

ROTHENBERGER

ROWELD P 160 Saniline

ROWELD P 160 Saniline



DE Bedienungsanleitung
EN Instructions for use
FR Instruction d'utilisation
ES Instrucciones de uso
IT Istruzioni d'uso
NL Gebruiksaanwijzing
PT Instruções de serviço
DA Brugsanvisning
SV Bruksanvisning
NO Bruksanvisning

FI Käyttöohje
PL Instrukcja obsługi
CS Návod k používání
HU Kezelési útmutató
ET Kasutusjuhend läbi
LT Naudojimo instrukcija
LV Lietošanas pamācība
RU Инструкция по использованию
AR دليل الاستخدام



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A Overview

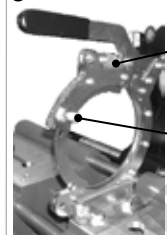
2



HE 200mm

230V no.: 055316H
 swiss no.: 055316Z
 110-120V no.: 055851H

8



8.1

8.2

1

7

10

4

3

Saniline BM+trimmer

230V no.: 1200002852
 swiss no.: 1200002853
 110-120V no.: 1200002854
 230V no.: 1200002830
 (Special Edition)



5

6

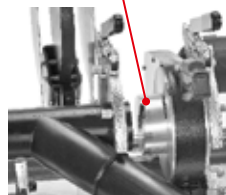
11

40+50+63+75+90+
 110+160mm

no.: 1000002964 Set SANILINE P160 ROCASE 40-160mm, 230V
 no.: 1000002968 Set SANILINE P160 ROCASE 40-160mm, 110-120V
 no.: 1000002967 Set SANILINE P160 ROCASE 40-160 incl 56mm 230V
 no.: 54004 Set SANILINE P160 Special Edition 40-160mm, 230V
 no.: 054000Z Set SANILINE P160, 40-160mm, 230V swiss

Optional $\varnothing 40 - 75$ mm:

54040



Special Edition

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Markings in this document:



Markings in this document!

This sign warns against the danger of personal injuries.



Caution!

This sign warns against the danger of property damage and damage to the environment.



Call for action



1 Safety Notes

1.1 Intended use

ROWELD P 160 Saniline must be used only for producing welded joints on PE - PP and PVDF tubes according to the technical data. The user bears sole responsibility for any damage caused by improper use.

1.2 General Power Tool Safety Warnings



WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool.

Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your electrically-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors only, use an extension cords suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A momentary lack of attention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
 - f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
 - g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
 - h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
- 4) Power tool use and care**
- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
 - b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
 - c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
 - d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
 - e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
 - f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
 - g) **Use the power tool, accessories and tool bits etc., in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
 - h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- 5) Service**
- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

2 Technical Data

Welding range Ø (mm).....	40-160
Pipe capacity	SDR series see welding parameter book
Max. traverse path (mm).....	130

Trimmer:

Power supply	230 V a.c.....110-120 V a.c.
	50 Hz50/60 Hz
	5,0 A7,0 A
	1050 W.....750 W
Rotary speed (min ⁻¹)	0-1200.....0-660
Idle running speed (min ⁻¹) milling disc	0-265.....0-146
Noise pressure level dB (A) L _{pA} K _{pA}	93 3.....82 3

Sound power level dB (A) L_{WA} | K_{WA} 104 | 393 | 3

Heating element:

Power supply 230 V a.c.....110-120 V a.c.
50/60 Hz.....50/60 Hz
800 W800 W

Heating plate diameter (mm)..... 200.....200

Weight (kg) 3,14.....3,14

Weights:

Complete machine (kg)..... 34,0.....34,0

P160 Saniline with skid frame (kg)..... 48,6.....48,6

Dimensions: (L x W x H):

P160 Saniline swivelled in (mm) 715 x 430 x 735

swivelled out (work position) (mm)..... 715 x 680 x 1180

The noise level during operation can exceed 85 dB (A). Wear hearing protection!

3 Function of the Unit

3.1 Overview (A)

1	Trimmer unit	7	Safety catch
2	Heating element	8	Main clamp
3	Machine housing	8.1	Adjusting nut
4	Movable table	8.2	Tensioning screw
5	Clamping lever	10	Support brackets
6	Grip bar	11	Knob (not for no. 54004)

Welded joints for house installations, chimney renovations and roof drainage systems made of PE, PVDF and PP pipes with outer diameters of 40 - 160mm can be safely produced with the machine.

Depending on the version clamping elements can be used instead of the support forks for the exterior clamping positions. Threads are provided for this purpose in the machine base and in the movable table.

3.2 Operating instructions



In accordance with national or EU ordinances and guidelines, e. g. DVS 2212, Section I, only duly qualified and authorized personnel are allowed to operate the ROWELD welding machines!



Only trained and authorized welders are allowed to operate the machine!

3.2.1 Putting into operation



Please read through the operating instructions and safety instructions attentively before you put the butt fusion welding machine into operation!



Do not use the heating element in explosive environments or bring it into contact with easily flammable materials!

- Put the machine on a level, solid surface.
- Pull the knob (11), swing the machine upward, and allow the locking bolts to click in (not for no. 54004).



Make sure that both bolts are engaged in the holes in the frame!

- Pull the trimmer lock (7) to the front and swivel the trimmer (1) to the back.
- Swivel heating element (2) to the back.

- Connect power plug of trimmer unit (1) and heating element (2) to the power supply stated on the type plate.

The red "Stand by" diode on the heating element lights up, which means: voltage is being applied. Switch on the heating element on the hand grip using the large press-button (lights up green) and set the desired temperature using the "+" or "-" button (160°C to 285°C / 320°F to 545°F).

Heating is displayed on the hand grip by the yellow diode. Horizontal bars also appear on the temperature indicator. The yellow diode goes out shortly before reaching the set nominal temperature (tolerance +/-3°C / 5.4°F) and the green one lights up. The heating element is usable after a further 10 minutes. Note: upon first reaching the nominal temperature the set value can be exceeded for short time.

Check the temperature using an external temperature measuring instrument. If there are deviations it means that the heating element must be re-calibrated: press the "+" and "-" button simultaneously and then set the difference using the "+" or "-" button.

If "Er1" appears this means the electronics are defective. For "Er2" the resistance thermometer is either defective or not connected. Send the device to an authorized ROTHENBERGER specialist workshop.



Very hot – Do not touch! The heating element can reach a temperature of approx. 290°C / 554°F!

3.2.2 Measures for preparing welding

- For pipes which are smaller than the maximum diameter of 160 mm to be welded the clamping inserts / bracket of the corresponding diameter are to be inserted in the main clamps.



Be sure to use the correct reduction clamping inserts! The upper reduction clamping inserts, or the bracket + lower reduction clamping inserts + support fork inserts, must match!

- Open the clamping plates (8) and swing them to the rear position. Press the upper reducing insert against the rear stop and tighten the tensioning screw (8.2).
- Insert the lower reduction.
- Supports bracket inserts are to be inserted in the support brackets (10) and fastened with the knurled screws.
- Insert the plastic pipes or fittings to be welded into the clamps.
- Put the support brackets (10) under the pipe or fitting, loosen knurled head screw and move the support bracket accordingly, turn if required and tighten knurled head screw.



For straight pipes to be welded align the support brackets with the front surface parallel to the centre of the groove in the tables!

- Close the clamping plates (8). Using the adjusting nut (8.1) adjust the tension and bring the handle to the end position until the maximum force is reached.
- Check whether the workpieces are tight in the clamping tool by moving the workpieces together. When applied max. welding pressure must not slip through pipes! Thus, a successful welding process it is ensured.
- Also check whether the heating element has reached operating temperature. Heating is ended when the yellow diode goes off and the green diode lights.



To guarantee even distribution of heat over the entire surface of the heating plate, it is required to wait a period of approx. 10 minutes after the green diode lights up (according to DVS). You must check the temperature with an appropriate temperature measurement device!

- Swing the trimmer (1) between the pieces of pipe until the ratchet pawl (7) snaps in and turn on with the handle.



Risk of injury! Do not grasp into the running knife while the trimmer is put into operation. Operate trimmer only in swiveled in state (work position) and swivel back again afterwards. The operativeness of the safety switch in the trimmer must be guaranteed at all times to prevent unintentional starting outside the work position!



- With the grip bar (6) move the ends of the workpieces carefully against the rotating knives of the trimmer disks.



An excessively high milling pressure can lead to overheating and damage to the miller drive. When the milling drive is overloaded or at rest, raise the machine and reduce the pressure!

For one-sided milling, turn the stop on the underside of the milling machine to the side that is NOT to be worked on.

- After the front sides are trimmed flat, which can be recognized by a uniform and unbroken chip, slowly move the pipes ends apart. Unlock the trimmer (1) by pulling out the ring (7) and swivel it.
- Move workpieces together and check whether the welded surfaces are flat. If this is not the case, trimming must be repeated.

The axial offset between the workpieces must not be greater than 10% of the wall thickness and the gap between the flat surfaces must not be greater than 0.5 mm (according to DVS). If this is not the case, adjust with the help of the clamping screws and pipe supports and repeat trimming.



The trimmed surfaces prepared for welding must not be touched with the hands and must be kept free of dirt!

3.2.3 Welding



Risk of crushing! Always maintain a safe distance from the machine when moving clamping tools and pipes together! Never reach into the working area!

- Swivel the heating element (2) between the two workpieces.
- Bring the pipe ends together, put force to the grip bar (6) and stop the driveshaft by pulling the clamping lever (5).
- As soon as the required bead height is reached evenly over the entire circumference at the pipe ends, disengage the clamping lever (5), reduce the force to the corresponding preheating force (near 0) and screw up the clamping lever (5) tightly again. It must be ensured that the workpiece ends abut evenly to the heating plate.
- After the preheating time is over, disengage clamping lever (5) move workpieces apart, swivel out the heating element (2) and move the workpiece ends together again. While doing this, increase the corresponding joining force as linearly as possible until the nominal force is reached (see the accompanying book for welding parameters) and pull the clamping lever (5). The joining force must be maintained during the entire cooling period.
- At the end of the cooling period, disengage the clamping lever (5) and release the spring via the grip bar. Unclamp and take out the welded tube sections.

All welding parameters can be found in the enclosed welding tables.

3.2.4 Putting out of operation

- Unplug the trimmer and heating element.
- Swivel trimmer into the space between the main clamps.
- Wind up flex.
- Insert the heating element into the mounting provided in the underframe.



The hotplate must be cooled off!

- Pull the knob (11) and swing the machine downward until the locking bolts have clicked in (not for no. 54004).

3.3 General requirements

As weather and ambient conditions can seriously effect welding procedures and joints, it is essential to duly observe national welding guidelines and ordinances, e. g. DVS Guideline 2207, Sections 1, 11 and 15.

Welding requires continuous and due supervision and monitoring!

3.4 Important information on welding parameters

For welding parameters such as temperature, pressure and time, consult your national welding guidelines and ordinances, e. g. DVS Guideline 2207, Sections 1, 11 and 15.

Ordering: DVS Media GmbH, Aachener Str. 172, 40223 Düsseldorf
Postfach 10 19 65, 40010 Düsseldorf, Tel.: +49 (0) 211 / 15 91 – 0
Email: media@dvs-hg.de internet: www.dvs-media.info

In the event of doubt, consult the pipe manufacturer for material-specific welding parameters. The welding parameters specified in the welding tables are strictly reference values. ROTHENBERGER cannot assume any liability for their accuracy or completeness!

4 Care and Maintenance

To ensure that the welding machine functions properly, observe the following maintenance recommendations:

- Keep the guide rods for the skids or for the heating element holder and milling unit free of dirt.
- The electric drives of the trimmer and heating element must be operated only with the voltage stated on the type plate.
- To achieve perfect welding results, it is essential to keep the heating plate clean. If the surface is damaged or shows signs of erosion, the surface must be recoated or replaced. Material residues on the heating plate surface reduces the non-sticking properties of the coating. Remove all residues with non-linting paper and detergent with one Ethanol content >99.8% (according to DVS 2207) (heating plate must be cool!).
- The trimmer is equipped with two double-sided ground knives. When cutting capacity starts decreasing, the knives can be turned over or replaced by new ones.
- It must always be ensured that the pipe or workpiece ends to be machined, especially the face surfaces, are free of soiling because otherwise the service life of the knives will be shortened.



It is recommendable to have repairs done only by a service workshop or by the manufacturer!

5 Accessories

You can find suitable accessories in the main catalog or at www.rothenberger.com

6 Customer service

The ROTHENBERGER service locations are available to help you (see listing in catalog or online) and replacement parts and service are also available through these same service locations. Order your accessories and spare parts from your specialist retailer or using RO SERVICE+ online: ☎ + 49 (0) 61 95/ 800 8200 📠 + 49 (0) 61 95/ 800 7491 ✉ service@rothenberger.com - www.rothenberger.com

7 Disposal

Components of the unit are recyclable material and should be put to recycling. For this purpose registered and certified recycling companies are available. For an environmental friendly disposal of the non-recyclable parts (e.g. electronic waste) please contact your local waste disposal authority.

For EU countries only:



Do not dispose electric tools with domestic waste. In accordance with the European Directive 2012/19/EU the disposal of electrical and electronic equipment and its implementation as national law, electric tools that are no longer serviceable must be collected separately and utilised for environmentally compatible recycling.