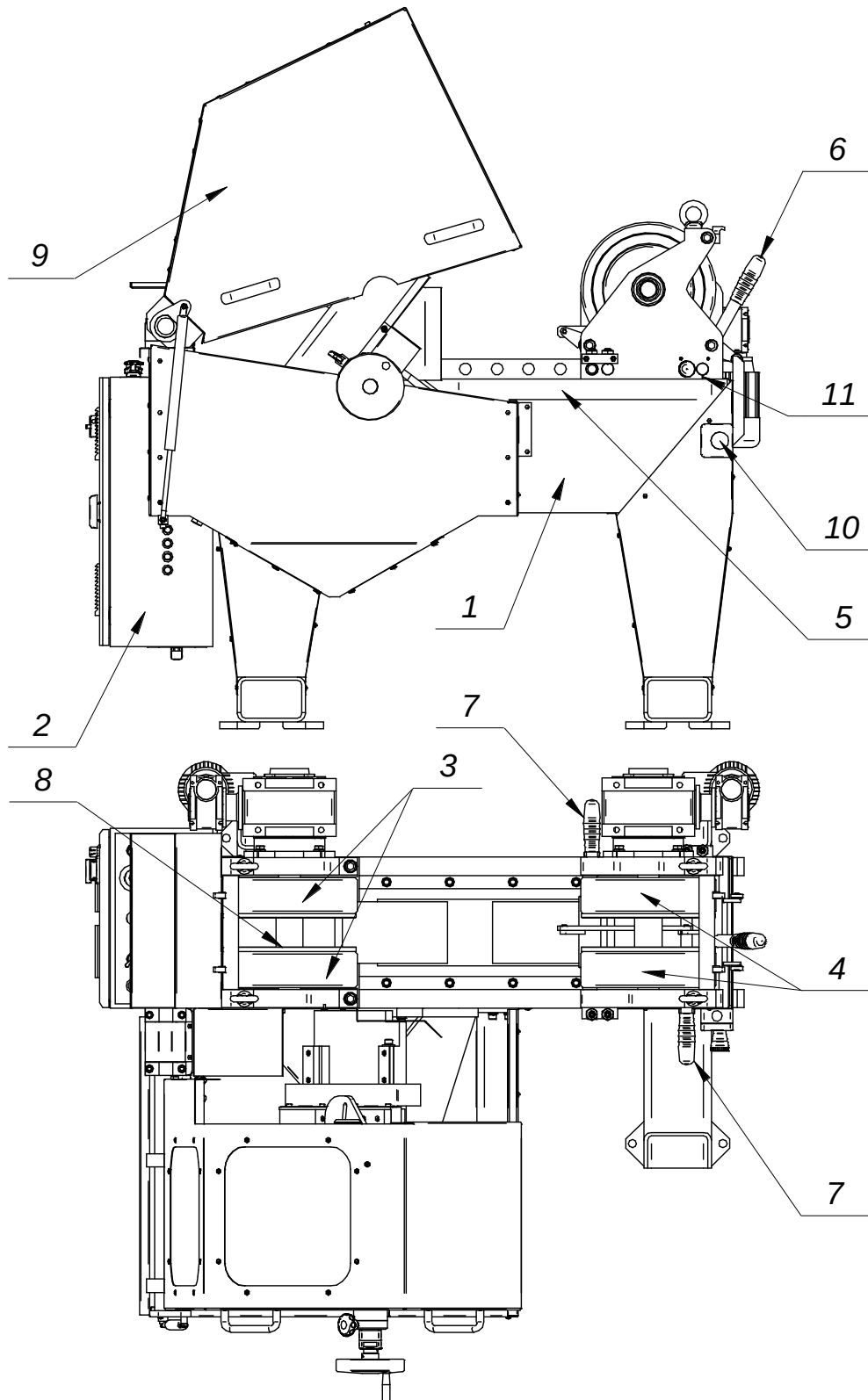


Figure 3. Active support design: 1 – body, 2 – control cabinet, 3 – fixed driving roller, 4 – movable driving roller, 5 – scale, 6 – rollers travel lever, 7 – movable roller pivot, 8 – chain guide, 9 – milling unit cover, 10 – emergency button, 11 – line indicating pipe position



Figure 4. Control panel design: 1 – main switch, 2 – control button, 3 – operating mode lever, 4 – emergency button, 5 – work area light, 6 – spindle start/stop button, 7 – lamp indicating spindle overload, 8 – rotator start/stop button, 9 – rotation direction switch, 10 – rotator speed adjusting knob

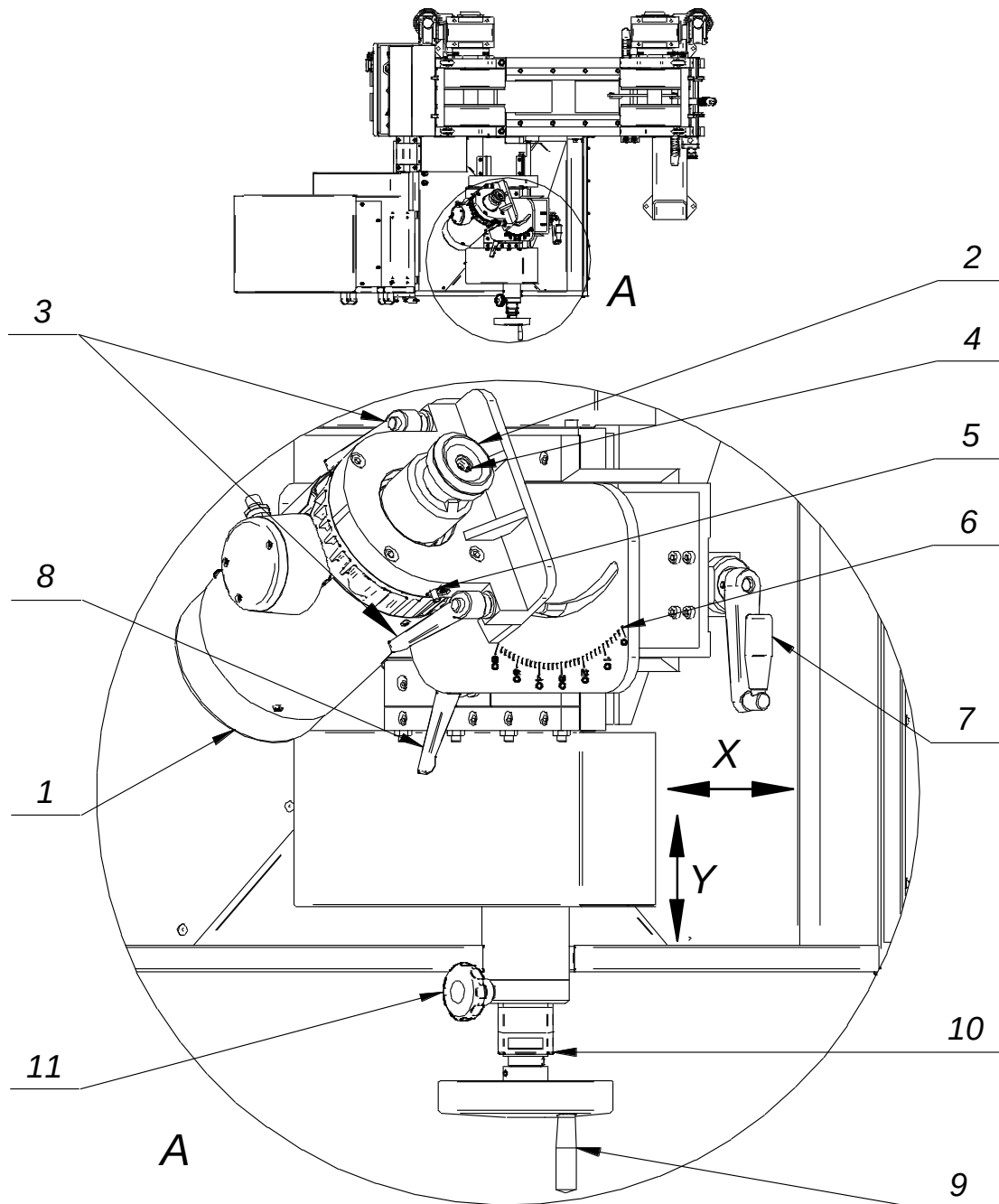


Figure 5. Milling unit design: 1 – motor, 2 – milling head, 3 – milling unit angle lock lever, 4 – bolt securing milling head, 5 – spindle rotation lock button, 6 – angular pitch, 7 – X-axis milling unit travel crank, 8 – X-axis milling unit travel lock lever, 9 – Y-axis milling unit travel crank, 10 – Y-axis travel meter, 11 – Y-axis milling unit travel lock knob

1.4. Equipment included

PBM-1000 stationary pipe beveling machine is supplied with complete standard equipment. The included equipment consists of:

- stationary pipe beveling machine
 - active support (with plastic rollers) – 1 unit
 - passive support (with steel rollers) – 1 unit
- pipe clamp – 1 unit
- guiding chain – 1 unit
- size 10 Allen key – 1 unit
- size 8 Allen key – 1 unit
- size 5 Allen key – 1 unit
- size 16 flat key – 1 unit
- torx T15P screwdriver – 1 unit
- Operator's Manual – 1 unit

The machine (active and passive support) contains holes for transportation by forklifts (Figure 6, Item 1) or cranes (Figure 6, Item 2).

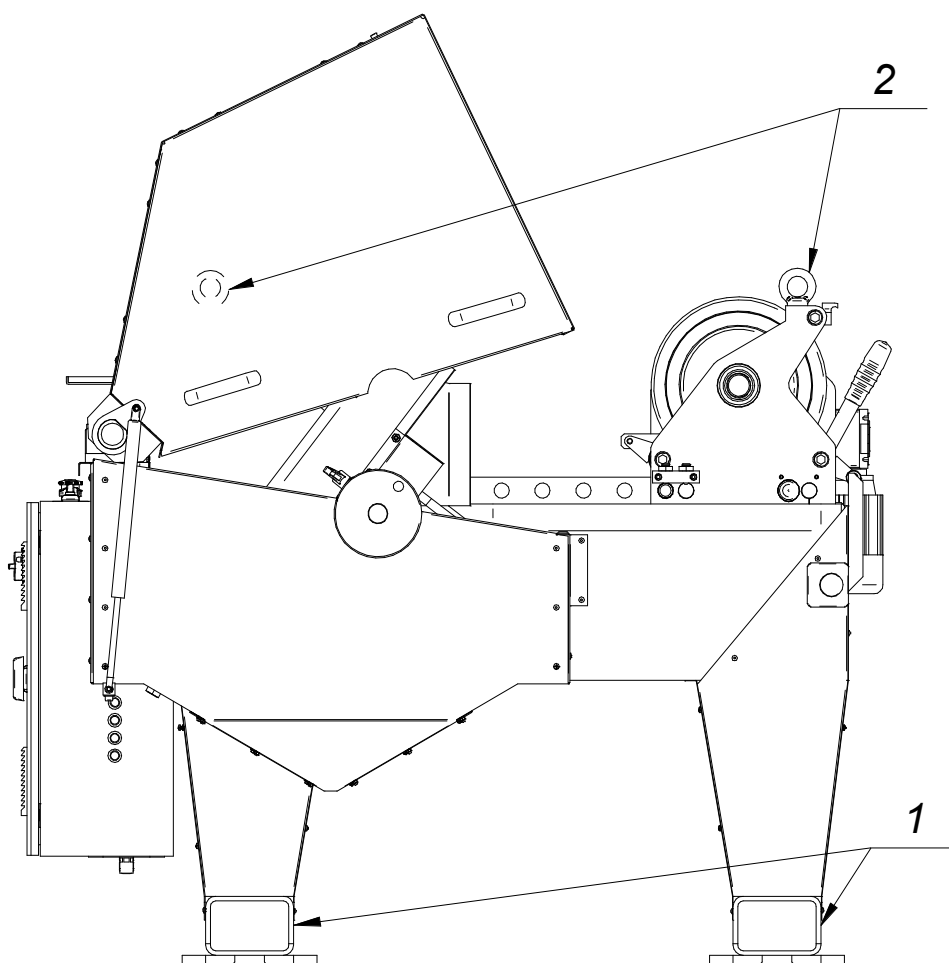
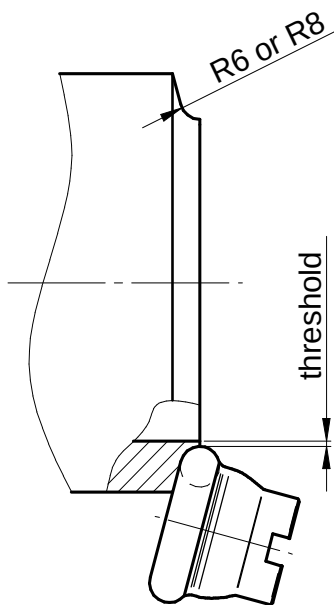


Figure 6. Transportation holes (active support): 1 – for forklift, 2 – for crane
 Operator's Manual – PBM-1000 Stationary Pipe Beveling Machine

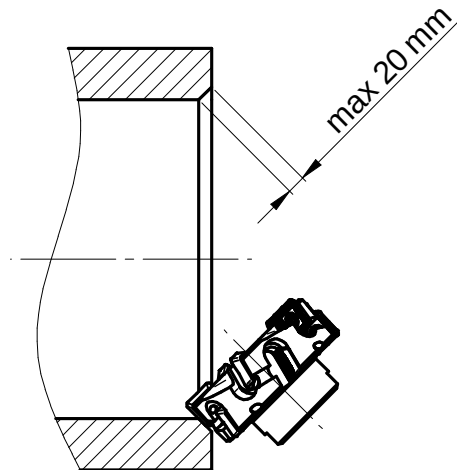
1.5. Optional equipment

You can optionally order milling heads for performing J-bevels with the radius of 6 mm (0.24") or 8 mm (0.31") and for beveling internal edges in 0–60° range with maximum bevel width of 20 mm (0.79"). Additionally available steel rollers provide 5000 kg (11 000 lbs) carrying capacity per support. The optional equipment consists of:

- milling head for R6 round cutting inserts
- milling head for R8 round cutting inserts
- milling head for beveling internal edges
- steel rollers



J-beveling



internal beveling in 0–60°

2. SAFETY PRECAUTIONS

1. Before start, read Operator's Manual and complete proper occupational safety and health training.
2. Machine must be used only in applications stated in Operator's Manual.
3. Machine must be complete and all parts must be genuine.
4. Power supply specifications must conform to those stated on rating plate.
5. Transport and operate machine only in vertical position.
6. Install machine on flat foundations with maximum 5 mm (2") deviation from level over length. Improperly prepared surface may lead to damage, incorrect machine operation and may cause injuries to people in vicinity.
7. Connect machine to installation equipped with safety circuit (grounding).
8. Never yank power cord to disconnect plug from socket. It may cause power cord to break and result in electric shock.
9. Bystanders can not be present in immediate vicinity of machine.
10. Before start, check condition of machine and electrical installation, including power cord, plug, control panel components, and milling tools.
11. Before every use, inspect 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 machine operation.
12. Keep machine dry. Exposing it to rain snow or moisture is prohibited.
13. Ensure proper lighting in your worksite.
14. Never use machine in vicinity of combustible fluids or gases or in explosive environments.
15. Always use safety goggles, hearing protection, gloves and protective clothing during operation. Do not wear loose clothing.
16. Never use blunt or damaged tools.
17. Do not touch spindle or machined pipe during motion. Do not put hands into work area of driving rollers.
18. Mount cutting inserts and milling head securely. Remove keys and tools used for replacement.
19. If cutting edge of insert is worn out, rotate insert in socket by 90° or, if all edges are worn out, replace with new insert specified in Operator's Manual.

20. Maintain machine and tools with care. Cover steel parts with thin grease layer to protect them against rust when not in use for a longer period.
21. After every use, remove metal chips from machine, particularly from milling head. Never remove chips with bare hands.
22. Use only parts recommended by manufacturer and specified in Operator's Manual.
23. Perform all maintenance work only with power cord unplugged from power socket.
24. Perform all repairs only in service center appointed by seller.
25. If machine is wet or has other damage that could affect technical state of machine, stop operation and immediately send machine to service center for inspection.

**WARNING!**

Safety rules must be closely observed.

3. STARTUP AND OPERATION



WARNING! Read safety precautions before starting.

3.1. Supports arrangement and machine connection

Place machine on foundations that ensure balance and can transmit forces exerted by machine and working material. Use active support for machining pipes in 400–830 mm (15.7–32.7”) length range. For pipes longer than 830 mm (32.7”) use also passive support, positioning it in relation to active support in a manner that prevents pipe from moving during rotation. This can be done either by ensuring equality of diagonals formed between supports or by using 55x15 drawing flat bar (Figure 7). Every support contains holes for fastening to foundations. We recommend to connect the machine into mains using 3G2.5 mm² (10 gauge) power cord.

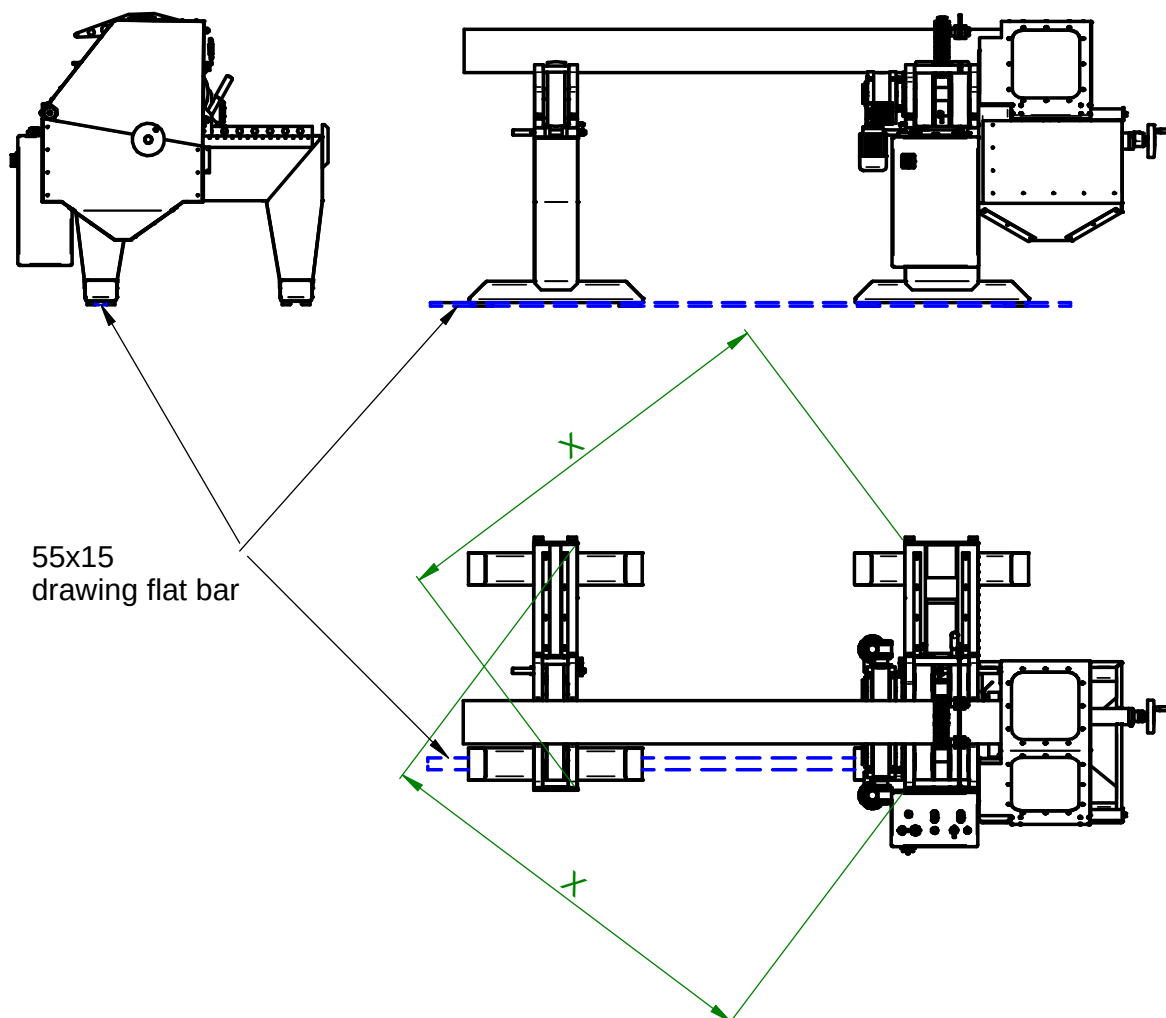


Figure 7. Supports arrangement for beveling pipes longer than 830 mm (32.7”)

3.2. Operating modes

The machine can operate in rotator or beveler mode, set by lever (Figure 4, Item 3). Rotator mode starts rollers with green button (Figure 4, Item 8) and to adjust rotational speed using knob (Figure 4, Item 10). Spindle rotation is inactive in this mode.

Beveler mode enables, after closing cover (Figure 3, Item 9), to start the spindle using green button (Figure 4, Item 6) and then to start rollers (Figure 4, Item 8). If the spindle gets overloaded during operation, red light will illuminate (Figure 4, Item 7). In such case, immediately decrease either milling depth or rotational speed of rollers. To decrease milling head penetration in the working material, retract Y-axis milling unit using crank (Figure 5, Item 9). Further spindle load increasing will trigger safety circuit and shut down the rotator (spindle rotation will not stop). In such case, before you start rollers again, retract Y-axis milling unit and press rotator red button (Figure 4, Item 8). This will turn off the red lamp and allow rotator to start with green button (Figure 4, Item 8). If the cover becomes open during beveling, spindle and rotator will immediately stop operation.

3.3. Placing pipe

Before you place the pipe on the machine, set movable driving rollers (Figure 3, Item 4) to match the red line (Figure 3, Item 11) with machined pipe diameter on the scale (Figure 3, Item 5). For this purpose, remove pivots (Figure 3, Item 7), maximally lower rollers travel lever (Figure 3, Item 6) and use it to manually move rollers forward or backward. Once setting in proper position, raise lever and reinsert pivots. Proceed as described for passive support as well (Figure 2, Item 2).



Before you place the pipe, raise cover (Figure 3, Item 9) and use crank (Figure 5, Item 7) to lower X-axis milling unit to prevent its damage caused by collision with the pipe.

Place the pipe on the rotator to maintain a 160–260 mm (6–10”) distance between pipe face and side surface of the rollers on the active support, as in Figure 9. Because position of machining differs from position of the support, any pipe shape tolerance deviation will cause inconsistency in the bevel or threshold. To diminish these errors, place the pipe as close to the rollers as permitted (160 mm, 6”). Additionally, you may need to use clamp, guiding chain, or both.

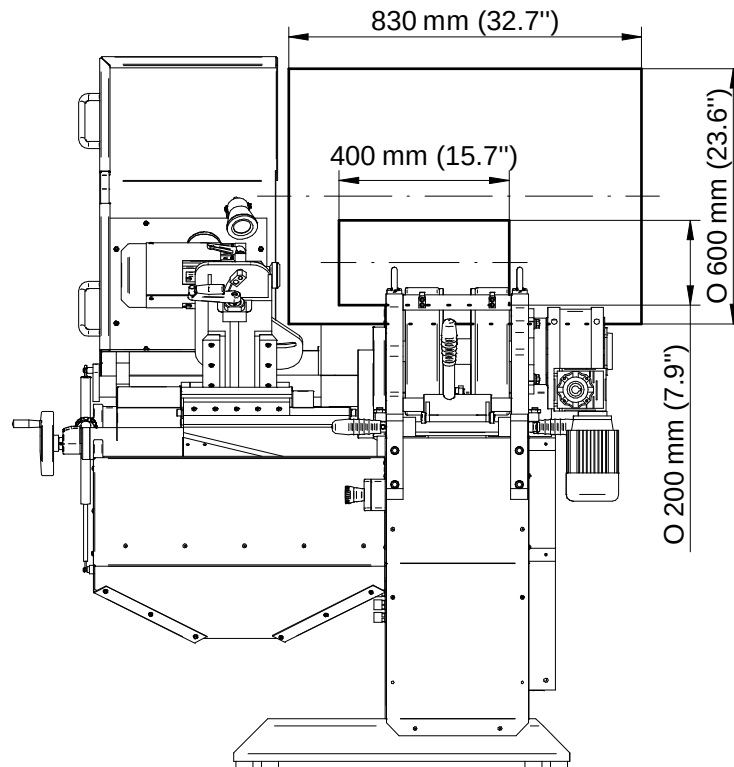


Figure 8. Placing pipe with the length of 400–830 mm and maximum diameter of $\varnothing 600$ mm

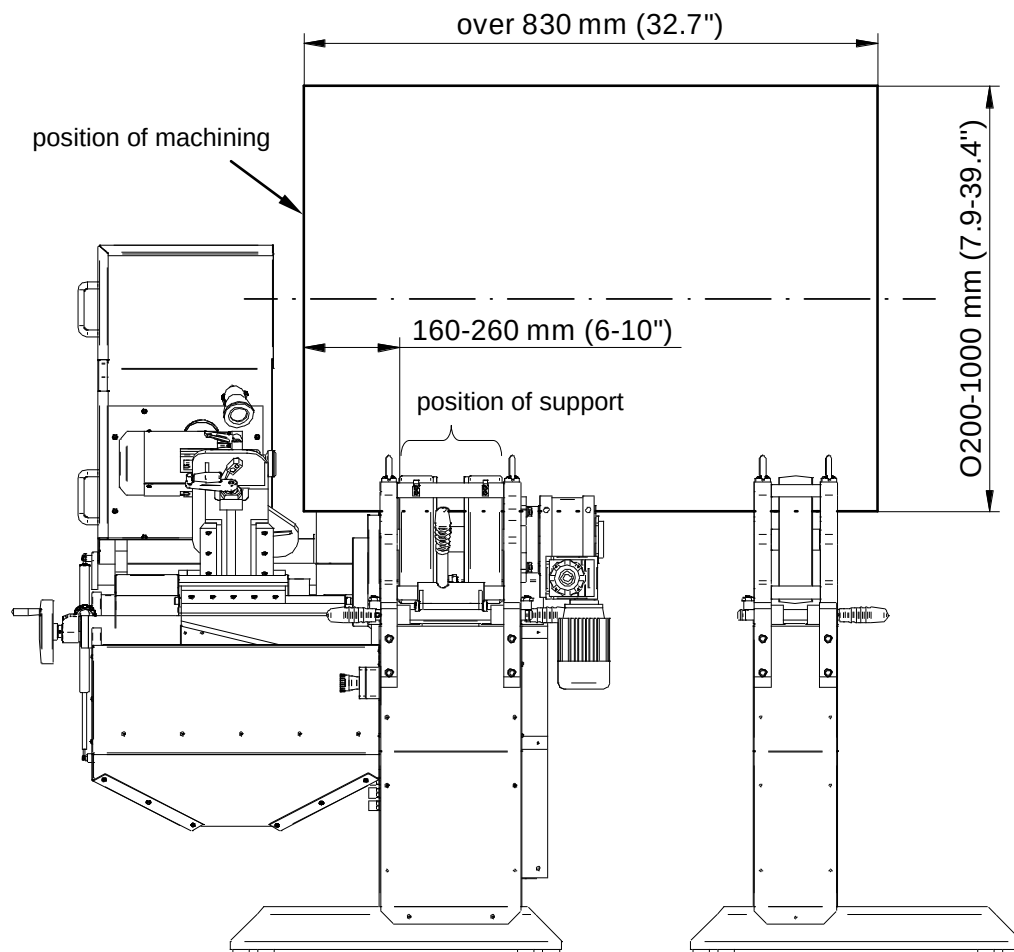


Figure 9. Placing pipe longer than 830 mm with maximum diameter of $\varnothing 1000$ mm

3.3.1. Using clamp

Use clamp (Figure 10) if pipe is short and light or not balanced during machining. For this purpose, place the pipe on the machine and mount clamp, catching it by hooks (Figure 11, Item 2) at both sides of the machine. Then, slightly tighten the nut (Figure 10, Item 1) using size 16 flat key.

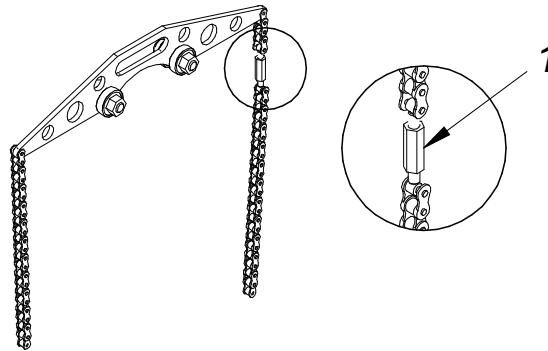


Figure 10. Clamp design: 1 – nut

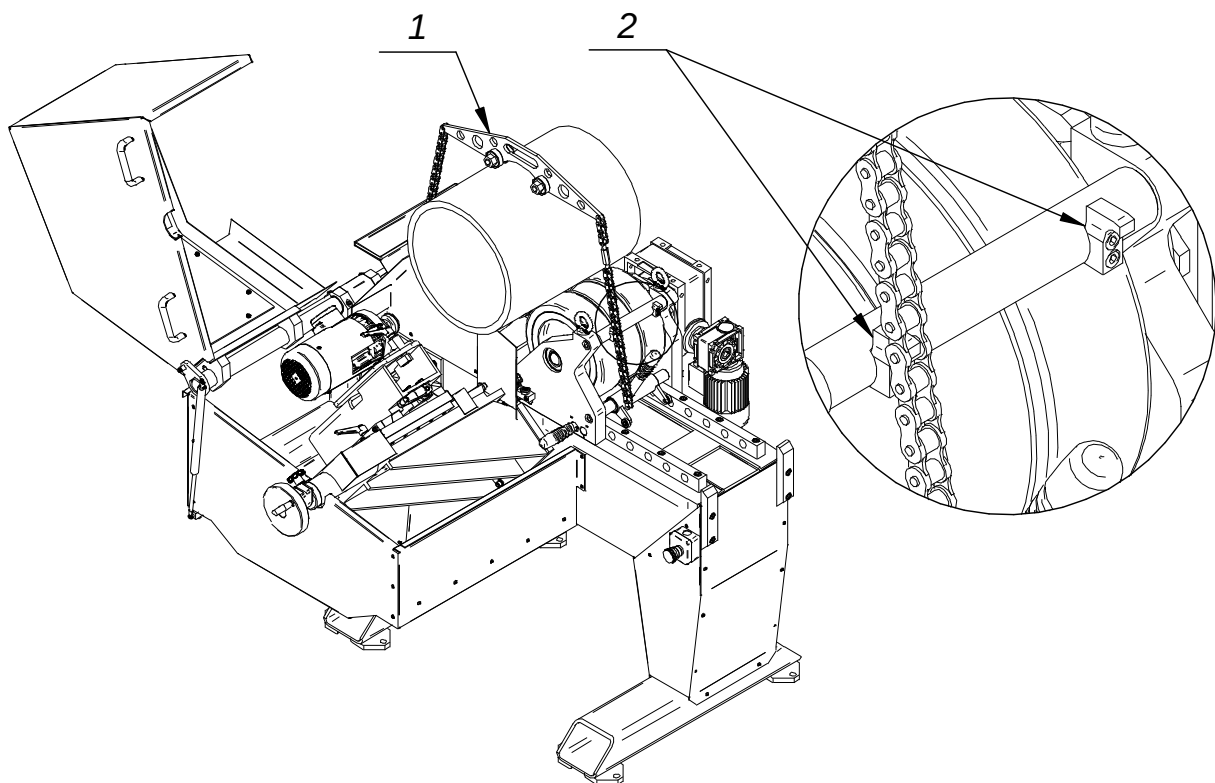


Figure 11. Using clamp: 1 – clamp, 2 – hook

3.3.2. Using guiding chain

If pipe moves along its axis during milling, use guiding chain to provide balance. To create the chain for the pipe of specific external diameter, use basic “B” segment (Figure 12) and 3-, 6-, 9-, 18-, 36-, 72-link additional segments (Figure 13). Their

proper interconnection sequence to form a single chain is shown in Table 1 (columns from left to right), while basic “B” segment is necessary in all cases. Because the “3” segment can not be last, for pipes in 223–251 mm (8.78–9.88”) diameter range place it within “B” segment after dismounting links (Figure 12, Item 4) from connector (Figure 12, Item 3).

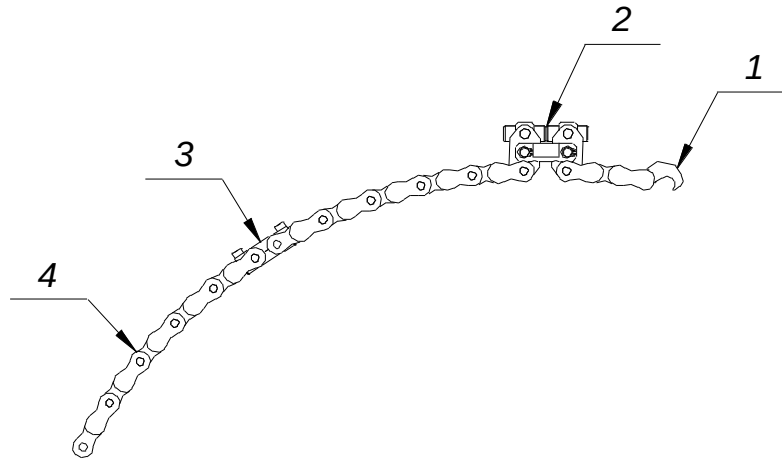


Figure 12. Basic segment design: 1 – catch, 2 – tightener, 3 – connector, 4 – links

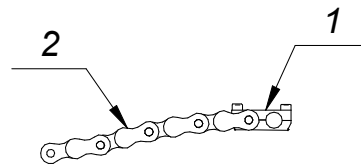


Figure 13. Additional segments design: 1 – connector, 2 – links

3.3.3. Guiding chain usage example

To create guiding chain for pipe with external diameter of 390 mm (15.35”), connect basic “B” segment to additional “18” and “3” segments using connectors (Figure 13, Item 1) with the help of size 5 Allen key. Proper interconnection sequence should be as follows: “B”, “3”, “18” (Figure 14).

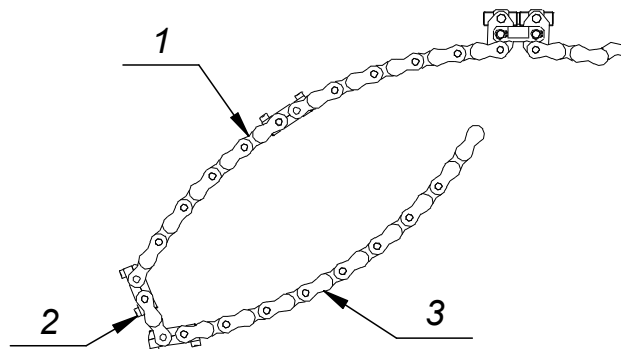


Figure 14. Guiding chain design for pipe with external diameter of 390 mm (15.35”): 1 – basic segment, 2 – 3-link segment, 3 – 18-link segment

Basic segment	Additional segments				Pipe external diameter range [mm]	Pipe external diameter range [in]
B	–	–	–	–	199–227	7.83–8.94
B	3	–	–	–	223–251	8.78–9.88
B	6	–	–	–	248–275	9.76–10.83
B	9	–	–	–	272–300	10.71–11.81
B	3	9	–	–	296–324	11.65–12.76
B	6	9	–	–	320–348	12.60–13.70
B	18	–	–	–	345–372	13.58–14.65
B	3	18	–	–	369–397	14.53–15.63
B	6	18	–	–	393–421	15.47–16.57
B	9	18	–	–	417–445	16.42–17.52
B	3	9	18	–	442–469	17.40–18.46
B	6	9	18	–	466–494	18.35–19.45
B	36	–	–	–	490–518	19.29–20.39
B	3	36	–	–	514–542	20.24–21.34
B	6	36	–	–	539–566	21.22–22.28
B	9	36	–	–	563–591	22.17–23.27
B	3	9	36	–	587–615	23.11–24.21
B	6	9	36	–	611–639	24.06–25.16
B	18	36	–	–	636–663	25.04–26.10
B	3	18	36	–	660–688	25.98–27.09
B	6	18	36	–	684–712	26.93–28.03
B	9	18	36	–	708–736	27.87–28.98
B	3	9	18	36	733–760	28.86–29.92
B	6	9	18	36	757–785	29.80–30.91
B	72	–	–	–	781–809	30.75–31.85
B	3	72	–	–	805–833	31.69–32.80
B	6	72	–	–	830–858	32.68–33.78
B	9	72	–	–	854–882	33.62–34.72
B	3	9	72	–	878–906	34.57–35.67
B	6	9	72	–	903–930	35.55–36.61
B	18	72	–	–	927–955	36.50–37.60
B	3	18	72	–	951–979	37.44–38.54
B	6	18	72	–	975–1003	38.39–39.49
B	9	18	72	–	1000–1027	39.37–40.43

Table 1. Proper segments interconnecting sequence for specific pipe diameters

Before placing pipe on the machine, place guiding chain between driving rollers (Figure 3, Item 4). Then, place the pipe and hook up the chain on pipe perimeter as shown in Figure 15.

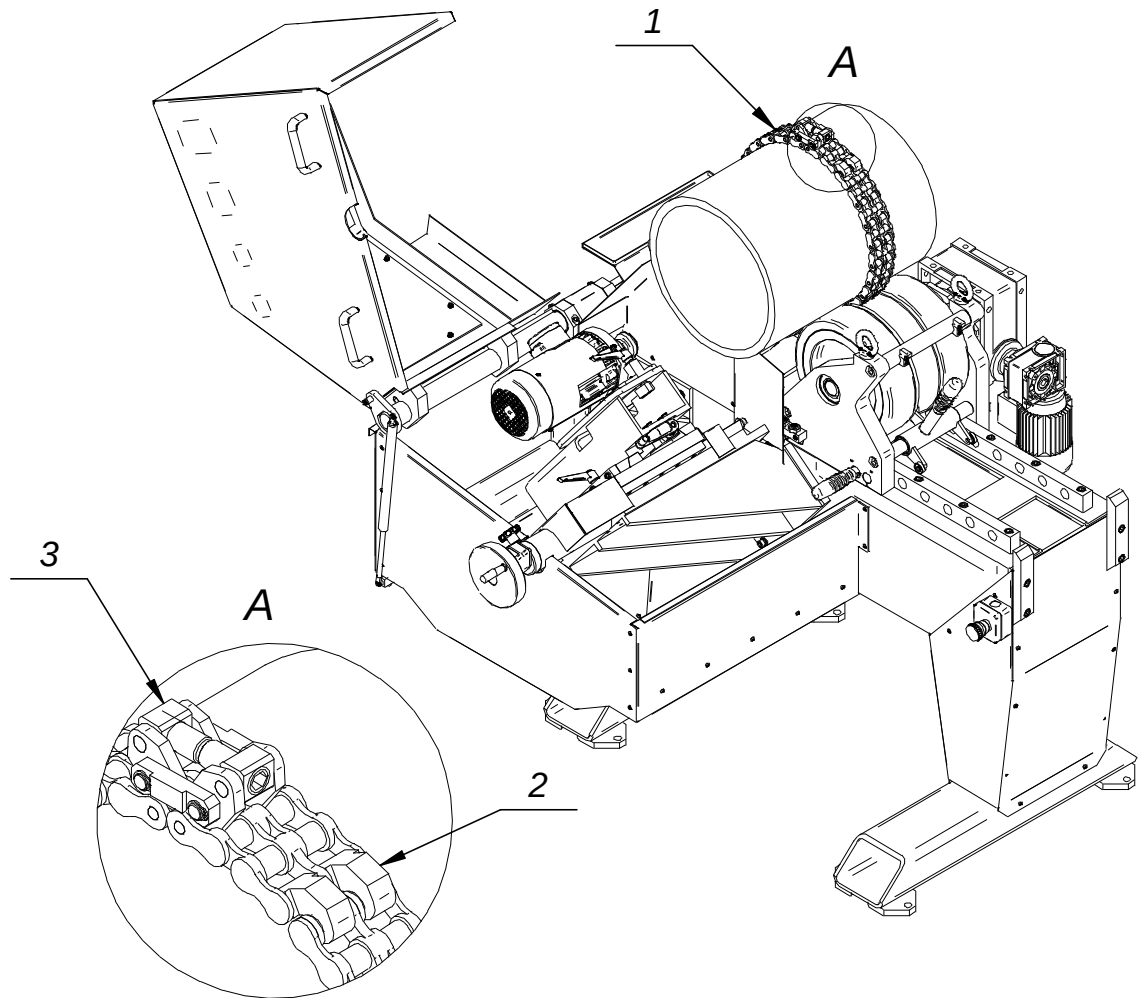


Figure 15. Installing guiding chain: 1 – guiding chain, 2 – catch, 3 – tightener

Hook the catch on the last link, second or third from the end, and put free links upward (Figure 15a). Tighten guiding chain slightly to maintain minimum clearance, using tightener (Figure 15, Item 3) with the help of size 10 Allen key. Then, turn on the power with main switch (Figure 4, Item 1) and press control button (Figure 4, Item 2), what will be indicated by illuminating lamp after about 5 seconds. Set lever (Figure 4, Item 3) to “rotator” position, start rotation using green button (Figure 4, Item 8) and perform one complete rotation to ensure good alignment of the guiding chain. Then, stop rotator with red button (Figure 4, Item 8) and tighten guiding chain completely.

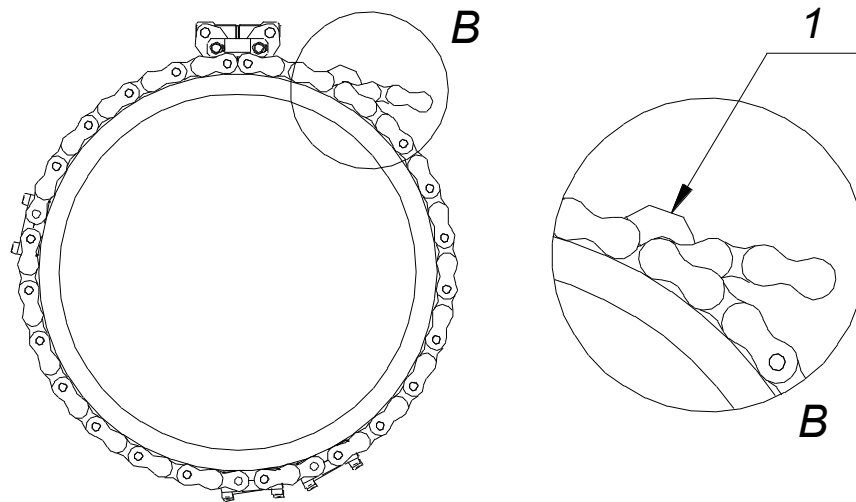


Figure 15a. Chain hooked up on the pipe: 1 – clamp

3.4. Spindle setup and machine startup

To perform a bevel, open milling unit cover (Figure 3, Item 9). Then, after loosening levers (Figure 5, Item 3), set milling unit to required angle on the pitch (Figure 5, Item 6) and lock its rotation with the button (Figure 5, Item 5). Unlock X-axis milling unit travel lever (Figure 5, Item 8), move milling unit to proper height using crank (Figure 5, Item 7) and lock again (Figure 5, Item 8). Set crank in horizontal position and fold its handle to prevent collision with the cover. Then, close the cover and move it two inches away from pipe face.

Use switch (Figure 4, Item 9) to choose between left (recommended) and right rotator direction and set required rotational speed with knob (Figure 4, Item 10). Then, use green button to start spindle (Figure 4, Item 6) and rotator (Figure 4, Item 8). Unlock Y-axis milling unit travel using knob (Figure 5, Item 11). Rotating crank (Figure 5, Item 9), bring the tool close to working material, then start milling process and lock Y-axis travel again. The bevel will be finished after one complete rotation. To increase the width of achieved bevel, set higher Y-axis milling unit penetration in the working material. In case of emergency, press one of the emergency buttons: either located on the machine body (Figure 3, Item 10) or on the control panel (Figure 4, Item 4), what will shut down the power.

3.5. Replacing cutting inserts

PBM-1000 Stationary Pipe Beveling Machine is equipped with the milling head containing 7 cutting inserts made of carbide that wear during operation. Inserts can be replaced or rotated. To replace or rotate the insert, unplug power cord from power socket and using supplied torx T15P screwdriver unscrew bolt (Figure 16, Item 1), then remove insert (Figure 16, Item 2) and clean the socket. Place rotated insert again or replace with new one if all four edges are worn out. All inserts should be rotated and/or replaced at the same time.

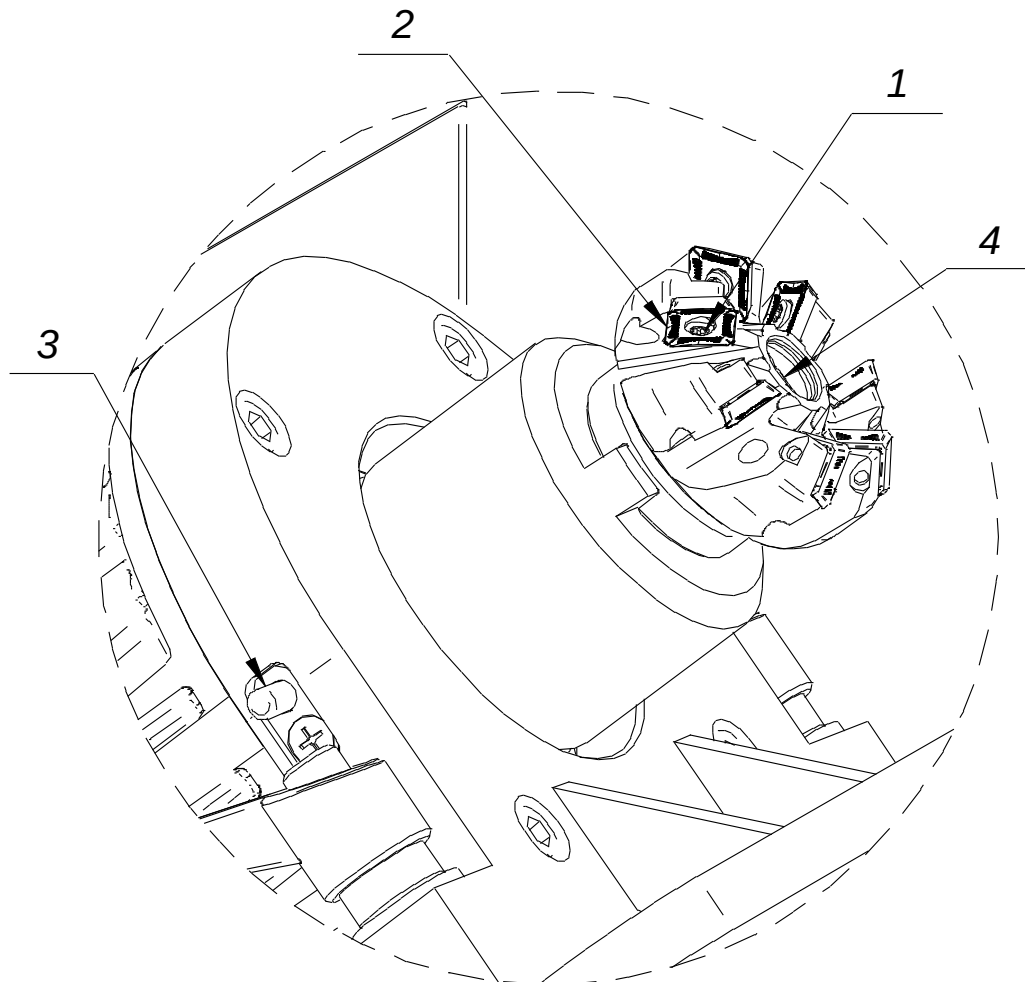
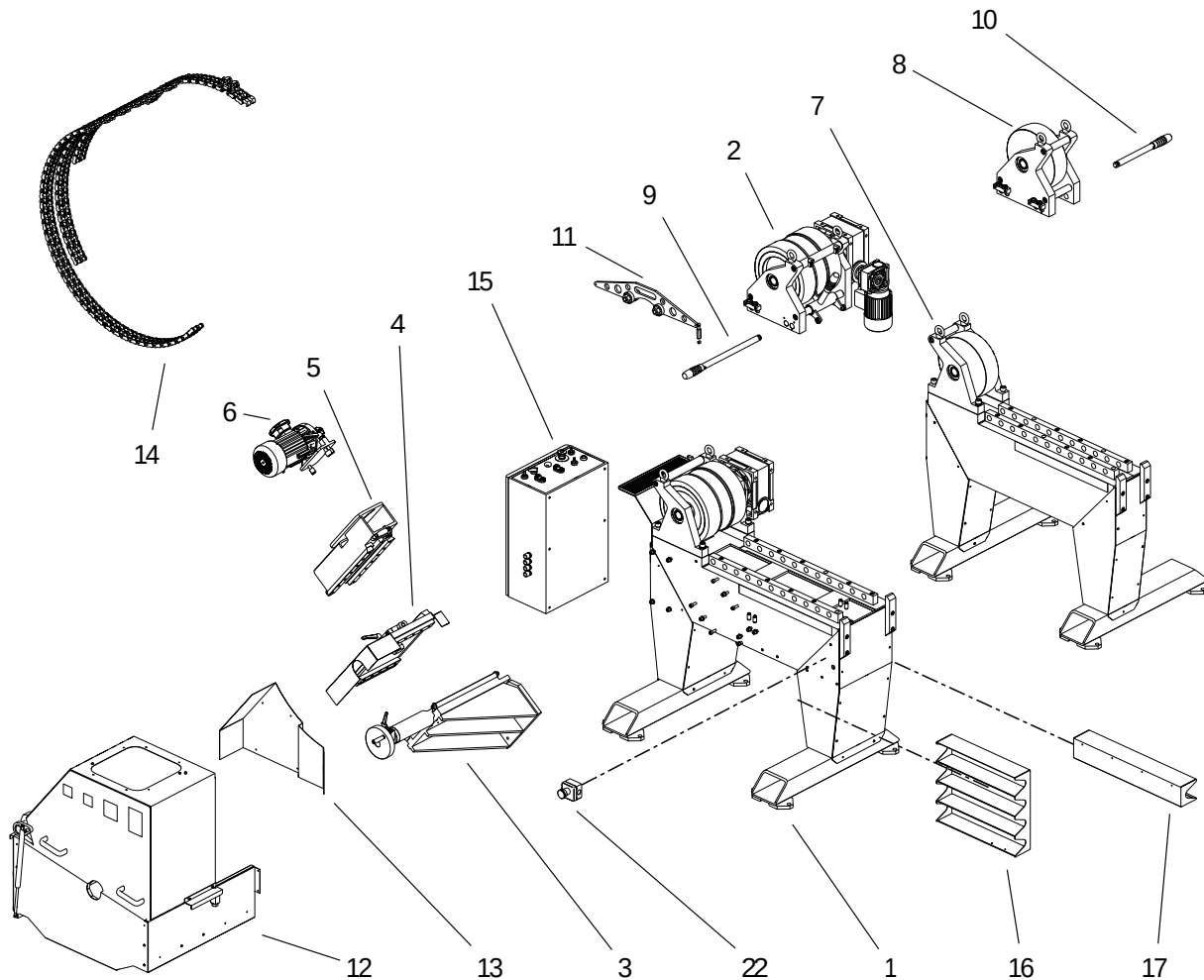


Figure 16. Milling tool: 1 – bolt securing cutting insert, 2 – cutting insert, 3 – spindle rotation lock button, 4 – bolt securing milling head

3.6. Replacing milling head

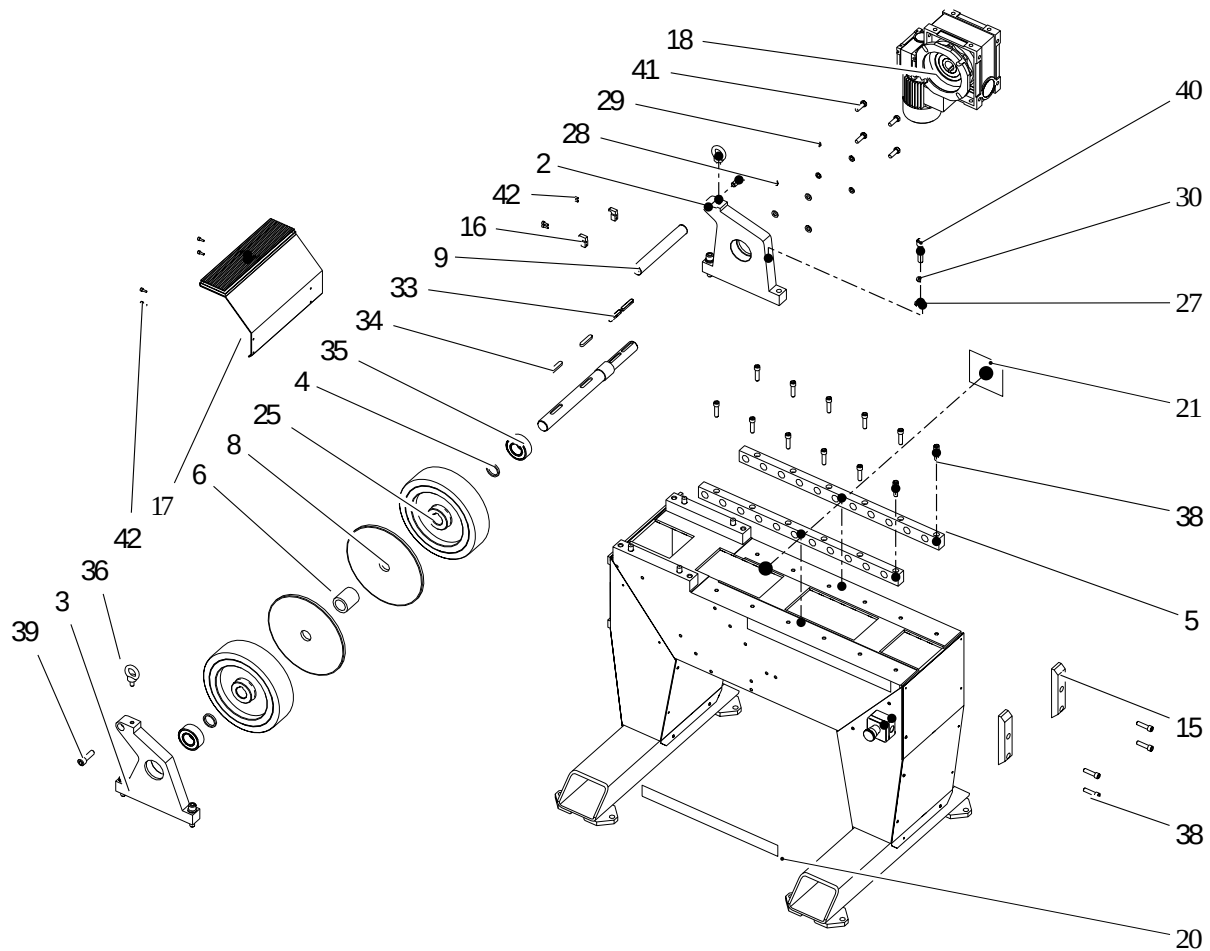
To replace milling head, unplug power cord from power socket. Then, lock spindle rotation with button (Figure 16, Item 3), unscrew bolt securing milling head (Figure 16, Item 4) using Allen key of size dependent on the type of mounted head.

4. EXPLODED PARTS DRAWINGS AND PARTS LISTS



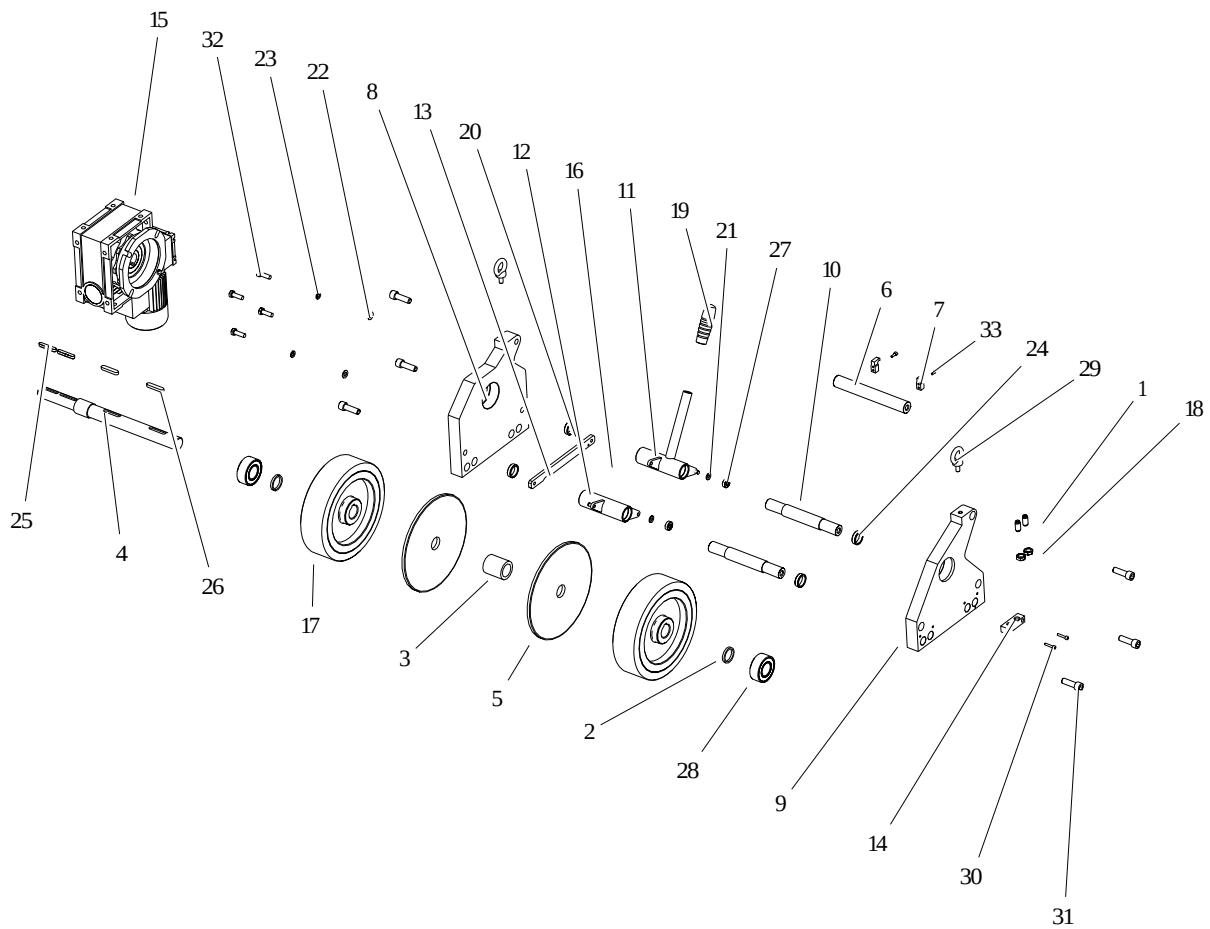
PBM-1000 STATIONARY PIPE BEVELLING MACHINE		UKS-0436-24-20-00-0		
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	ACTIVE SUPPORT	ZSP-0436-01-00-00-0	3100	1
2	MOVABLE ROLLERS UNIT	ZSP-0436-02-00-00-0	3097	1
3	SIDE TABLE COMPLETE	STL-0436-03-00-00-0	3096	1
4	SIDE TABLE COMPLETE	STL-0436-04-00-00-0	3104	1
5	MILLING UNIT BRACKET COMPLETE	WSP-0436-05-00-00-0	3095	1
6	MILLING UNIT	ZSP-0436-06-00-00-0	3094	1
7	PASSIVE SUPPORT	ZSP-0436-08-00-00-0	3090	1
8	MOVABLE ROLLERS UNIT OF PASSIVE SUPPORT	ZSP-0436-09-00-00-0	3089	1
9	LONG PIN COMPLETE	SWR-0436-10-00-00-0		2

PBM-1000 STATIONARY PIPE BEVELLING MACHINE		UKS-0436-24-20-00-0		
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
10	LONG PIN COMPLETE	SWR-0436-11-00-00-0		2
11	TOP CLAMP COMPLETE	DCS-0436-12-00-00-0	3088	1
12	MILLING UNIT COVER FULL SET	KPL-0436-15-00-00-0	3093	1
13	COVER	OSL-0436-16-00-00-0	3076	1
14	CHAIN COMPLETE	LNC-0436-17-00-00-0		1
15	CONTROL CABINET	SZF-0436-18-00-00-0		1
16	CHAIN CONTAIER	PJM-0436-21-01-00-0		1
17	CLAMP CONTAIER	PJM-0436-22-00-00-0	3038	1
18	ROUND WASHER 6.4	PDK-000021		4
19	ROUND WASHER 10,5	PDK-000026		14
20	SPRING WASHER 10.2	PDK-000052		14
21	SOCKET BUTTON HEAD CAP SCREW M5x10	WKR-000096		18
22	EMERGENCY BUTTON	PRC-000014		1
23	SPRING WASHER 6,1	PDK-000046		4
24	HEX. SOCKET BOLT M 6 x10	SRB-000101		4
25	HEX. SOCKET BOLT M10x35	SRB-000048		14



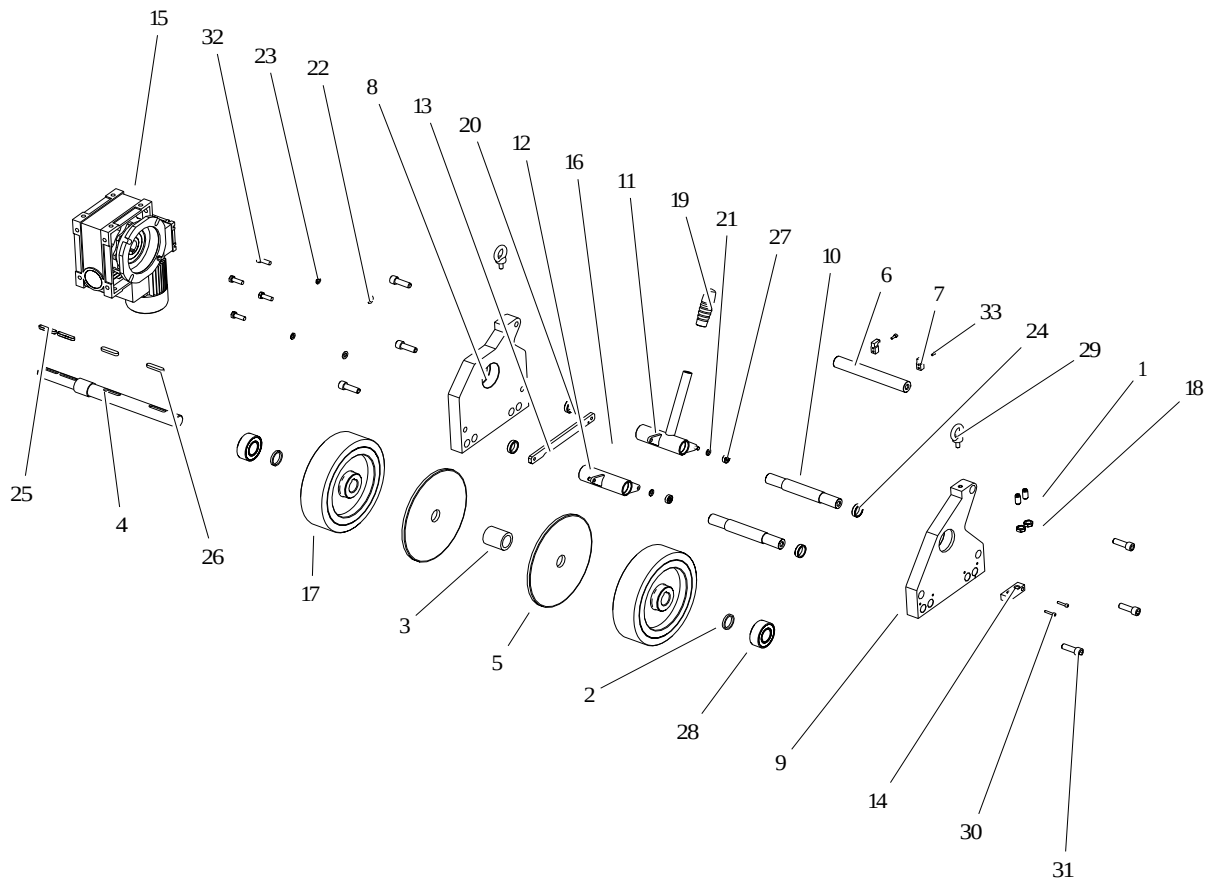
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	BEARING MOUNTING I	OPR-0436-01-02-00-0	3024	1
2	BEARING MOUNTING II	OPR-0436-01-03-00-0	3025	1
3	WHEEL SPACER	DYS-0436-01-04-00-0		2
4	GUIDE	PRW-0436-01-05-00-0		2
5	SPACER SLEEVE	TLJ-0436-01-06-00-0	3027	1
6	DRIVE SHAFT	WLK-0436-01-07-00-0		1
7	CHAIN GUIDE	PRW-0436-01-08-00-0		2
8	CONNECTOR	LCZ-0436-01-09-00-0	3026	1
9	BUMPER	ZDR-0436-01-15-00-0	3032	2
10	HOOK	ZCZ-0436-01-16-00-0		2
11	CONSOLE COVER COMPLETE	OSL-0436-01-17-00-0	3036	1
12	GEAR-MOTOR	MTR-0436-01-18-00-0		1
13	PIPE DIAMETER RANGE LABEL	NKL-0436-20-00-01-0		1
14	RATING PLATE	TBL-0436-20-01-03-1		1
15	PIN 16n6x40	KLK-000098		4

ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
16	WHEEL WITH TIRE	KOL-000077		2
17	HEX. NUT M12	NKR-000003		4
18	ROUND WASHER 17	PDK-000180		4
19	ROUND WASHER 13	PDK-000118		20
20	SPRING WASHER 12.2	PDK-000053		24
21	SPRING WASHER 16.2	PDK-000154		4
22	SELF-TAPPING SCREW 4.8x9.5	WKR-000365		18
23	SOCKET BUTTON HEAD CAP SCREW M5x8	WKR-000289		16
24	PRISMATIC KEY 10x8x60	WPS-000073		2
25	PRISMATIC KEY 12x8x60	WPS-000032		2
26	DOUBLE-ROW ANGULAR BALL BEARING 3208 2Z	LOZ-000122		2
27	EYE SCREW M12	SRB-000168		2
28	HEX CAP SCREW FULLY THREADED M12x35	SRB-000308		16
29	HEX. SOCKET BOLT M12 x 45	SRB-000054		16
30	HEX. SOCKET BOLT M16x50	SRB-000316		2
31	HEX. SOCKET BOLT M16x70	SRB-000317		4
32	HEX CAP SCREW FULLY THREADED M12x35	SRB-000195		4
33	HEX. SOCKET BOLT M6X16	SRB-000106		12

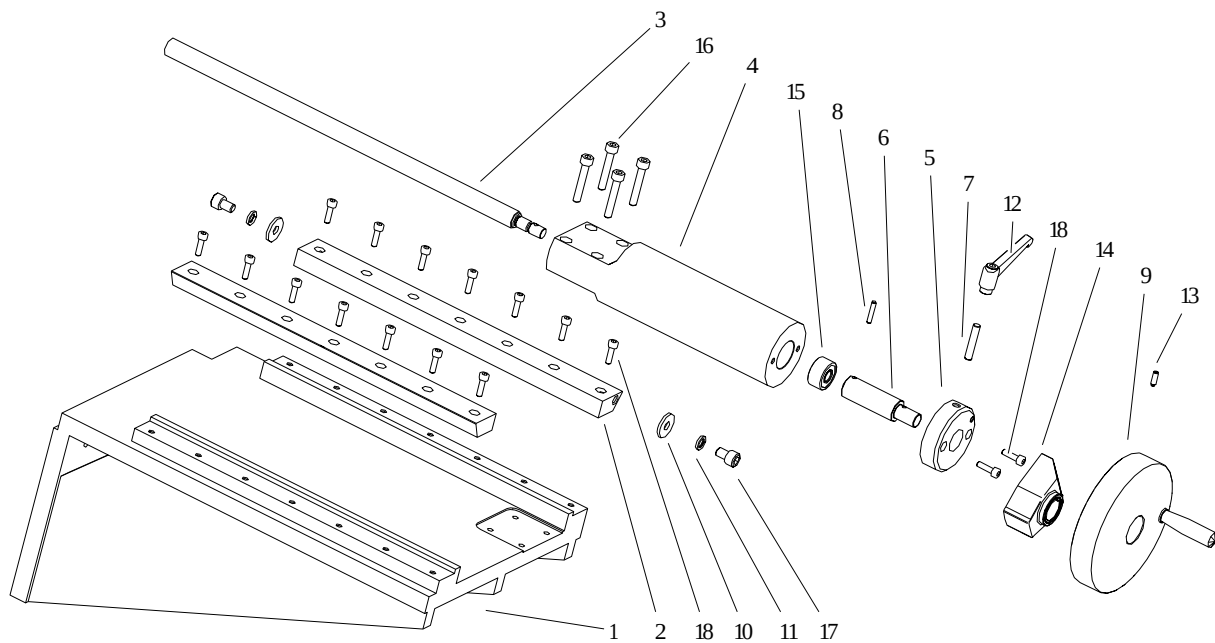


ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	BALL CATCH COMPLETE	ZTR-0167-18-00-00-0		4
2	WHEEL SPACER	DYS-0436-01-04-00-0		2
3	SPACER SLEEVE	TLJ-0436-01-06-00-0	3027	1
4	DRIVE SHAFT	WLK-0436-01-07-00-0		1
5	CHAIN GUIDE	PRW-0436-01-08-00-0		2
6	CONNECTOR	LCZ-0436-01-09-00-0	3026	1
7	HOOK	ZCZ-0436-01-16-00-0		2
8	BEARING MOUNTING I	OPR-0436-02-01-00-0	3043	1
9	BEARING MOUNTING II	OPR-0436-02-02-00-0	3044	1
10	CONNECTOR	LCZ-0436-02-03-00-0		2
11	LIFTING UNIT BODY	KRP-0436-02-04-00-0	3042	1
12	LIFTING UNIT BODY II	KRP-0436-02-05-00-0	3041	1
13	STRING	CGN-0436-02-06-00-0	3040	1
14	CATCH MOUNTING	OPR-0436-02-07-00-0	3039	2
15	GEAR-MOTOR	MTR-0436-02-08-00-0		1
16	PIN 6n6x18	KLK-000083		1

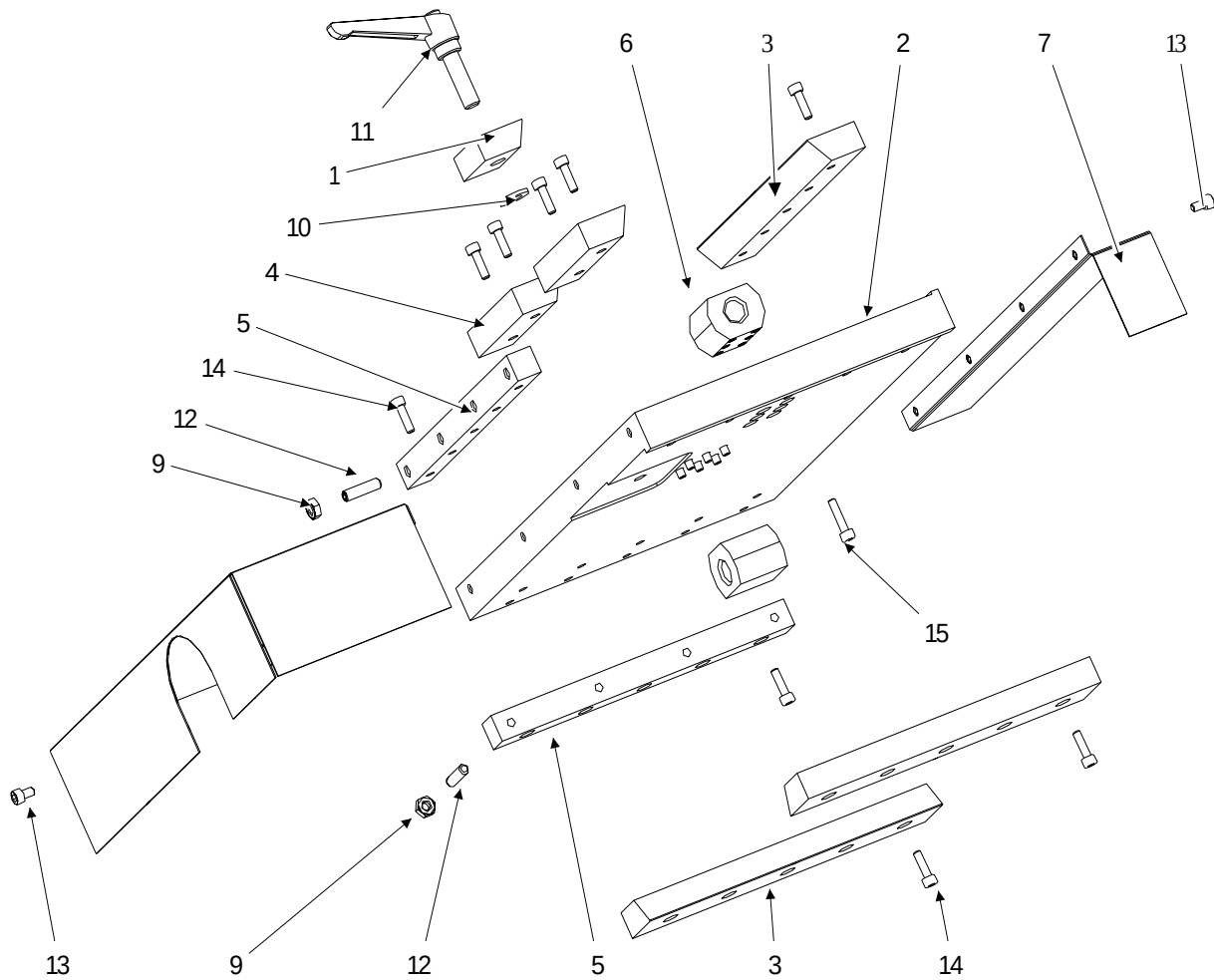
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
17	WHEEL WITH TIRE	KOL-000077		2
18	NUT M16	NKR-000123		4
19	HANDLE COVER	OSL-000147		1
20	EXTERNAL RETAINING RING 10	PRS-000002		6
21	ROUND WASHER 10,5	PDK-000026		4
22	ROUND WASHER 13	PDK-000118		4
23	SPRING WASHER 12.2	PDK-000053		4
24	SLEEVE 32x40x10	TLJ-000016		4
25	ROUNDED PRISMATIC KEY 10x8x60	WPS-000073		2
26	ROUNDED PRISMATIC KEY 12x8x60	WPS-000032		2
27	UPPER SPINDLE BEARING 6000 2Z P6 S 10x26x8	LOZ-000034		4
28	DOUBLE-ROW ANGULAR BALL BEARING 3208 2Z	LOZ-000122		2
29	EYE SCREW M12	SRB-000168		2
30	HEX. SOCKET BOLT M6x30	SRB-000119		4
31	HEX. SOCKET BOLT M16x50	SRB-000316		6
32	HEX CAP SCREW FULLY THREADED M12x35	SRB-000195		4
33	HEX. SOCKET BOLT M6x16	SRB-000107		4



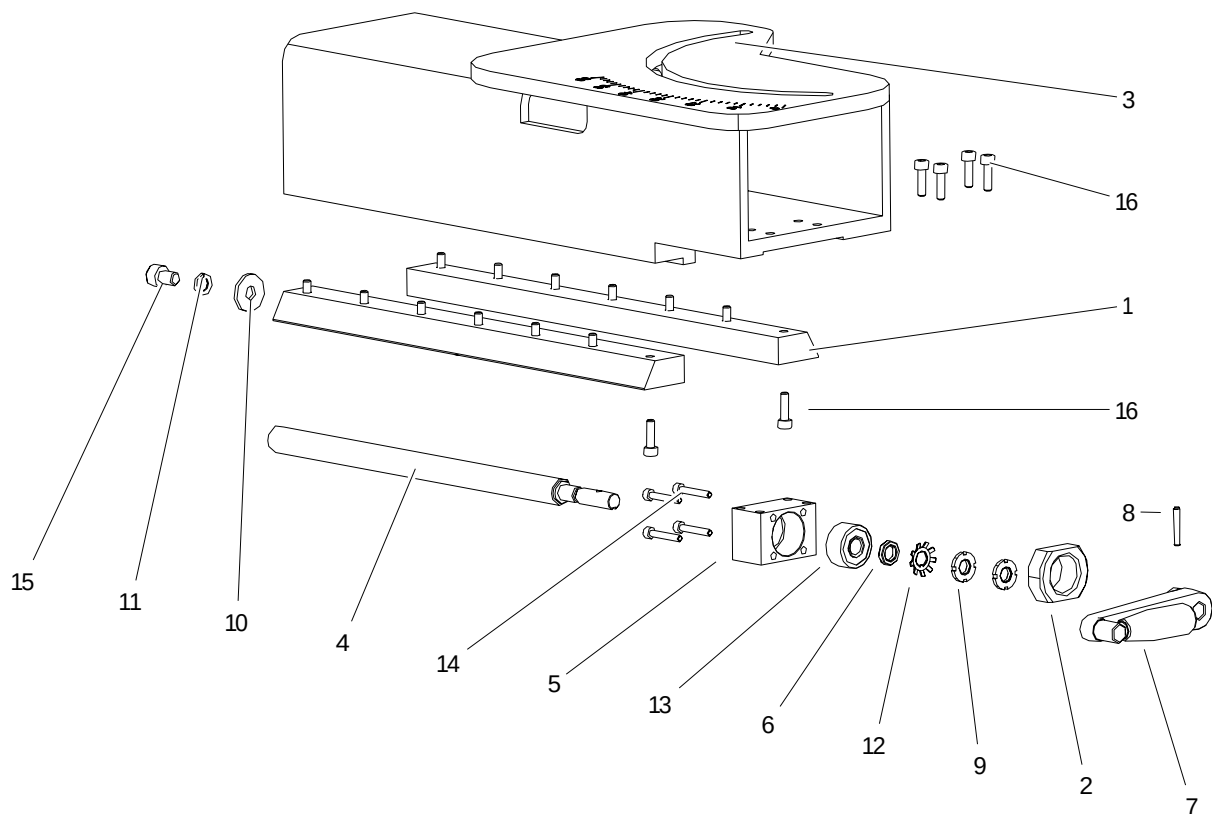
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	SIDE TABLE	STL-0436-03-01-00-0	3077	1
2	GUIDE Y	PRW-0436-03-02-00-0		2
3	SCREW Y	SRB-0436-03-05-00-0		1
4	BEARING MOUNTING	OPR-0436-03-07-00-0	3046	1
5	COVER	PKR-0436-03-08-00-0	3047	1
6	SHAFT	WLK-0436-03-09-00-0		1
7	CLAMPING SCREW	SRB-0436-03-10-00-0		1
8	PIN 5n6x26	KLK-000091		1
9	HANDWHEEL WITH HANDLE	KOL-000038		1
10	ROUND WASHER 10,5	PDK-000109		2
11	SPRING WASHER 10.2	PDK-000052		2
12	HANDLEVER GN 300-63-M8	RKJ-000010		1
13	SET SCREW M6x16	WKR-000351		1
14	ELECTRONIC TRAVEL METER	WSK-000012		1
15	BEARING 12x32x15,9	LOZ-000091		1
16	HEX. SOCKET BOLT M8x45	SRB-000225		4
17	HEX SOCKET BOLT M10x14	SRB-000319		2
18	HEX SOCKET BOLT M6x20	SRB-000114		16



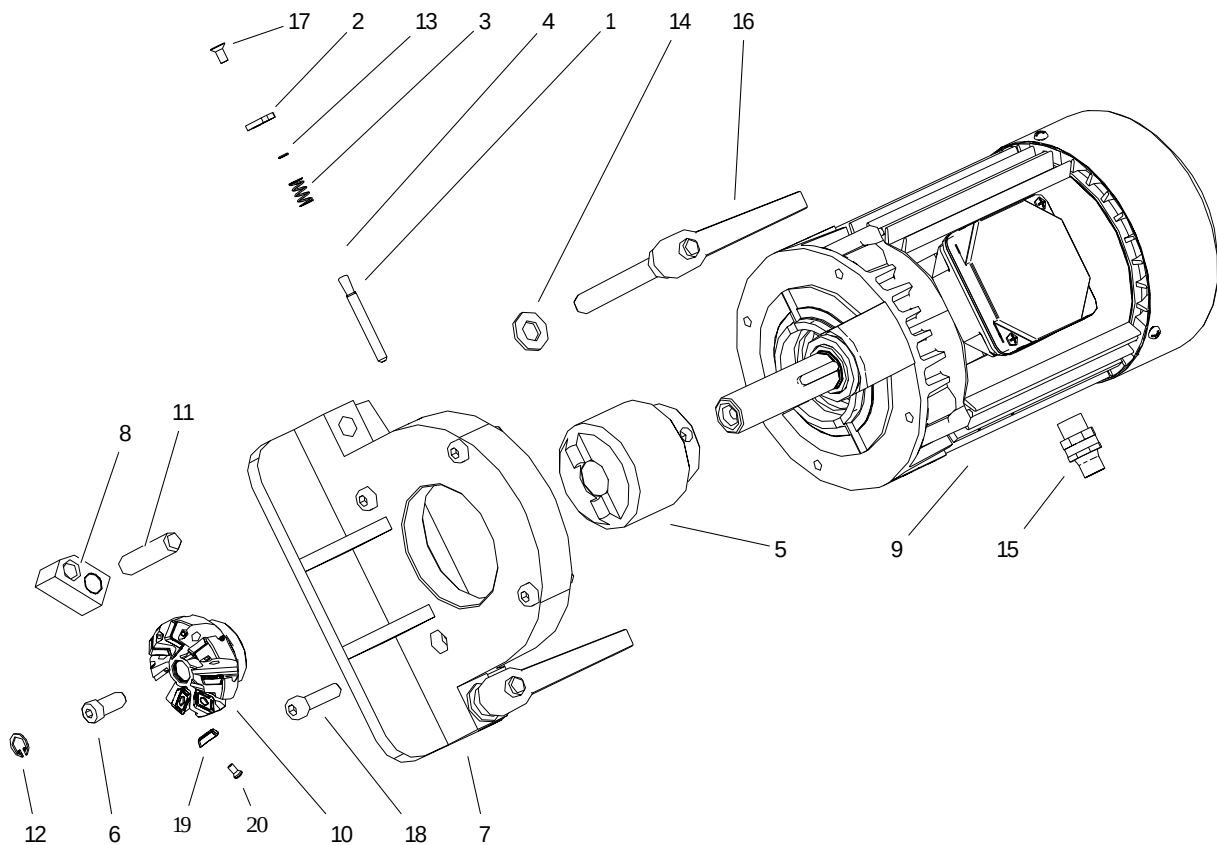
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	SIDE TABLE	STL-0436-03-01-00-0	3077	1
2	GUIDE Y	PRW-0436-03-02-00-0		2
3	SCREW Y	SRB-0436-03-05-00-0		1
4	BEARING MOUNTING	OPR-0436-03-07-00-0	3046	1
5	COVER	PKR-0436-03-08-00-0	3047	1
6	SHAFT	WLK-0436-03-09-00-0		1
7	CLAMPING SCREW	SRB-0436-03-10-00-0		1
8	PIN 5n6x26	KLK-000091		1
9	HANDWHEEL WITH HANDLE	KOL-000038		1
10	ROUND WASHER 10,5	PDK-000109		2
11	SPRING WASHER 10.2	PDK-000052		2
12	HANDLEVER GN 300-63-M8	RKJ-000010		1
13	SET SCREW M6x16	WKR-000351		1
14	ELECTRONIC TRAVEL METER	WSK-000012		1
15	BEARING 12x32x15,9	LOZ-000091		1
16	HEX. SOCKET BOLT M8x45	SRB-000225		4
17	HEX SOCKET BOLT M10x14	SRB-000319		2
18	HEX SOCKET BOLT M6x20	SRB-000114		16



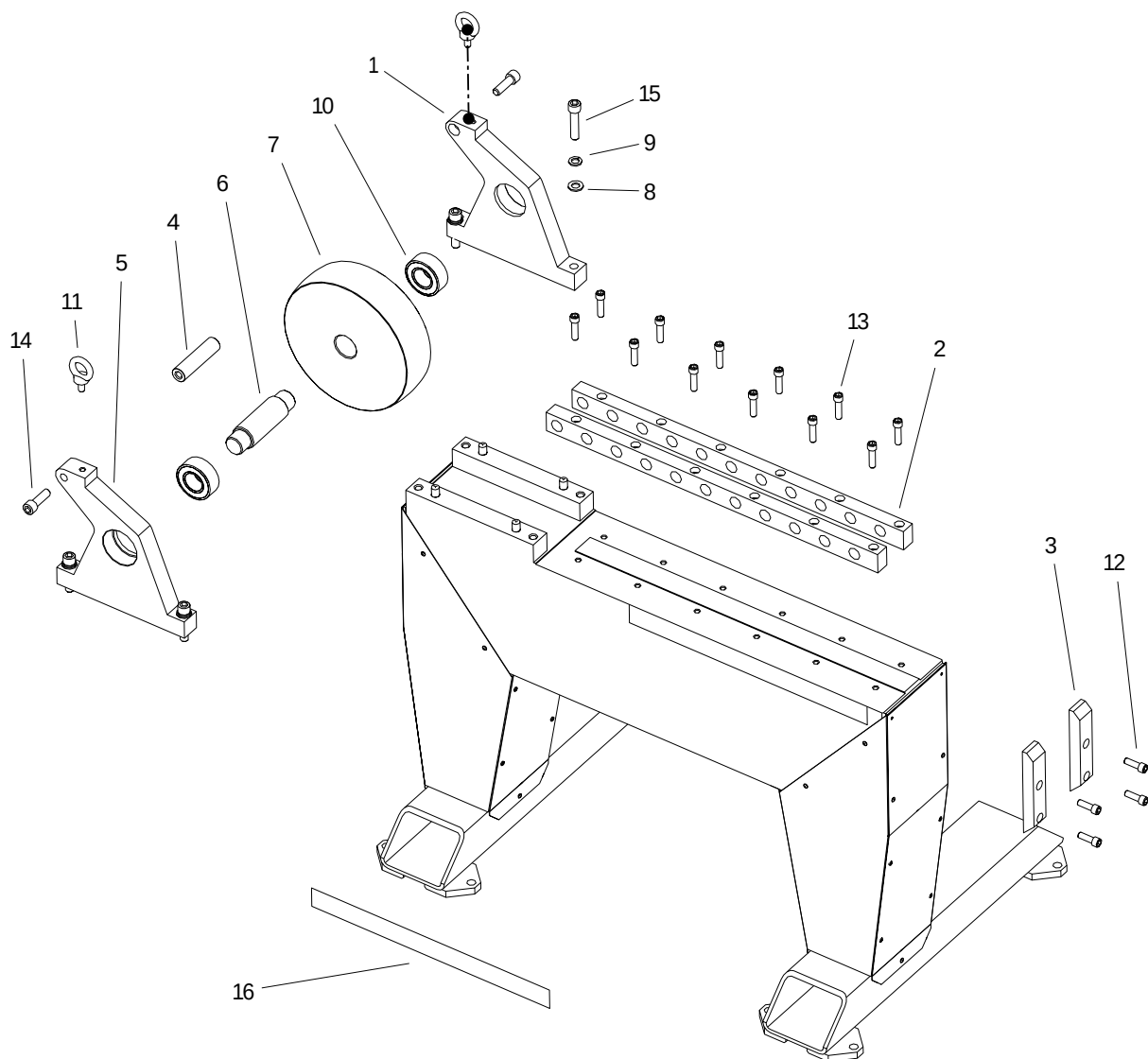
ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	LOCK Y	BLD-0436-03-04-00-0		1
2	MAIN BOARD	PLY-0436-04-01-00-0	3078	1
3	GUIDE X	PRW-0436-04-02-00-0		3
4	GUIDE X II	PRW-0436-04-03-00-0		2
5	CLAMP	DCS-0436-04-04-00-0		2
6	NUT	NKR-0436-04-05-00-0		2
7	LEFT COVER	OSL-0436-04-06-00-0	3051	1
8	RIGHT COVER	OSL-0436-04-07-00-0	3050	1
9	NUT M8	NKR-000092		8
10	ROUND WASHER 13	PDK-000118		1
11	HANDLEVER	RKJ-000054		1
12	HEX SOCKET FLAT POINT SET SCREW M8x30	WKR-000061		8
13	HEX. SOCKET BOLT M 6 x10	SRB-000101		8
14	HEX SOCKET BOLT M6x20	SRB-000114		29
15	HEX SOCKET BOLT M6X25	SRB-000115		12



ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	GUIDE Y	PRW-0436-03-02-00-0		2
2	COVER	PKR-0436-03-06-00-0	3045	1
3	MILLING UNIT BRACKET	WSP-0436-05-01-00-0	3079	1
4	SCREW X	SRB-0436-05-03-00-0		1
5	MAIN BEARING MOUNTING	OPR-0469-20-05-00-0		1
6	SCREW SPACER SLEEVE	TLJ-0469-20-12-00-0		1
7	CRANK WITH FOLDABLE HANDLE	KBA-000001		1
8	PIN 5n6x28	KLK-000050		1
9	BEARING NUT M12x1	NKR-000135		2
10	ROUND WASHER 10,5	PDK-000109		1
11	SPRING WASHER 10.2	PDK-000052		1
12	BEARING TOOTHED WASHER	PDK-000179		1
13	BEARING 12x32x15,9	LOZ-000091		1
14	HEX. SOCKET BOLT M5x30	SRB-000089		4
15	HEX SOCKET BOLT M10x14	SRB-000319		1
16	HEX SOCKET BOLT M6x20	SRB-000114		18

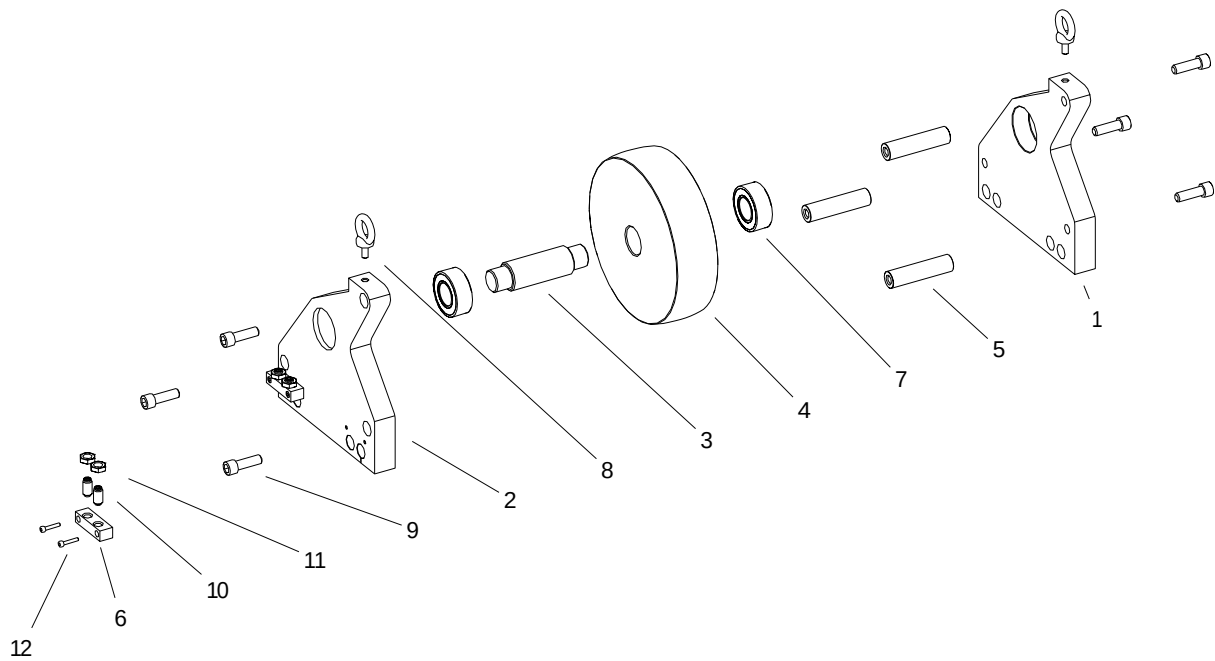


ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	MILL BLOCKADE	BLD-0152-02-02-03-1		1
2	PLATE BLOCKADE MILL	PLY-0152-02-02-04-1		1
3	SPRING 8x14,5x0,8	SPR-0152-02-02-05-0		1
4	RING BLOCKADE MILL	PRS-0152-02-02-08-1		1
5	MILLING BRUSCH	ZBI-0152-02-04-00-1		1
6	HEX. SOCKET BOLT M10x25	SRB-0152-02-11-00-0		1
7	MILLING UNIT BODY	KRP-0436-06-01-00-0	3056	1
8	NUT	NKR-0436-06-02-00-0	3057	2
9	SPINDLE MOTOR COMPLETE	SLN-0436-06-03-01-0		1
10	MILLING HEAD BODY	GLW-000013		1
11	PIN 12n6x50	KLK-000097		2
12	RETAINING RING INTERNAL 14w	PRS-000260		1
13	PROTECTIVE SPRING RING 6x08	PRS-000250		1
14	ROUND WASHER 13	PDK-000118		2
15	METAL ROTATIONAL COUPLING	ZLC-000069		1
16	HANDLEVER	RKJ-000053		2
17	SCREW M5x10	WKR-000155		1
18	HEX SOCKET BOLT-M8X30	SRB-000155		4
19	SPECIAL INSERT	PLY-000197		7
20	BOLT T15	SRB-000311		7

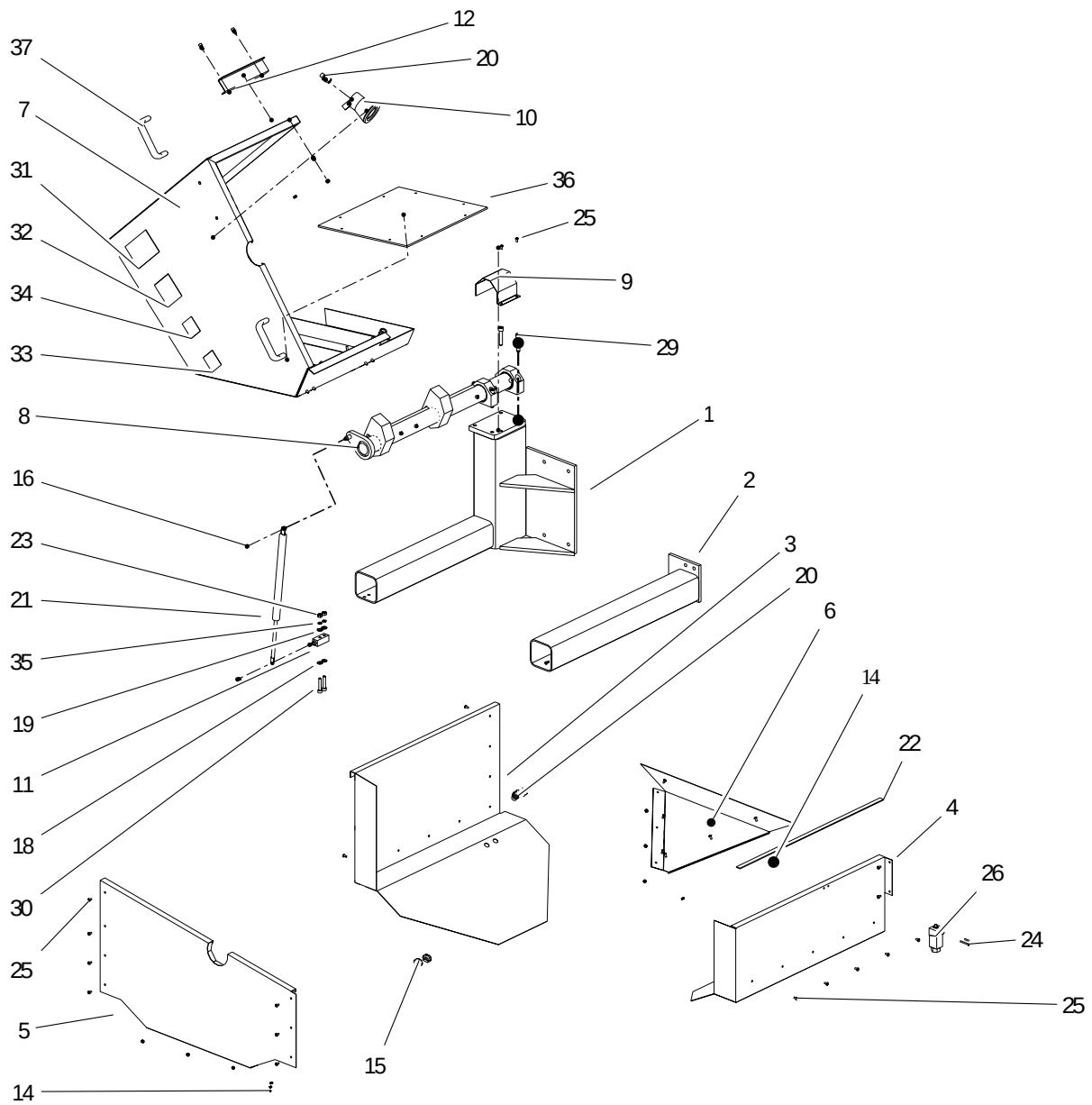


ITEM	DESCRIPTION	PART NUMBER	VARIANT	Q-TY
1	BEARING MOUNTING II	OPR-0436-01-03-00-0	3025	1
2	GUIDE	PRW-0436-01-05-00-0		2
3	BUMPER	ZDR-0436-01-15-00-0	3032	2
4	SHORT CONNECTOR	LCZ-0436-08-02-00-0	3059	1
5	BEARING MOUNTING	OPR-0436-08-03-00-0	3060	1
6	SHAFT	WLK-0436-08-04-00-0		1
7	PASSIVE SUPPORT WHEEL	KOL-0436-08-06-00-0		1
8	ROUND WASHER 17	PDK-000180		4
9	SPRING WASHER 16.2	PDK-000154		4
10	DOUBLE-ROW ANGULAR BALL BEARING 3208 2Z	LOZ-000122		2
11	EYE SCREW M12	SRB-000168		2
12	HEX. SOCKET BOLT M12x35	SRB-000308		4
13	HEX. SOCKET BOLT M12 x 45	SRB-000054		12
14	HEX. SOCKET BOLT M16x50	SRB-000316		2
15	HEX. SOCKET BOLT M16x70	SRB-000317		4
16	PIPE DIAMETER RANGE LABEL	NKL-0436-20-00-01-0		1

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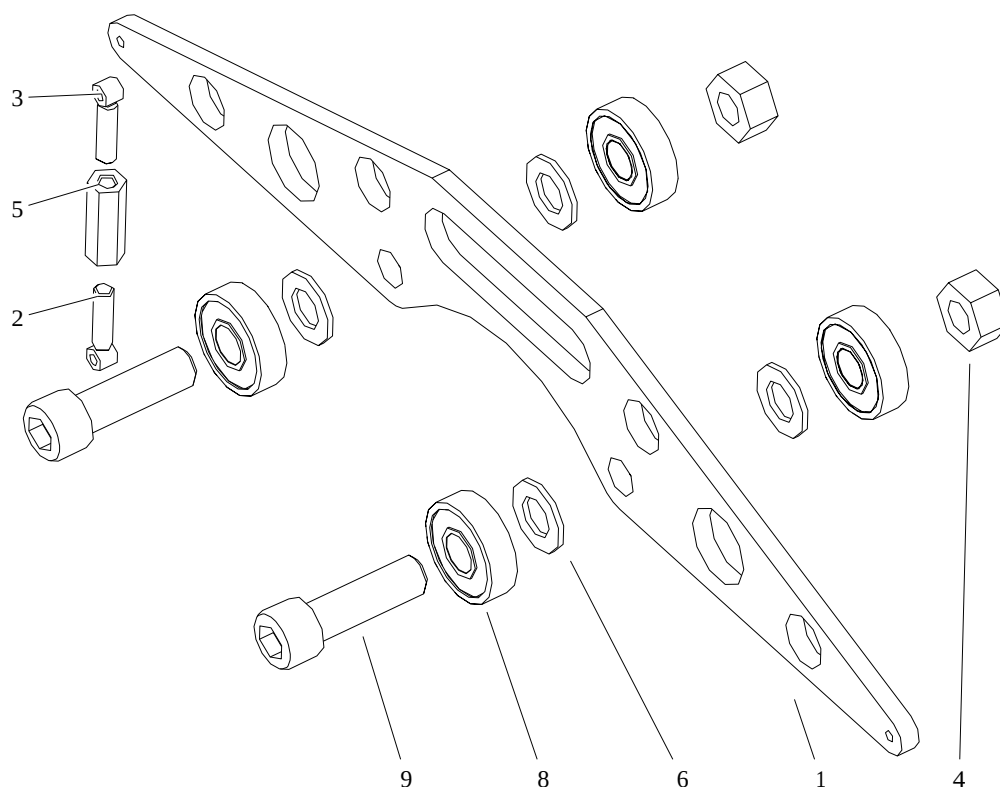


ITEM	DESCRIPTION	PART NUMBER	VARIANT	QTY
1	BEARING MOUNTING	OPR-0436-09-01-00-0	3064	1
2	BEARING MOUNTING II	OPR-0436-02-02-00-0	3044	1
3	SHAFT	WLK-0436-08-04-00-0		1
4	PASSIVE SUPPORT WHEEL	KOL-0436-08-06-00-0		1
5	SHORT CONNECTOR	LCZ-0436-08-02-00-0	3059	3
6	CATCH MOUNTING	OPR-0436-02-07-00-0	3039	2
7	DOUBLE-ROW ANGULAR BALL BEARING 3208 2Z	LOZ-000122		2
8	EYE SCREW M12	SRB-000168		2
9	HEX. SOCKET BOLT M16x50	SRB-000316		6
10	BALL CATCH COMPLETE	ZTR-0167-18-00-00-0		4
11	LOW HEX NUT M16	NKR-000123		4
12	HEX. SOCKET BOLT M6x30	SRB-000118		4



ITEM	DESCRIPTION	PART NUMBER	VARIANT	Q-TY
1	LEFT COVER BRACKET	WSP-0436-15-01-00-0	3069	1
2	RIGHT COVER BRACKET	WSP-0436-15-02-00-0	3070	1
3	LEFT COVER	OSL-0436-15-03-00-0	3071	1
4	RIGHT COVER	OSL-0436-15-04-00-0	3072	1
5	FRONT COVER COMPLETE	OSL-0436-15-05-00-0	3073	1
6	BACK COVER	OSL-0436-15-06-00-0	3074	1
7	TOP COVER COMPLETE	OSL-0436-15-07-00-0	3087	1

ITEM	DESCRIPTION	PART NUMBER	VARIANT	Q-TY
8	HINGE COMPLETE	ZWS-0436-15-08-00-0	3085	1
9	HINGE COVER	OSL-0436-15-09-00-0	3082	1
10	LAMP COMPLETE	LMP-0436-15-10-00-0		1
11	SPRING BRACKET	WSP-0436-15-12-00-0		1
12	HANDLE	ZDR-0436-15-13-00-0		1
13	HEX NUT-M6	NKR-000017		3
14	HEX. NUT M5	NKR-000016		19
15	LOW HEX. NUT M16x1.5	NKR-000084		2
16	EXTERNAL RETAINING RING 8z	PRS-000041		2
17	ROUND WASHER 6.4	PDK-000021		11
18	ROUND WASHER 8.4	PDK-000022		4
19	SPRING WASHER 8.2	PDK-000051		2
20	METAL ROTATIONAL COUPLING	ZLC-000069		3
21	GAS SPRING	SPR-000031		1
22	LAMINATE TAPE	TSM-000013		1
23	SELF-TAPPING SCREW 4.8x9.5	WKR-000365		2
24	SCREW M4x35	WKR-000452		2
25	SOCKET BUTTON HEAD CAP SCREW M5x10	WKR-000096		34
26	LIMIT SWITCH	LCZ-000024		1
27	SPRING WASHER 6,1	PDK-000046		11
28	HEX. SOCKET BOLT M6x14	SRB-000105		11
29	HEX. SOCKET BOLT M10x50	SRB-000232		4
30	HEX. SOCKET BOLT M8x40	SRB-000157		2
31	COVER REQUIREMENT WARNING LABEL	NKL-0436-20-00-02-0		1
32	HAND PROTECTION WARNING LABEL	NKL-0436-20-00-06-0		1
33	EYE PROTECTION REQUIREMENT LABEL	NKL-000006		1
34	EAR PROTECTION REQUIREMENT LABEL	NKL-000005		1
35	HEX. NUT M8	NKR-000019		2
36	WINDOW	SZY-0436-15-07-03-0		1
37	HANDLE	UCW-000214		1



ITEM	DESCRIPTION	PART NUMBER	VARIANT	Q-TY
1	PIPE CLAMP	DCS-0436-12-01-00-0	3065	1
2	CLAMP SCREW I	SRB-0436-12-02-00-0		1
3	CLAMP SCREW II	SRB-0436-12-02-00-1		1
4	HEX. NUT M20	NKR-000096		2
5	TIGHTENING HEX NUT	NKR-000137		1
6	ROUND WASHER 21	PDK-000148		4
7	CHAIN I=2000	LNC-000005		1
8	BEARING 6304ZZ	LOZ-000074		4
9	HEX SOCKET BOLT M20x65	SRB-000315		2

5.

5. DECLARATION OF CONFORMITY

EC Declaration of Conformity

We

***PROMOTECH Ltd.
Elewatorska Street 23/1
15-620 Bialystok, Poland***

declare with full responsibility that product:

PBM-1000 STATIONARY PIPE BEVELING MACHINE

which the declaration applies to is in accordance with the following standard(s) placed below:

- EN 60204-1

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

Bialystok, 21 October 2011



Marek Siergiej
Chairman

6. TEST CERTIFICATE

Machine control card

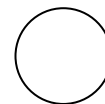
PBM-1000 STATIONARY PIPE BEVELING MACHINE

Serial number.....

Electric test

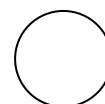
Type of test	Result	Name of tester
Test with sinusoidal voltage (voltage 1000 V, frequency 50 Hz)		 Date
Resistance of the protective circuit	 Ω	 Signature

Quality control.....



Adjustments, inspections

Quality control.....



7. WARRANTY CARD

WARRANTY CARD No.....

..... in the name of Manufacturer warrants the PBM-1000 Stationary Pipe Beveling Machine to be free of defects in material and workmanship under normal use for a period of 12 months from date of sale.

This warranty does not cover cutting inserts, 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

Quality control.....

Date of sale

Signature of seller.....

1.02 / 7 May 2012

***WE RESERVE THE RIGHT TO MAKE
CORRECTIONS AND MODIFICATIONS WITHOUT PRIOR NOTICE***

Operator's Manual – PBM-1000 Stationary Pipe Beveling Machine