


ROTHENBERGER

ROBEND® 4000

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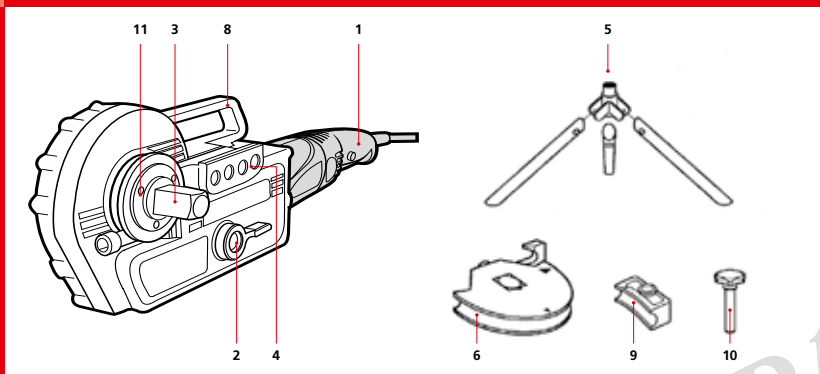



Bedienungsanleitung
Instructions for use
Instruction d'utilisation
Instrucciones de uso
Istruzioni d'uso
Gebruiksaanwijzing
Instruções de serviço
Brugsanvisning
Bruksanvisning
INSTRUKCJA OBSŁUGI

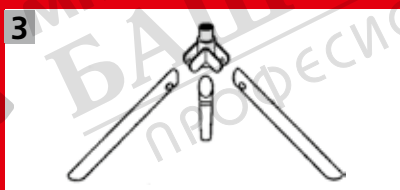
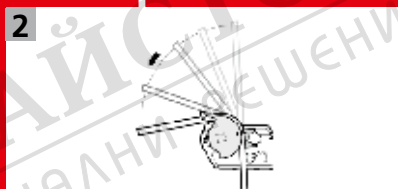
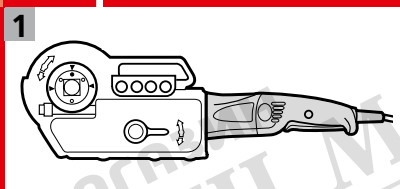


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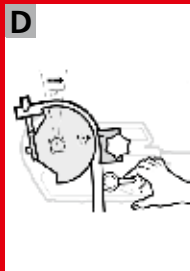
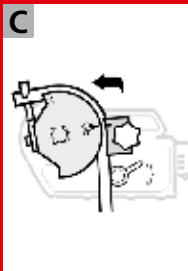
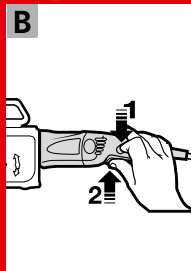
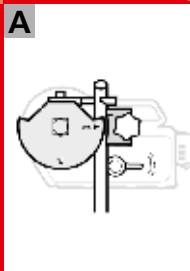
A Overview



B Preparation for start-up



C Starting-up





Intro

DEUTSCH Bedienungsanleitung bitte lesen und aufbewahren! Nicht wegwerfen! Bei Schäden durch Bedienungsfehler erlischt die Garantie! Technische Änderungen vorbehalten!	Seite 5
ENGLISH Please read and retain these directions for use. Do not throw them away! The warranty does not cover damage caused by incorrect use of the equipment! Subject to technical modifications!	Page 8
FRANÇAIS Lire attentivement le mode d'emploi et le ranger à un endroit sûr! Ne pas le jeter ! La garantie est annulée lors de dommages dus à une manipulation erronée ! Sous réserve de modifications techniques!	Page 11
ESPAÑOL - País de origen! ¡Por favor, lea y conserve el manual de instrucciones! ¡No lo tire! ¡En caso de daños por errores de manejo, la garantía queda sin validez! Modificaciones técnicas reservadas!	Página 14
ITALIANO Per favore leggere e conservare le istruzioni per l'uso! Non gettarle via! In caso di danni dovuti ad errori nell'uso, la garanzia si estingue! Ci si riservano modifiche tecniche!	Pagina 17
NEDERLANDS Lees de handleiding zorgvuldig door en bewaar haar goed! Niet weggooien! Bij schade door bedieningsfouten komt de garantieverlening te vervallen! Technische wijzigingen voorbehouden!	Bladzijde 20
PORTUGUES Queiram ler e guardar o manual de instruções! Não deitar fora! Em caso de avarias por utilização incorrecta, extingue-se a garantia! Reservado o direito de alterações técnicas!	Pagina 23
DANSK Læs betjeningsvejledningen, og gem den til senere brug! Smid den ikke ud! Skader, som måtte opstå som følge af betjeningsfejl, medfører, at garantien mister sin gyldighed! Ret til tekniske ændringer forbeholdes!	Side 26
SVENSKA Läs igenom bruksanvisningen och förvara den väl! Kasta inte bort den! Garantin upphör om apparaten har använts eller betjänats på ett felaktigt sätt! Med reservation för tekniska ändringar!	Sida 29
SUOMI Lue ja säilytä tämä käyttöohje! Älä heitä pois! Takuu ei kata käyttövirheistä aiheutuvia vahinkoja! Oikeudet teknisiin muutoksiin pidätetään!	Sivulta 32
ΕΛΛΗΝΙΚΑ Οδηγίες χειρισμού παρακαλείσθε να τις διαβάσετε και να τις φυλάσσετε! Μην τις τρετάξετε! Σε ζημιές από σφάλματα χειρισμού τταμει να ισχύει η εγγύη! Με επιφύλαξη για τεχνικές αλλαγές!	Σελίδα 35
РУССКИЙ Прочтите инструкцию по эксплуатации и сохраняйте её для дальнейшего использования! В случае поломки инструмента из-за несоблюдения инструкции клиент теряет право на обслуживание по гарантии! Возможны технические изменения!	Страница 38
POLSKI Przeczytaj instrukcję obsługi i zachowaj do wglądu. Nie wyrzucaj! Gwarancja nie uwzględnia usterek spowodowanych wadliwą obsługą. Zmiany techniczne zastrzeżone!	Strona 41





1. Technical characteristics

Bending capacity:.....	12 – 35 mm
Bending angle:.....	0° - 180°
Voltage:	230 V 50/60 Hz
	100 V 50/60 Hz
	110 V 50/60 Hz
Absorbed power:.....	1010 W (900W)
On-switch:.....	Non-blocking
Machine weight:.....	13 kg.
Machine dimensions:	590 x 145 x 215
Complete set weight (12,15,18 and 22 mm):....	24 kg.
Box dimensions:	660 x 430 x 200 mm
Noise level:	100 dBA
Lp:.....	87 db
Vibration level:.....	5,9 m/s ²

2. Machine components (See figure A)

1. Motor
2. Reverse lever
3. Handle
4. Bolt housing
5. Tripod
6. Former
7. Former hook
8. Former fastening shaft
9. Slide
10. Slide fastening bolt
11. Series bending scale



3. Capacity

Hard and soft Cu-Al DIN 1786 Øs 12 a 35 mm: 1,2 mm pared.
Hard and soft steel DIN 2391, DIN 2393, DIN 2394; Øs 12 a 28 mm x 2,5.
Steel DIN 2440 1/4" (14), 3/8" (18), 1/2 " (22), 3/4 " (28).
INOX AISI 304-316 espesor hasta 1,5 mm Øs 12 a 28 mm
Conduit: 16-20-25-32-35 mm

4. Preparation for start-up

1. Working position (See figure B.1)

The position shown in the sketch would be ideal for comfort and safety during the entire bending process.

2. Working area (See figure B.2)

Before start, the bending area should be clear from any element that may interfere in the bending process.

3. Use of extension cords

The extension cable should be as thick and short as possible. It should handle more than 15 Amp., and never be more than 30 m. in length.

4. Check the state of the on/off switch

Make sure that the on/off switch unlocks automatically when not pressed.

5. Use of tripod (optional) (See figure B.3)

The sketch shows assembly and coupling of tripod to bending machine.

6. Device for series bending (See figure B.4)

The unit provides a device for setting the bending angle automatically from 0° to 180°. To operate,





loosen the graduated scale surrounding the former shaft and align the desired angle with the inner mark as shown. Once the angle has been selected, tighten the screws and proceed according to the "start-up" chapter.

7. Keepaway from moving parts

Make sure that your hands are not in contact with moving parts of the machine during the bending process.

5. Starting up

Before carrying out any operation with this unit, first read the general safety instructions and preparation for start-up.



Important: For all bending applications, carefully follow the steps described below


1. Select the tube or pipe to be bent. Choose the relevant bending former and shoe suited to the tubes size. Ensure that the ROBEND® 4000 is set in the start position by starting the motor with the direction lever in the reserve position until it triggers off and moves to the neutral position.

2. Place the bending former onto the centrepin. Lay the tube into the bending former and secure it into the hook.





Important: Ensure that the tubes is fully inserted into the hook and has contact with the whole hook surface. Secure the bending shoe with the fastening bolt into the appropriate housing.

3. Ensure you are at the correct starting position by checking the "0" mark on the bending former is lined up with the centre of the bending shoe (see figure C.A).

4. To start bending, shift the direction lever to the working position and push the power switch . The bending former will start to rotate. Maintain pressure on the switch until your chosen angle of bend (marked on the bending former) (see figure C.B) lines up with the mark on the bending shoe, and then release the switch (see figure C.C).

5. The ROBEND® 4000 is equipped with a device that allows you to preset the bending angle between 0 to 180 degrees which is ideal for repeat bends. See "preparation for start up" chapter.

6. Once the bend has been produced and the power switch has been released, shift the direction lever back into the reverse position . Now, briefly push the power switch to loosen the hold on the tube. Once the tube has released you can remove the fastening bolt, then the bending shoe and finally take the finished bend out of the bending former.

7. In order to make the ROBEND® 4000 ready for the next bending operation, start the motor with the direction lever in the reverse position  until it triggers off and moves into the neutral position.

6. Care and maintenance

Before carrying out any job on the machine, disconnect the plug from the mains outlet.

1. Cable and plug

Both the cable and plug should be in optimum condition. Check them at regular intervals.

2. ON switch

Check that the machine switch unblocks automatically when finger pressure is released. In case of any anomaly, replace immediately with a new one.

3. Brushes

Check frequently for brush wear and perfect contact with rotor. Change brushes when their lengths is 1/3 of original length. Use original ROTHENBERGER brushes.





4. Motor and rotor

The carbon dust accumulated in the motor and brush housing should be removed every 100 hours. The motor's rotor should be permanently clean with a uniform surface (light bronze colour).

5. Gear box

Change grease every 500 operating hours. After dismantling the machine, oil all mechanisms to eliminate old grease. Remove parts with dry compressed air and apply new grease with clean hands. Do not use any dissolvents. Approximately 300 grs. of grease is needed for a correct lubrication. An excessive amount of grease is not recommended as it can increase the temperature of the machine. Grease type: LGMT2 by SKF or similar. We recommend that this operation be carried out by an authorized after-sales service.

6. Dismounting the gear box

Before dismantling the cover of the gear box, never introduce sharp objects such as tips, screwdrivers, etc. between the body and cover's connecting faces. The correct procedure is to tap the front of the octagon gently with a plastic hammer.

7. Machine maintenance and repair should be done by a specialist

All repairs should be carried out by a specialist and only original parts should be used.

7. Diagnosis of faults

Before carrying out any inspection of the ROBEND® 4000, check that the plug is disconnected from the power supply.



Important: should any form of service/repair other than the basic points detailed below be required, please contact your nearest technical service centre.

A. The bending former stops rotation during bending,

while the motor is still running. The direction lever is not in the right position. There is a transmission problem - contact your technical service centre.

B. Bends are not round/circular

Bending former and/or shoe are not suited to the tube size. Bending former and/or shoe are worn out. Tube quality is suspect.

C. The ROBEND® 4000 does not start

Check the wiring in the plug. Carbon brushes may be worn out and need replacing.

D. Pre-set trigger does not function

Screws are not tightened properly.



When its useful life is over, do not dispose of th machine into the domestic waste, please send it to authorised places for recycling.