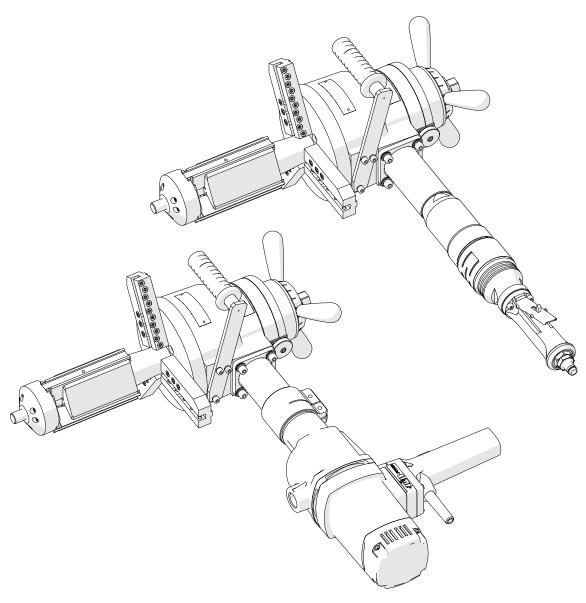


# **OPERATOR'S MANUAL**

# PRO 10 PB (PBE)

# PIPE BEVELLING MACHINE



ul. Elewatorska 23/1, 15-620 Bialystok, Poland Phone: +48 85 678-34-00, Fax: +48 85 651-15-31 <a href="www.promotech.eu">www.promotech.eu</a> e-mail: <a href="mailto:office@promotech.eu">office@promotech.eu</a>

# **Contents**

1. GENERAL INFORMATION	3
1.1. Application	3
1.2. Technical data	3
1.3. Design	5
1.4. Equipment included	6
2. SAFETY PRECAUTIONS	7
3. STARTUP AND OPERATION	9
3.1. Installing the jaw blocks, adapters, tool holders, and tool bits	9
3.2. Installing (removing) the mandrel and adjusting the clearance	10
3.3. Installing the motor	11
3.4. Clamping the machine into the pipe	12
3.5. Preparing the air (for machine with air motor)	13
3.6. Operating	13
4. ACCESSORIES	15
4.1. Small expanding mandrel set	15
4.2. Extension set	16
4.3. Large expanding mandrel	17
4.4. Flange facing attachment	18
4.4.1. General information	18
4.4.2. Equipment included	18
4.4.3. Installing	19
4.4.4. Operating	21
4.4.5. Adjusting the slider clearance	22
4.5. Oval attachment	23
4.5.1. General information	23
4.5.2. Equipment included	23
4.5.3. Installing	24
4.5.4. Operating	25
4.5.5. Adjusting the slider clearance	26
5. ADDITIONAL EQUIPMENT AND WEARING PARTS	27
6. DECLARATIONS OF CONFORMITY	28
7. QUALITY CERTIFICATE	30
8. WARRANTY CARD	31



#### 1. GENERAL INFORMATION

# 1.1. Application

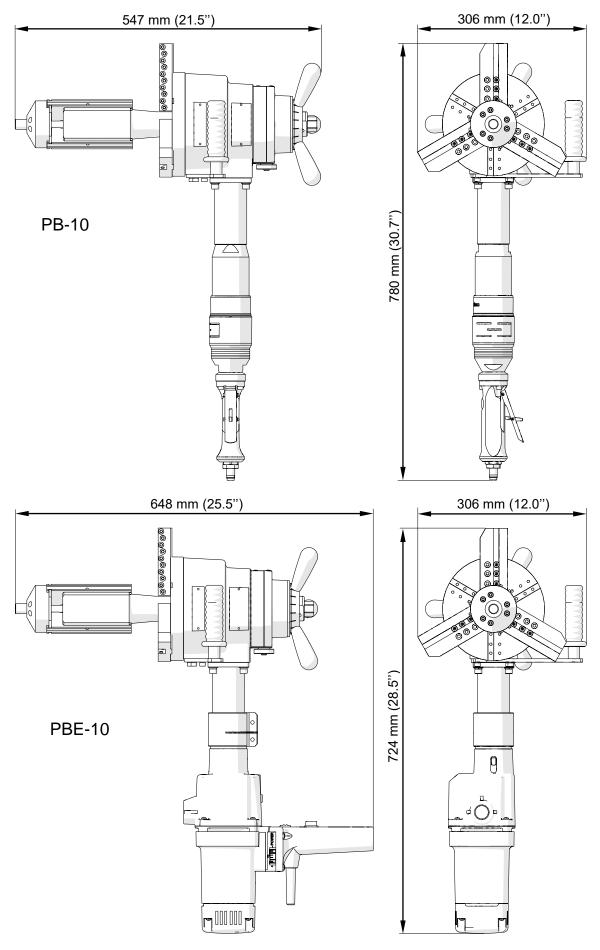
The PRO 10 PB (PBE) is a pipe bevelling machine designed to mill edges of pipes made of carbon and stainless steel, aluminum alloys, and copper-nickels. Depending on the tool bit used, the machine can perform external and internal bevelling, J-bevelling, internal calibration, and facing pipes with internal diameters of 84–269 mm (3.31–10.59"). Up to three tool bits can be installed at the same time.

Using an optional small expanding mandrel will allow milling pipes with internal diameters from 38 mm to 86 mm (1.50–3.39"), and using an extension set will allow milling pipes with diameters from 192 mm to 349 mm (7.56–13.74"). Attachments will allow facing pipe flanges with diameters from 90 to 508 mm (3.54–20.00") and milling oval pipes from 126 mm to 296 mm (4.96–11.65").

#### 1.2. Technical data

	PRO 10 PB	PRO 10 PBE
Pressure	0.6 MPa (87 psi)	_
Voltage	_	1~ 110–120 V, 50–60 Hz 1~ 220–240 V, 50–60 Hz
Connection	CEJN 410 DN 10.4 GZ 3/8" BSPT coupling	electrical plug
Air consumption	1750 NI/min (62 CFM)	_
Power	1800 W	1800 W
Pipe internal diameter	84-269 mm (3.31-10.59")	84-269 mm (3.31-10.59")
Maximum pipe wall thickness	15 mm (0.59")	15 mm (0.59")
Rotational speed without load	17 rpm	_
Nominal rotational speed	9 rpm	12-29 rpm (gear I) 41-96 rpm (gear II)
Protection class	_	II
Required ambient temperature	0-40°C (34-104°F)	0-40°C (34-104°F)
Noise level	above 70 dB	below 70 dB
Weight (with motor)	33 kg (73 lbs)	35.9 kg (79 lbs)





This document is protected by copyrights.

Copying, using, or distributing without permission of PROMOTECH is prohibited.



# 1.3. Design

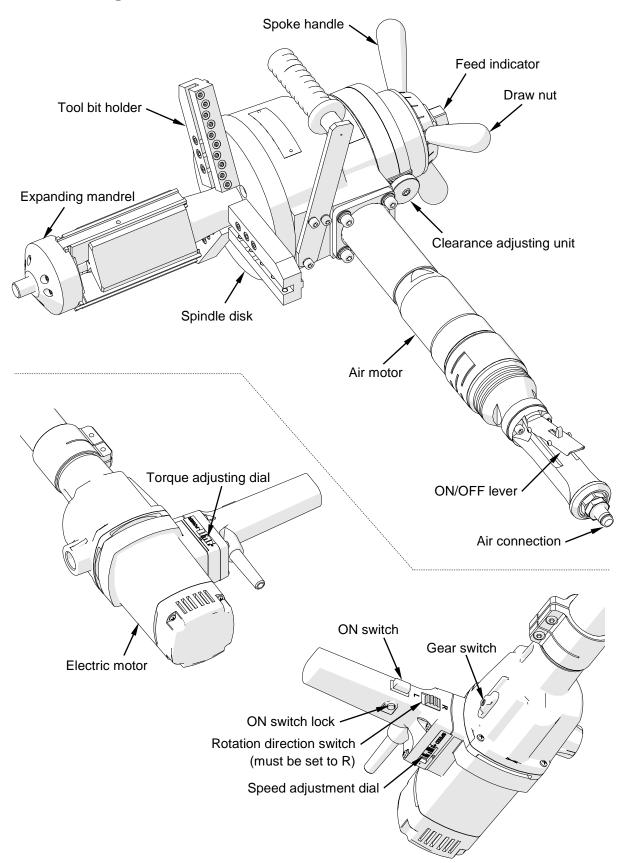


Fig. 1. View of the PRO 10 PB and of the PRO 10 PBE electric motor

This document is protected by copyrights.

Copying, using, or distributing without permission of PROMOTECH is prohibited.



# 1.4. Equipment included

The PRO 10 PB (PBE) is supplied in a metal box with complete standard equipment. The included equipment consists of the following elements.

	PRO 10 PB	PRO 10 PBE
Bevelling machine (without tool bits)	1 unit	1 unit
Standard expanding mandrel	1 unit	1 unit
Metal box	1 unit	1 unit
Jaw blocks (number 1, 2, 3, 4, 5, 6) and adapter	3 sets	3 sets
Coolant container	1 unit	1 unit
Tool container	1 unit	1 unit
6 mm hex wrench	1 unit	1 unit
5 mm hex wrench	1 unit	1 unit
4 mm hex wrench	1 unit	1 unit
24 mm socket wrench with handle	1 unit	1 unit
Operator's Manual	1 unit	1 unit



# 2. SAFETY PRECAUTIONS

- 1. Before beginning, read this Operator's Manual and complete proper occupational safety and health training.
- 2. The machine must be used only in applications specified in this Operator's Manual.
- 3. The machine must be complete and all parts must be genuine and fully operational.
- 4. The specifications of the air (power) source must conform to those specified on the rating plate.
- 5. Supply the machine with air motor only with clean and lubricated air. The air source must be equipped with a filter, regulator, and lubricator.
- 6. Never pull the hose (cord) as this may cause its damage and result in serious injury.
- 7. Untrained bystanders must not be present near the machine.
- 8. Before beginning check the condition of the machine and air (power) source, including the supply hose (cord), coupling (plug), control components, and milling tools.
- 9. Avoid unintentional starts. Do not lay the machine down in such a manner that will start the motor and never carry the machine with air motor using the ON/OFF lever.
- 10. Keep the machine dry. Exposure to rain, snow, or frost is prohibited.
- 11. Keep the work area well lit, clean, and free of obstacles.
- 12. Never use machine near flammable liquids or gases, or in explosive environments.
- 13. Secure the pipe to prevent it from dropping or rolling.
- 14. Use only tools specified in this Operator's Manual.
- 15. Never use tools that are dull or damaged.
- 16. Install tools securely. Remove adjusting keys and wrenches from the work area before connecting the machine to the air (power) source.
- 17. Before every use, inspect the machine to ensure it is not damaged. Check whether any part is cracked or improperly fitted. Make sure to maintain proper conditions that may affect the operation of the machine.
- 18. Always use eye and hearing protection, protective footwear, and protective clothing during operation. Do not wear loose clothing.
- 19. Operate the machine with electric motor only with the rotation direction switch set to position 'R'. Using left rotation (rotation direction switch set to 'L') may damage the machine.
- 20. Do not touch moving parts or metal chips formed during milling. Prevent objects from being caught in moving parts.



- 21. After every use, remove metal chips and excess coolant from the machine. Never remove chips with bare hands. Clean the machine with a cotton cloth without using any agents.
- 22. Cover steel parts with a thin grease layer to protect them against rust when not in use for any extended period.
- 23. Maintain the machine and install/remove parts and tools only when the machine is unplugged from the air (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 other damage that could affect the technical state of the machine, stop the operation and immediately send the machine to the service center for inspection and repair.
- 26. Never leave the machine unattended during operation.
- 27. Remove from the worksite and store in a secure and dry location when not in use, previously removing the tools from holders.



# 3. STARTUP AND OPERATION



Adhere to all safety precautions.

# 3.1. Installing the jaw blocks, adapters, tool holders, and tool bits

Use the following table to select jaw blocks and adapters suitable to the diameter of the pipe to be machined.

Pipe intern	Pipe internal diameter Jaw block			
[mm]	[inch]	number	Adapter	
84–100	3.31-3.94	_	ı	
99–115	3.90-4.53	1	ı	
115–131	4.53-5.16	2	ı	
130–146	5.12-5.75	3	_	
146–162	5.75-6.38	4	_	
161–177	6.34-6.97	5	_	
176–192	6.93-7.56	6	ı	
192–208	7.56–8.19	2	+	
207–223	8.15–8.78	3	+	
223–239	8.78–9.41	4	+	
238–254	9.37-10.00	5	+	
253–269	9.96–10.59	6	+	

Use the 5 mm hex wrench to screw the adapters (1, Fig. 2) and the jaw blocks 2 to the expanding mandrel.

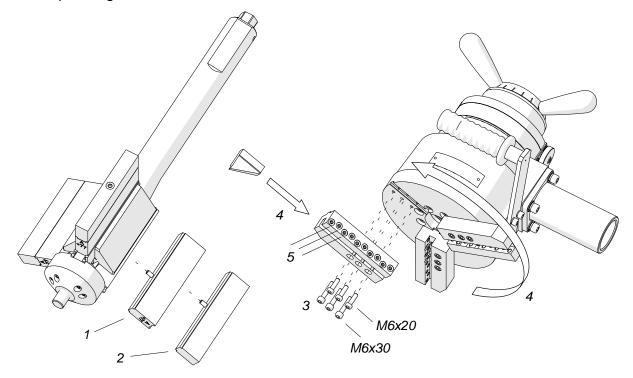


Fig. 2. Installing the jaw blocks, adapters, tool holders, and tool bits

This document is protected by copyrights.

Copying, using, or distributing without permission of PROMOTECH is prohibited.



Use the same 5 mm hex wrench to install the tool holders to the spindle disk using six screws (3). Then, select up to three tool bits suitable to planned use and attach them to the holders according to the rotation direction 4. Next, tighten the screws 5 using the 4 mm hex wrench.

# 3.2. Installing (removing) the mandrel and adjusting the clearance

Loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3), and insert the mandrel into the machine (2). Make sure that tool bits installed are not in contact with the mandrel. Next, rotate the spoke handles to the right (3) by at least 10 turns until the mandrel engages with the machine completely. Then, tighten the set screw (4) and check whether the spoke handles can be rotated in both directions easily. If the screw is too tight, readjust it. Finally, tighten the lock nut (5).

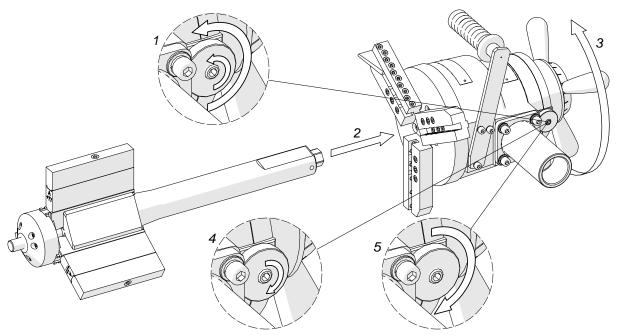


Fig. 3. Installing the mandrel into the machine

If the expanding mandrel becomes loose causing vibrations of the tool bits during machining, perform the above actions without removing the mandrel from the machine.

To remove the mandrel, loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3) to at least one turn. Then, rotate the spoke handles to the left to disengage the mandrel from the machine.



#### 3.3. Installing the motor

Insert the air motor into the machine (1, Fig. 4a) in such a way to place the arbor in the socket 2, and tighten the motor by rotating it to the left (3).

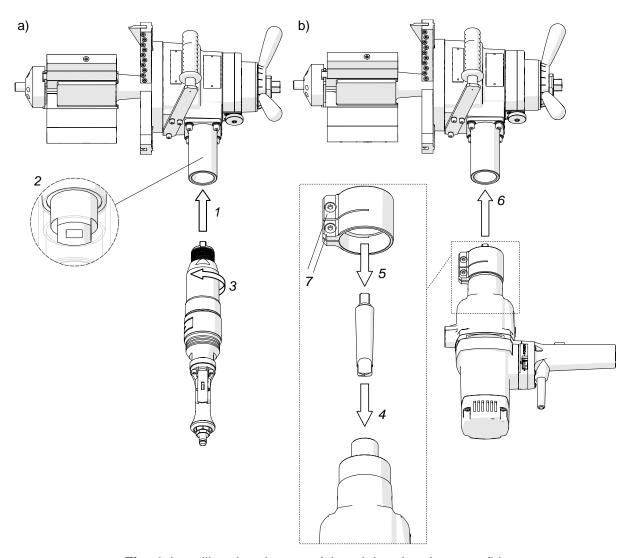


Fig. 4. Installing the air motor (a) and the electric motor (b)

To install the electric motor, insert the MT3 arbor into the motor (4, Fig. 4b), and hit the arbor to position it tightly using a mallet. Put the clamping ring (5) onto the motor, then install entirety into the machine (6) by placing the arbor in the socket 2, and tighten the clamping ring using the 6 mm hex wrench (7). Finally, set the rotation direction switch in position R as in Fig. 1.



# 3.4. Clamping the machine into the pipe

Insert the assembled machine into the pipe (1, Fig. 5) in such a way to place the tool bit(s) at the distance of at least 3 mm (0.12") from the pipe end. Then, expand the jaw blocks to the inside diameter of the pipe by rotating the draw nut 2 to the right using the 24 mm socket wrench. The jaw blocks must be installed beyond the end preparation location 3.

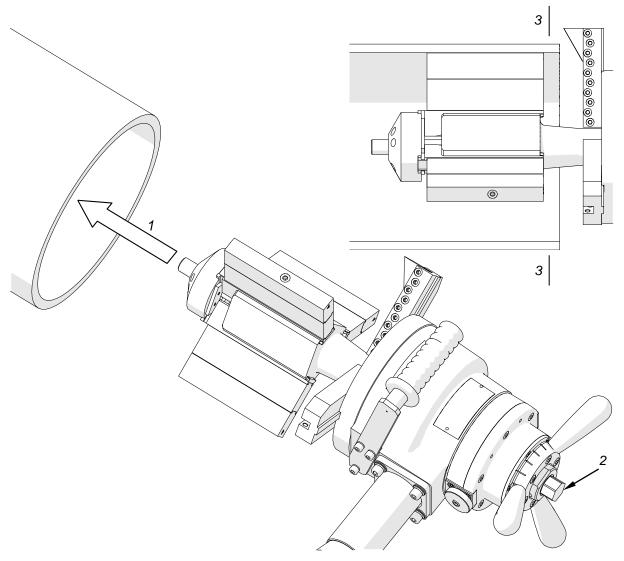


Fig. 5. Clamping the machine into the pipe



# 3.5. Preparing the air (for machine with air motor)

Connect the machine to a correctly prepared air supply of sufficient purity using a hose with the internal diameter of at least 12 mm (0.5"). The air installation must be equipped with an air preparation unit: filter, regulator, and lubricator (FRL).

Maintain the FRL unit as required to keep the water trap drained, filter cleaned, and the lubricator oil reservoir filled so that there is a drop of oil every 2–5 seconds. Use only oil whose ignition temperature exceeds 260°C (500°F). If the machine is to be left idle for at least 24 hours, increase the delivery of oil and run the motor for 2–3 seconds, which will prevent rusting and degrading of the rotor vanes.

# 3.6. Operating

Once the machine is connected to a proper supply, set the maximum torque using the torque adjusting dial and select gear I using the gear switch (only for machine with electric motor). To start the operation, press the ON/OFF lever (air machine) or hold the ON switch (electric machine). To lock the switch in position ON, press the ON switch lock first.

Spread the coolant on the working edge. Then, bring the tool bit(s) close to the pipe by rotating the spoke handles to the right. If the pipe face is not perpendicular to the pipe axis, the tool bit will machine only a small segment of the pipe during initial rotations. Thus, the feed rate should be chosen low until the tool bit is contacting the pipe continually during at least one rotation. The axial feed is 0.11 mm (0.004") per graduation (Fig. 6) or 2 mm (0.08") per one complete turn of the spoke handles. The machine with electric motor allows toggling the speed between gear I and II after stopping the rotation, and adjusting the rotational speed.

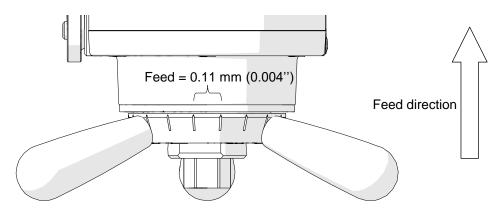


Fig. 6. View of the feed indicator



Continue machining by rotating the spoke handles to the right. Use adequate feed rate to establish a continuous chip cut. If the feed rate is too low, only light stringer chips will be removed, while too high feed will make machining difficult and the chip will start to have a rough or torn appearance. Never allow the tool bit to burnish the surface. Change the feed rate to minimize chatter problems if they occur. Stainless steel, which work hardens, must be worked with a high enough feed, 0.08–0.15 mm (0.003–0.006") per rotation, to stay under the work hardened surface.

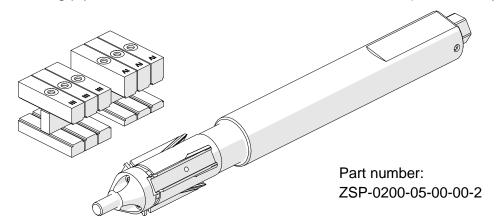
Once the pipe end is machined completely, discontinue rotating the spoke handles and allow the spindle to rotate several more turns to improve the finish of the surface. Then, turn off the motor by releasing the ON/OFF lever, or the ON switch in the machine with electric motor, and wait until the rotation stops. Separate the tool bit(s) from the pipe end to at least 3 mm (0.12") by rotating the spoke handles to the left. Finally, loosen the draw nut using the 24 mm socket wrench to release the clamping, and remove the machine from the pipe. Use petroleum ether to clean the pipe from excess coolant. Clean the machine with a cotton cloth without using any agents.



# 4. ACCESSORIES

# 4.1. Small expanding mandrel set

Allows machining pipes with internal diameters from 38 to 86 mm (1.50–3.39").



Included equipment consists of the following elements.

Small expanding mandrel	1 unit
Jaw blocks (number I, II, III, IV)	3 sets
3 mm hex wrench	1 unit

Install the mandrel after previously removing the existing expanding mandrel. To do this, loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3) to at least one turn. Then, rotate the spoke handles to the left to disengage the mandrel from the machine.

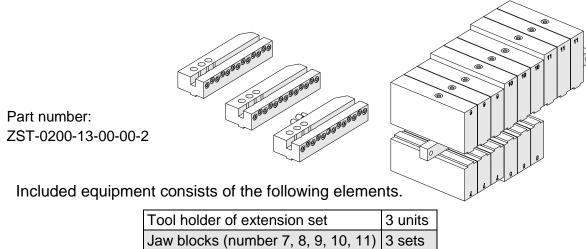
Then, use the following table to select jaw blocks of the small expanding mandrel set suitable to the inside diameter of the pipe to be machined, use the 3 mm hex wrench to tighten them to the small expanding mandrel as shown in Fig. 2, and install the mandrel into the machine (2, 3, 4, 5, Fig. 3).

Pipe internal dia with small expanding	Jaw block number	
[mm]		
38–47.5	1.50–1.87	_
47.5–57.5	1.87–2.26	I
57–67	2.24-2.64	II
66.5–76.5	2.62-3.01	III
76–86	2.99–3.39	IV



#### 4.2. Extension set

Allows machining pipes with internal diameters from 192 to 349 mm (7.56–13.74") in combination with the standard expanding mandrel. Clamping inside a pipe with diameter of 349 mm will enable machining up to 8 mm (0.31") of pipe wall.



Tool holder of extension set 3 units
Jaw blocks (number 7, 8, 9, 10, 11) 3 sets
Metal box 1 unit
5 mm hex wrench 1 unit
4 mm hex wrench 1 unit

Install the set after previously removing the existing tool holders. To do this, use the 5 mm hex wrench to unscrew the screws (3, Fig. 2) and use them to install the tool holders of the extension set.

Use the following table to select jaw blocks of the extension set suitable to the inside diameter of the pipe to be machined, and use the same 5 mm hex wrench to tighten them to the standard expanding mandrel as shown in Fig. 2. Then, install tool bits in holders by tightening the screws (5, Fig. 2) using the 4 mm hex wrench.

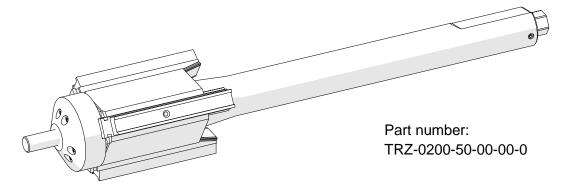
Pipe internation with standard mandrel and extension [mm]	d expanding jaw blocks of	Jaw block number	Adapter
192–208	7.56–8.19	7	-
208–224	8.19–8.82	8	_
224–240	8.82-9.45	9	ı
240–256	9.45-10.08	10	_
256–272	10.08–10.71	11	-
269–285	10.59–11.22	7	+
285–301	11.22–11.85	8	+
301–317	11.85–12.48	9	+
317–333	12.48–13.11	10	+
333–349	13.11–13.74	11	+

This document is protected by copyrights.



# 4.3. Large expanding mandrel

Allows machining pipes with internal diameters from 126 to 296 mm (4.96–11.65") when used with standard jaw blocks. Additionally, when used with jaw blocks of the extension set, the large expanding mandrel enables the machine to be installed inside pipes with diameters from 219 to 376 mm (8.62–14.80") for flange facing.



Install the mandrel after previously removing the existing expanding mandrel. To do this, loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3) to at least one turn. Then, rotate the spoke handles to the left to disengage the mandrel from the machine.

Use the following table to select either standard jaw blocks suitable to the inside diameter of the pipe to be machined or jaws blocks of the extension set for flange facing. Then, use the 5 mm hex wrench to tighten them to the large expanding mandrel as shown in Fig. 2, and install the mandrel into the machine (2, 3, 4, 5, Fig. 3).

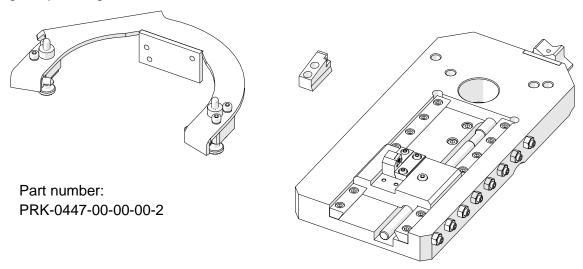
with large mandrel a	nal diameter e expanding and standard blocks [inch]	Jaw block number	Adapter	Pipe internal diameter with large expanding mandrel and jaw blocks of extension set [mm] [inch]		Jaw block number	Adapter
126–142	4.96–5.59	1	_	219–235	8.62–9.25	7	_
142–158	5.59-6.22	2	_	235–251	9.25–9.88	8	_
157–173	6.18–6.81	3	_	251–267	9.88–10.51	9	_
173–189	6.81–7.44	4	_	267–283	10.51–11.14	10	_
188–204	7.40-8.03	5	_	283–299	11.14–11.77	11	_
203–219	7.99–8.62	6	_	296–312	11.65–12.28	7	+
219–235	8.62–9.25	2	+	312–328	12.28–12.91	8	+
234–250	9.21–9.84	3	+	328-344	12.91–13.54	9	+
250–266	9.84–10.47	4	+	344–360	13.54–14.17	10	+
265–281	10.43–11.06	5	+	360–376	14.17–14.80	11	+
280–296	11.02–11.65	6	+			•	•



# 4.4. Flange facing attachment

#### 4.4.1. General information

Allows facing flanges with diameters from 90 to 508 mm (3.54–20") with the machine clamped inside a pipe with internal diameter either of 84–269 mm (3.31–10.59") using the standard expanding mandrel or of 219–376 mm (8.62–14.8") using the large expanding mandrel.



Flange diameter	90–508 mm (3.54–20")
Automatic feed range	180.5 mm (7.11")
Diameter of rotating parts	569.4 mm (22.42")
Feed per rotation	0.33 mm (0.013", with one tripper block engaged)
reed per rotation	0.66 mm (0.026", with two tripper blocks engaged)

# 4.4.2. Equipment included

Equipment of the flange facing attachment consists of the following elements.

Milling unit for flanges	1 unit
Holder with two tripper blocks	1 unit
Cutting insert	8 units
Fixing screw for cutting insert	2 units
Internal insert holder	1 unit
External insert holder	1 unit
Metal box	1 unit
M6x35 screw	3 units
M6x30 screw	3 units
M6x14 screw	3 units
5 mm hex wrench	1 unit
4 mm hex wrench	1 unit
3 mm hex wrench	1 unit
13 mm combination wrench	1 unit
T15 screwdriver	1 unit
Tool container	1 unit

This document is protected by copyrights.



# 4.4.3. Installing

Remove the existing expanding mandrel. To do this, loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3) to at least one turn. Then, rotate the spoke handles to the left to disengage the mandrel from the machine.

Use the same 5 mm hex wrench to unscrew the screws (3, Fig. 2) and remove the existing tool holders.

Next, remove the machine handle by unscrewing three screws with washers (1, Fig. 7), and use them to install the holder with two tripper blocks (2). Then, use the 4 mm hex wrench to tighten the set screws 3 at both sides of the holder, and install the milling unit to the spindle disk (4) with six screws using the 5 mm hex wrench.

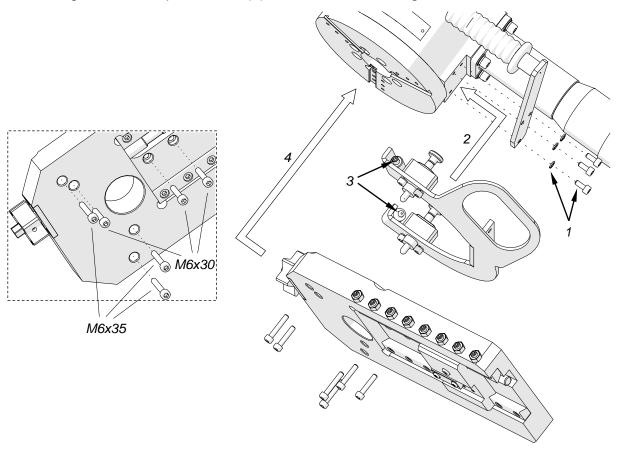


Fig. 7. Installing the flange facing attachment

Depending on the diameter of the flange to be machined, select either the internal ( $\emptyset$ 90–451, 3.54–17.76") or external insert holder ( $\emptyset$ 147–508, 5.79–20.00"), onto which install a cutting insert using the supplied screwdriver (1, Fig. 8). Then, use the 4 mm hex wrench to tighten the clamp 2, and slide the insert holder under the clamp (3) and tighten with the screws 4.

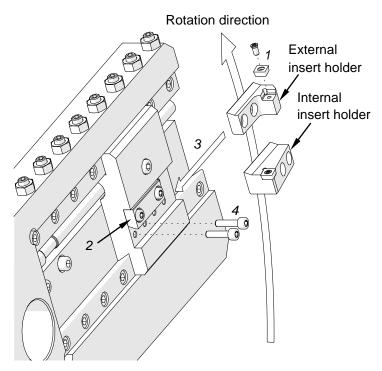


Fig. 8. Installing the tool

Next, use the following table to either select standard jaw blocks suitable to the inside diameter of the flange to be machined and screw them to the standard expanding mandrel or select jaw blocks of the extension set and attach them to the large expanding mandrel (Fig. 2).

with standa mandrel a	nal diameter ard expanding and standard blocks	Jaw block number	Adapter	Pipe internal diameter with large expanding mandrel and jaw blocks of extension set		Jaw block number	Adapter
[mm]	[inch]			[mm]	[inch]		
84–100	3.31–3.94	ı	1	219–235	8.62-9.25	7	_
99–115	3.90-4.53	1	-	235–251	9.25–9.88	8	_
115–131	4.53–5.16	2	_	251–267	9.88–10.51	9	_
130–146	5.12-5.75	3		267–283	10.51–11.14	10	_
146–162	5.75-6.38	4	-	283–299	11.14–11.77	11	_
161–177	6.34–6.97	5	_	296–312	11.65–12.28	7	+
176–192	6.93–7.56	6	_	312–328	12.28–12.91	8	+
192–208	7.56–8.19	2	+	328–344	12.91–13.54	9	+
207–223	8.15–8.78	3	+	344–360	13.54–14.17	10	+
223–239	8.78–9.41	4	+	360–376	14.17–14.80	11	+
238–254	9.37-10.00	5	+				
253–269	9.96–10.59	6	+				

Finally, install the mandrel into the machine (2, 3, 4, 5, Fig. 3) and clamp the machine into the pipe as shown in Fig. 5.



# 4.4.4. Operating

Once the machine with the attachment is clamped inside the pipe, use the 13 mm combination wrench to rotate the draw nut 1 in such a way to move the cutting edge of the tool outside the flange outer diameter. Then, set the sprocket 2 in the position shown in Fig. 9, and push out both pivots of the tripper blocks 3 to engage them with the attachment. Rotate the spoke handles 4 to the right to set machining depth to not more than 0.5 mm (0.02") from the pipe end, and start the motor.

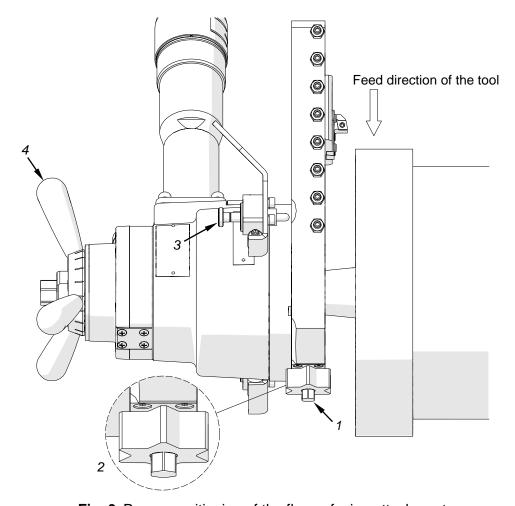


Fig. 9. Proper positioning of the flange facing attachment

Once facing of the flange end is finished, turn off the motor and wait until the rotation stops. Then, rotate the spoke handles to the left to retract the tool from the workpiece. Clean the entire surface of the flange end, and perform several more rotations to improve the finish of the surface with one tripper block engaged (retract the pivot of the second tripper block) and with machining depth not more than 0.25 mm (0.01").



# 4.4.5. Adjusting the slider clearance

Use the 13 mm combination wrench to loosen the lock nuts (1, Fig. 10). Then, use the 5 mm hex wrench to loosen eight screws 2. To access the screws, change the slider position by rotating the draw nut 3 using 13 mm combination wrench.

Next, move the slider to the most outward position and tighten the adjusting screw 4 to gently press the guide to the slider. Moving the slider to the most inward position, tighten the screws 2 lightly to 1.5–2.5 Nm (13–22 in-lbs) and the screws 4 located opposite the current position of the slider. Move the slider through the entire length and if its movement is smooth and uniform, maximally tighten the nuts 1.

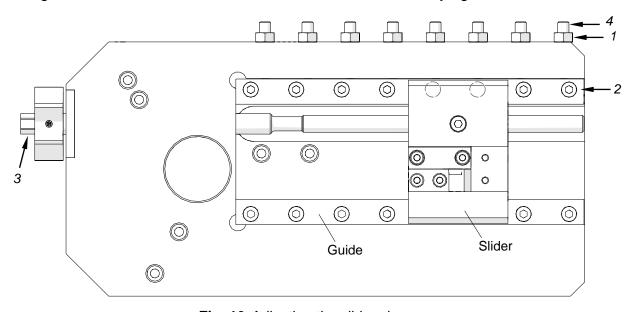


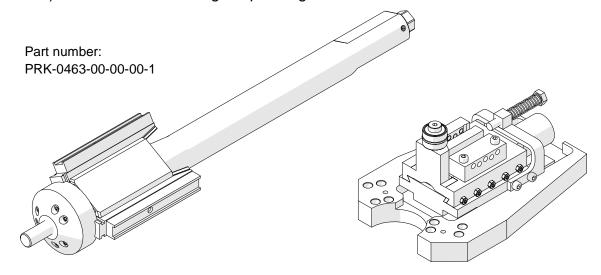
Fig. 10. Adjusting the slider clearance



#### 4.5. Oval attachment

#### 4.5.1. General information

Allows facing and bevelling oval pipes with diameters from 126 to 296 mm (4.96–11.65") with the use of the large expanding mandrel.



# 4.5.2. Equipment included

Equipment of the oval attachment consists of the following elements.

Milling unit for oval pipes (including 0° tool holder; without tool bits)	1 unit
Large expanding mandrel	1 unit
Metal box	1 unit
1/2" ratchet wrench	1 unit
8 mm flat wrench	1 unit
6 mm hex wrench	1 unit
5 mm hex wrench	1 unit
4 mm hex wrench	1 unit
2.5 mm hex wrench	1 unit
Tool container	1 unit



# 4.5.3. Installing

Remove the existing expanding mandrel. To do this, loosen the nut and use the 5 mm hex wrench to loosen the set screw (1, Fig. 3) to at least one turn. Then, rotate the spoke handles to the left to disengage the mandrel from the machine.

Use the same 5 mm hex wrench to unscrew the screws (3, Fig. 2) and remove the existing tool holders.

Then, use eight screws to install the milling unit for oval pipes to the spindle disk (Fig. 11a). Next, install the tool holder using the 5 mm hex wrench (Fig. 11b), and insert a tool bit into the holder according to the rotation direction. Tighten the tool bit with the 4 mm hex wrench.

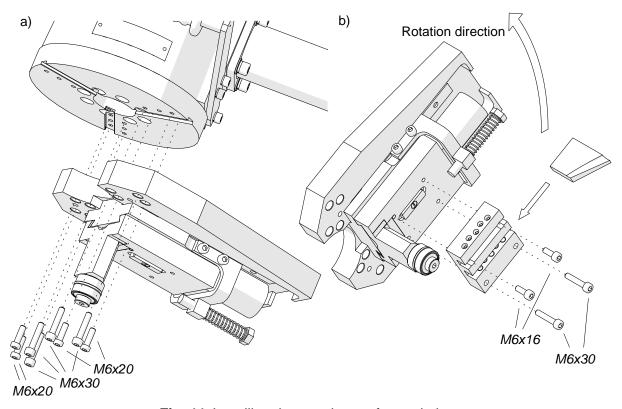


Fig. 11. Installing the attachment for oval pipes

Then, use the following table to select suitable standard jaw blocks and adapters, and screw them to the large expanding mandrel (Fig. 2).



with large mandrel a	nal diameter e expanding and standard blocks [inch]	Jaw block number	Adapter
126–142	4.96–5.59	1	_
142–158	5.59-6.22	2	_
157–173	6.18–6.81	3	_
173–189	6.81–7.44	4	-
188–204	7.40-8.03	5	-
203–219	7.99–8.62	6	_
219–235	8.62-9.25	2	+
234–250	9.21-9.84	3	+
250–266	9.84–10.47	4	+
265–281	10.43-11.06	5	+
280–296	11.02–11.65	6	+

Finally, install the mandrel into the machine (2, 3, 4, 5, Fig. 3) and clamp the machine into the pipe as shown in Fig. 5.

# 4.5.4. Operating

Once the machine with the attachment is clamped inside the pipe, tighten the bumper screw to immobilize the tool bit holder (1, Fig. 12). Use the 6 mm hex wrench to loosen the guide screws 2. Place the attachment in such a way to bring the roller close to the lowest inside diameter of the pipe (3). Then, tighten the guide screws 2, unscrew the bumper screw (4), and use the 1/2" ratchet wrench to initially tighten the spring 5.

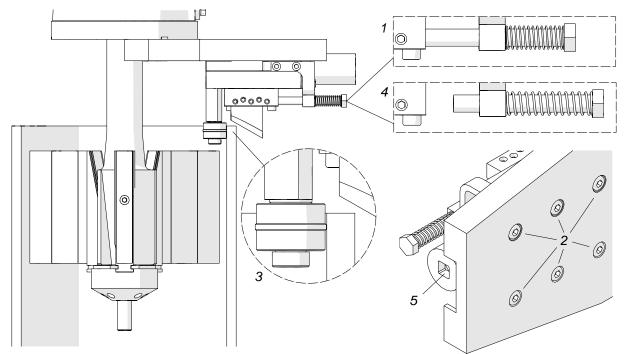


Fig. 12. Proper positioning of the oval attachment

This document is protected by copyrights.

Copying, using, or distributing without permission of PROMOTECH is prohibited.



Start the motor and operate by rotating the spoke handles to the right. If the machining proceeds with difficulties, stop the rotation and tighten the bumper spring *5* more.

Once the pipe end is machined completely, discontinue rotating the spoke handles and allow the spindle to rotate several more rotations to improve the finish of the surface. Then, stop the machine, separate the tool bit(s) from the pipe end, release the clamping, and remove the machine from the pipe.

# 4.5.5. Adjusting the slider clearance

Use the 8 mm flat wrench to loosen the lock nuts (1, Fig. 13) and lightly tighten the screws 2 using the 2.5 mm hex wrench. If, after loosening the screws 3, the movement of the slider is smooth and uniform, tighten the lock nuts 1.

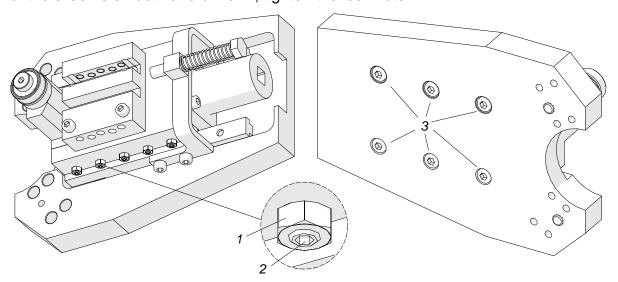


Fig. 13. Adjusting slider clearance



# 5. ADDITIONAL EQUIPMENT AND WEARING PARTS

Part number	Name	
ZST-000021	Air preparation unit (FRL)	
OLJ-000004	Cutting fluid 0.5 kg (1.1 lbs)	
NOZ-000021	45° bevelling tool bit, height 54 mm	
NOZ-000015	37.5° bevelling tool bit, height 54 mm	
NOZ-000020	37.5° bevelling tool bit, height 44 mm	
NOZ-000018	30° bevelling tool bit, height 44 mm	
NOZ-000019	30° bevelling tool bit, height 37 mm	
NOZ-000017	0° facing tool bit, height 30 mm	
NOZ-000026	45° internal bevelling tool bit, height 54 mm	
NOZ-000024	37.5° internal bevelling tool bit, height 54 mm	
NOZ-000025	30° internal bevelling tool bit, height 54 mm	
NOZ-000023	30° internal bevelling tool bit, height 44 mm	
NOZ-000001	15° internal calibration tool bit, height 55 mm	
NOZ-000016	20° J-bevelling tool bit, height 50 mm, radius 8 mm	
NOZ-000022	15° J-bevelling tool bit, height 50 mm, radius 2 mm	
IMK-0463-02-10-00-0	30° tool holder for oval attachment	



#### 6. DECLARATIONS OF CONFORMITY

# EC Declaration of Conformity

We

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

declare with full responsibility that product:

# PRO 10 PB PIPE BEVELLING MACHINE

which the declaration applies to is in accordance with the following standards:

- EN ISO 12100-1
- EN ISO 12100-2

and satisfies safety regulations of the guideline 2006/42/EC.

Bialystok, 9 May 2013

Marek Siergiej

Chairman



# EC Declaration of Conformity

We

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

declare with full responsibility that product:

# PRO 10 PBE PIPE BEVELLING MACHINE

which the declaration applies to is in accordance with the following standards:

- EN 60745-1
- EN 55014
- EN ISO 12100-1
- EN ISO 12100-2

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

Bialystok, 9 May 2013

Marek Siergiej Chairman



# 7. QUALITY CERTIFICATE

# Machine control card PRO 10 PB (PBE) PIPE BEVELLING MACHINE

Serial number	
Quality control	
Adjustments, inspections	
Quality control	

# 8. WARRANTY CARD

WARRANTY CARD No
in the name of Manufacturer warrants the PRO 10 PB (PBE) Pipe Bevelling Machine to be free of defects in material and workmanship under normal use for a period of 12 months from the date of sale.  This warranty does not cover tool bits as well as damage or wear that arise from misuse, accident, tempering, or any other causes not related to defects in workmanship or material.
Date of production
Serial number
Date of sale
Signature of seller

1.06 / 8 June 2015

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