Machine for chamfering edges of pipes and tubes

NKO MACHINES

C-Biter, model E

Instructions for use and maintenance

for models C-biter 63E / 76E / 89E / 114E

CE

Contents:

1.General information

1.1. Introduction

Thank you for purchasing one of our machines. We hope you will be completely satisfied with it.

This manual contains all the instructions for installing, adjusting, operating, and maintaining the machine.
C-biter model series E in accordance with applicable safety standards.

The information and data in this manual are subject to change as a result of further improvements to the machines. For the avoidance of doubt, please contact N.KO if you find any discrepancies.

Never perform any operations on the machine before you have read and understood the instructions in the manual. A large proportion of accidents that occur in the workplace are caused by failure to follow the instructions and recommendations contained in the manual.

The graphic symbols in this manual are used to highlight important information concerning the safety and operation of the machine.

Caution:
Essential information for the personal safety of the operator.

Important:
Instructions that must be followed to ensure proper operation of the machine.

1.2. Testing

The edge beveling machine is tested in our technical testing laboratory.
During this test, the correct functioning of the machine is tested.

1.3. Warranty

The seller provides a warranty for the C-biter chamfering system, model series E, that the goods will be free of material and manufacturing defects for a period of 1 year from the date of delivery.

A warranty for the proper functioning of the goods and the materials used is provided for a period of 1 year from the date of delivery of the goods.

The seller undertakes to ensure the removal of any defects covered by the warranty free of charge and without undue delay so that the buyer can use the goods properly. If the buyer exercises their rights arising from liability for defects not covered by the warranty, they shall reimburse the seller for the costs associated with this.

The warranty period shall not run from the date on which the buyer reported to the seller the existence of a defect covered by the warranty and for which the buyer cannot use the goods and exercised his rights arising from liability for defects under the warranty provided, until the date of its removal by the seller.

The warranty does not cover natural and normal wear and tear of the goods and defects caused by improper use of the goods contrary to the training provided or the instructions for use. Furthermore, the warranty does not

does not apply to defects caused by overloading the machine, nor to defects caused by unprofessional intervention in the machine or unprofessional repair or modification of the machine. Improper intervention, repair, or modification means any intervention, repair, or modification that was performed contrary to the training and documentation provided, or was performed by a person other than the seller or a person authorized or approved by the seller.

Rights arising from liability for defects under the warranty must be exercised with the seller without undue delay after the buyer discovers the defect, but no later than the end of the warranty period, otherwise these rights shall expire.

To exercise rights arising from liability for defects under the warranty provided, it is necessary to present the warranty card or proof of purchase. Otherwise, these rights cannot be granted to the buyer.

The seller's liability for defects covered by the warranty does not arise if these defects were caused by external events. External events are understood to mean, in particular, natural disasters, force majeure, or the behavior of third parties.

N.KO considers the warranty invalid in the following cases:
- improper use of the machine
- use contrary to national or international standards
- incorrect installation of the machine
- defective power supply
- serious deficiencies and errors in maintenance
- unauthorized modifications or interventions
- use of non-original or incorrect spare parts and accessories for the model in question
- complete or partial failure to follow the instructions in the manual
- exceptional events, natural disasters, or other events.

1.3. Identification data

The identification data of the edge beveling machine is provided on the aluminum CE label attached to the machine body.

1.4. Reference standards (CE declaration of conformity)

EU Prohlášení o shodě

(EU Declaration of Conformity)

Výrobce / Manufacturer:

N.KO spol. s r.o.
Adresa: Táborská 398/22, 29301 Mladá Boleslav, Czech Republic
IČ: 26161109

Výrobek:

Název stroje / Model: Mobilní obráběcí stroj pro úkosování trubek
Typ / Model: C-biter modelová řada E
Výrobní číslo: viz výrobní štítek stroje

Prohlašujeme, že uvedený výrobek je v souladu s ustanoveními následujících směrnic EU:

- 2006/42/ES – Směrnice o strojních zařízeních (Machinery Directive)
- 2014/30/EU – Směrnice o elektromagnetické kompatibilitě (EMC Directive)
- 2014/35/EU – Směrnice o nízkém napětí (Low Voltage Directive)

Harmonizované normy:

- EN ISO 12100:2010 – Bezpečnost strojních zařízení, obecné zásady návrhu
- EN 60204-1:2018 – Elektrická zařízení strojů
- EN ISO 13849-1:2015 – Bezpečnost strojních zařízení – Řídicí systémy související s bezpečností
- EN 55014-1 a EN 55014-2 – EMC normy pro stroje s elektromotorem

Místo a datum vydání:

Mladá Boleslav 12. 8. 2025

Jméno a funkce odpovědné osoby:

Milan Richtr CEO

Podpis: _____

2. SAFETY

2.1 Safety recommendations

Caution

Read the following instructions carefully to prevent injury to persons or damage to property.

- Never attempt to operate the machine until you have thoroughly familiarized yourself with how it works. If you still have doubts after carefully and thoroughly reading this manual, contact N.KO.

- Ensure that all technical personnel who are to use and maintain the machine are sufficiently familiar with all relevant safety recommendations.

- The machine must only be transported and installed by designated personnel in accordance with the instructions in this manual.

- Before starting the machine, the operator must ensure that all safety devices are functional and that all safety guards are in place.

- Never use the machine for purposes other than those specified in the manual. Never process products or workpieces other than those specified.

- Contact N.KO before using the machine for purposes other than those specified and request permission.

- The voltage values used to power the machine are dangerous: make sure that all connections are made correctly. Never perform maintenance or replace parts on the machine when it is connected to a power source, and never make any connections to electrical connections.

- Replace parts considered defective with others recommended by the manufacturer. Never replace with anything other than original spare parts.

- Never wear clothing or jewelry that could get caught in moving parts. It is advisable to wear safety clothing: shoes with non-slip soles, ear protection, and safety glasses.

Important:

If any faults occur during the machine's service life that cannot be repaired according to this manual, it is necessary to contact your supplier or the manufacturer, N.KO, so that the problem can be resolved as quickly as possible.

2.2. Safety stickers

Safety labels with warnings for operator protection may be installed on the edge beveling machine.

Do not remove any stickers from the machine.

2.3. Operator qualification and protection

The employer is obliged to inform the operator about safety standards and, in addition, to ensure that they are observed and to make sure that the work area is sufficiently large and well lit. The machine may only be operated and used by a designated person, i.e. the machine operator.

The term "operator" refers to the person who installs, operates, adjusts, maintains, cleans, and repairs the machine. This person must be fully familiar with this manual and trained by the supplier. If this is not the case, ask your supplier to remedy the situation. Otherwise, the manufacturer disclaims any liability for damage or injury.

⚠ **Caution:**
Before starting work, make sure that the operator has read and understood the contents of this user manual.

⚠ **Caution:**
The operator must always:

- Ensure that all safety guards are in place and that safety devices are functioning before starting the machine.
- Avoid wearing clothing or jewelry that could get caught in moving parts.
- Wear approved safety clothing, such as shoes with non-slip soles, ear protectors, and safety glasses.
- Apply safety standards, ensure that they are always followed, and if in doubt, refer to this manual again.
- Contact the machine supplier if you cannot remedy faults that cause the machine to malfunction, if the faults relate to faulty parts or irregularities in operation.

2.4. Residual risks

The machine is manufactured with an emphasis on operator safety.

However, there is one remaining risk:

As mentioned above, the work zone is protected as much as possible, but it must remain partially open so that the machining process can be monitored.

It is therefore possible that the operator could insert their fingers into this zone, where both the cutting tool and the workpiece holder are located.

⚠ **Caution:**
Always keep your hands and other parts of your body as far away from the cutting zone as possible.

⚠ **Caution:**
Always apply the safety regulations contained in the manual and ensure that they are observed and that all remaining risks are eliminated.

3. TECHNICAL SPECIFICATIONS

3.1. Available versions of the C-biter machine E model series

All versions of the C-biter E model series have certain features in common:

- They are powered by a single-phase electric motor with a voltage of 230V or 120V (check the voltage on the nameplate).
- The cutting tool is equipped with a machine feed.
- The machine clamping is manual, outside the tube.

Model	Working range ID - OD:	Maximum wall thickness	Tool feed	Motor power	Machine weight
C-biter 63E	32 - 63mm. (1.25" - 2.48")	12	20	1300	9 kg (20 lb)
C-biter 76E	42 - 76 mm (1.65" - 2.99")	12	20	1300	10 kg (22 lb)
C-biter 89E	63 - 89 mm (2.67" - 3.50")	12	20	1300	14 kg
C-biter 114E	76 - 114 mm (2.99" - 4.48")	12	20	1300	15 kg

Important:
The dimensions of the machines and lists of spare parts can be found in the technical data sheet that was delivered to you with the machine. If not, contact your supplier and request it.

3.2. Machine description

The C-biter model E series pipe and tube edge machining machine is designed for chamfering and trimming pipes, tubes, and bars made of structural and stainless steels.

One of its main features is that it is portable and can machine both pipes and solid bars. The machine is equipped with a powerful motor, a robust clamping bracket, and a cutting tool holder. The C-biter E series machine is designed for use directly on machined pipes and rods.

The C-biter E series machine consists of an external drive, a clamping bracket, a cutting tool holder, and other accessories.

The C-biter model series E chamfering machine is reliable and requires only minimal maintenance.

Fig. 3.2.1

A. Clamping screw

B Lower fixed jaw

C. Cutting tool clamping screws

D. Cutting tool holder

E. Bed for interchangeable jaw

F. Automatic feed activation

G. Handle

H Gear selection (sealed and intentionally non-functional on most C-biter machines)

I Electronic control

J Right-left operation (sealed and intentionally non-functional on most C-biter

K Machine lock when switched on

L Main switch - trigger

The appearance of the machine and the position of the controls may vary slightly from type to type. However, they are easily recognizable and their placement is logical and intuitive.

3.3. Noise level

The machine has been designed and manufactured to minimize noise emissions.
Measurements taken from the operator's position while the machine is running in automatic cycle mode yielded the following values:
- during cutting **74.9 dB**
- during operation without load **64.5 dB**

3.4. Working environment conditions

The environment in which the machine operates must comply with the following values:

Temperature: 0º C - 50º C (32º F - 122º F)
Humidity 10% - 90% (non-condensing)

The machine must be placed in a covered location and must not be exposed to rain.

Working conditions other than those listed above could cause serious damage to the machine or injury (especially from electric shock).

When the machine is not in use, it can be stored in a location where the temperature fluctuates between:
-10º C and 70º C (14º F - 158º F)
All other values remain unchanged.

4. INSTALLATION

4.1 Transport and lifting

Important:
The activities described in this section must only be performed by qualified personnel.

When the machine is delivered to its destination, make sure (in the presence of the transport company) that it complies with the specifications in the order and that it has not suffered any damage during transport. Immediately inform the supplier and the transport company in detail if damage is found or if parts are missing.

The package contains:

- The C-biter model E machine itself
- Set of compensation jaws
- Operating tools
- Cutting tool

Caution:
Follow these instructions to ensure safe handling of the machine:

- The C-biter model series E machine can be handled manually. A handle is installed on the machine for this purpose (item G in Fig. 3.2.1.).

- When using a crane or other handling equipment, observe local safety regulations and use only approved lifting equipment and aids.

- Wear protective clothing such as work gloves, safety goggles, non-slip shoes, and a helmet when handling and using the machine.

- When disposing of additional transport packaging, dispose of it in accordance with the applicable waste disposal laws of the relevant country.

4.2. Installation and connection

Important:
The activities described in this section must only be performed by qualified personnel.

When connecting the machine to the power supply, proceed as follows:

- Check the frequency and voltage values on the motor identification label and compare them with your electrical network at the place of use of the machine.

4.3. Destruction and disposal

When disposing of the C-biter E model series machine, please note that the materials from which it is made are not hazardous and mainly include:

- Painted or plated ferritic steel
- 300/400 series stainless steel
- Plastic materials of various types
- Lubricants
- Electric motor
- Electric cables and wires
- Electrical monitoring and excitation devices.

Follow this procedure:
- Follow the applicable laws of your country relating to occupational safety and waste disposal
- Disconnect the machine from the power supply
- Dismantle the machine and sort the components into groups according to their chemical nature and composition
- Scrap machine parts in accordance with the applicable waste disposal laws in your country.
- Strictly observe applicable occupational safety regulations during the dismantling phases.

5. USE

5.1 Proper use

The C-biter model E series beveling machine has been designed, manufactured, and sold for the purpose of preparing weld surfaces (beveling) of metal components and rolled metals of the following types:
iron, steel, stainless steel, brass, copper, and aluminum.
The maximum dimensions of pipes and wall thicknesses of machined pipes are specified in detail in Chapter 3, Section 3.2 Technical Data.

Any other uses differing from those described above are considered inappropriate. More specifically, it is prohibited to:

- Processing products other than those for which the machine is manufactured and sold.
- Modify the design and operation of the machine.
- Replacing parts with non-original ones.
- Modifying electrical connections and thereby bypassing integrated safety devices.
- Removing or modifying protective covers.
- Use the machine in places where the environment is aggressive and where there is a risk of corrosion of components.

Caution:
It is strictly forbidden to chamfer edges on materials other than those specified, as their processing could pose a risk to the operator and damage the machine.

Before making any modifications, it is necessary to contact N.KO for approval. Otherwise, N.KO declines all responsibility for damage to the machine or injury to the operator.

5.2 Preliminary settings

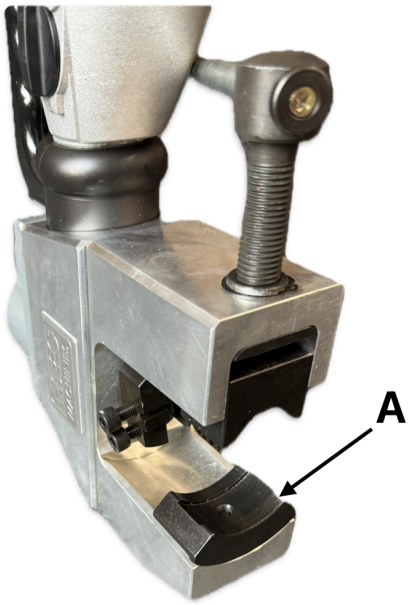
Important:
Never start the C-biter E model series without performing the steps described in this paragraph.

Machine type	List of supplied clamping jaws (outer diameter of pipe/bar)
C-biter 63E	28mm (1.1") / 32mm (1.25") / 38mm (1.49") / 42mm (1.65") / 45mm (1.77") / 51mm (2") / 54mm (2.12") / 57mm (2.24") / 60mm (2.36") / 63mm (2.48")
C-biter 76E	42mm (1.65") / 45mm (1.77") / 51mm (2") / 54mm (2.12") / 57mm (2.24") / 60mm (2.36") / 63mm (2.48") / 68mm (2.67") / 76mm (2.99")
C-biter 89E	63 mm (2.48") / 68 mm (2.67") / 76 mm (2.99") / 83 mm (3.26") / 89mm (3.50")
C-biter 114E	76mm (2.99") / 83mm (3.26") / 89mm (3.50") / 95mm (3.74") / 102mm (4.01") / 108mm (4.25") / 114mm (4.48")

The C-biter E model series must be prepared for specific use and for the required diameter of the machined material before use.

Compensation jaws – correct selection and installation
- Prepare the correct compensation jaw (jaws are supplied with the machine) for the outer diameter of the pipe you intend to machine.
- Insert the compensation jaw into the bed in the C-biter machine clamp and secure it with the screw provided. Tighten the screw in the bed properly. (pos. A fig. 5.2.1.).

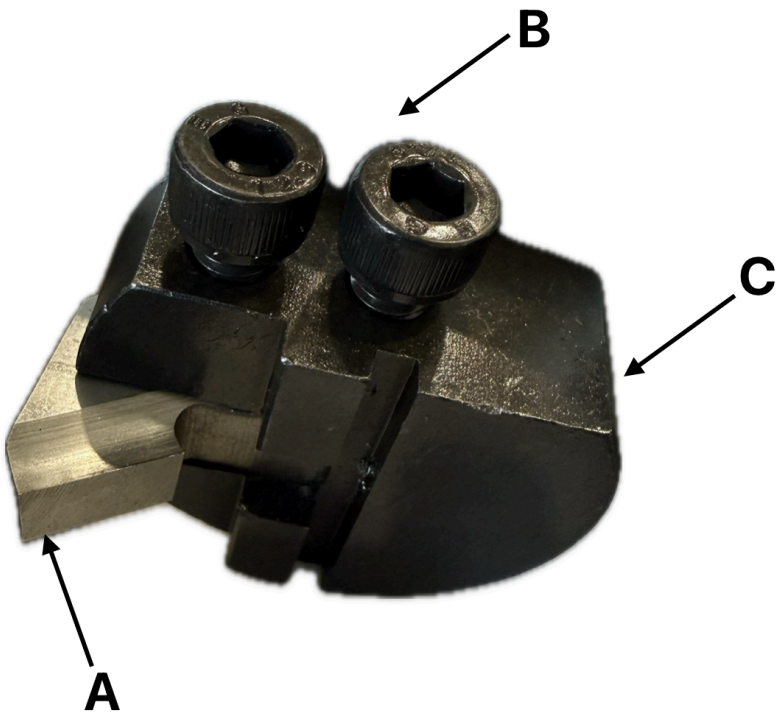
Fig. 5.2.1.



Cutting tool holder

The cutting tool holder is already integrated into the machine at the factory. The holder (item C, Fig. 5.2.2) is designed to hold one tool. Insert the cutting tool (item A, Fig. 5.2.2) into the groove in the holder. Position it (according to the diameter of the pipe/bar being machined) so that the active part of the cutting edge is in the same position as the outer edge of the pipe/bar workpiece. Finally, tighten the cutting tool securely with two screws (item B, Fig. 5.2.2).

Fig. 5.2.2.



Final check before using the machine for the first time

- Make sure that no screws or other parts are loose.
- Make sure that the power cord is undamaged along its entire length and equipped with the correct connector.

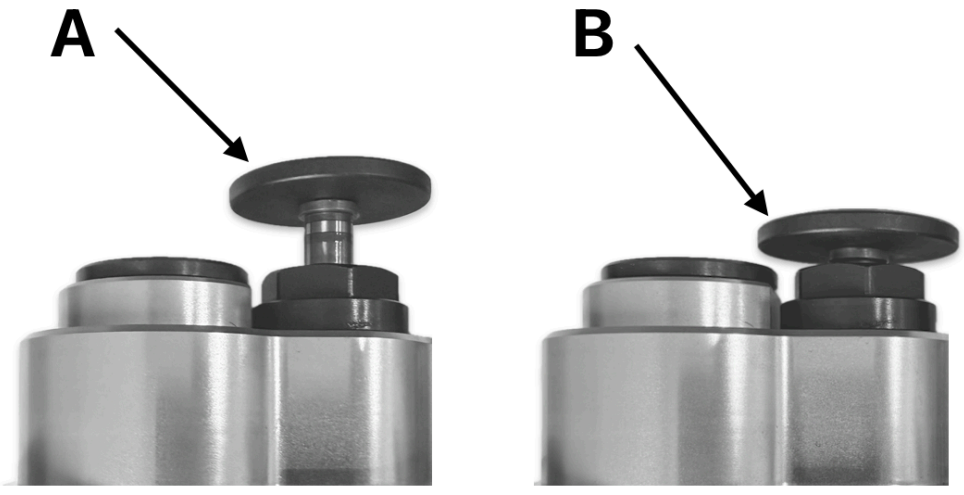
⚠ Caution:
Wear work gloves when adjusting. Operations must be performed on a machine that is stationary and disconnected from the power supply.

Installation of the C-biter E model series machine on a machined pipe.

⚠ CAUTION: Perform the work with maximum concentration. The machine is relatively heavy and there is a risk of injury. Use a crane if necessary.

- Before mounting the C-biter model series E on a machined pipe or rod, the cutting tool holder must be set to its starting position. To do this, deactivate the machine feed by pulling the machine feed control lever all the way up (pos. A in Fig. 5.2.3.). Then switch on the motor and the cutting tool holder will automatically move to its starting position.
- Now, with the machine equipped with the correct compensation jaw (see section 4.3.), place it on the machined pipe or bar so that there is a gap of approximately 2-3 mm between the cutting tool blade and the end of the pipe or bar.
- Secure it properly using the machine's clamping screw (item A in Fig. 3.2.1).

Fig. 5.2.3.



5.3. Machining

Important:
The activities described in this chapter must only be performed after adjusting and preparing the C-biter E model series machine, as described in the previous chapters.

Important:
The C-biter E series machine has speed control. Set the speed at your discretion so that the machine runs smoothly without noticeable vibrations or other complications.

Important:
Prior preparation of the workpiece is a prerequisite for a compact and regular bevel. The workpiece (pipe/rod) must be cut perpendicularly and without any protruding residues or other obstacles.

Creating a bevel

A prerequisite for successful machining is the prior setting and adjustment of the cutting tool and its proper clamping to the pipe or rod, see previous chapters.

- Turn on the machine using the main switch (item L, Fig. 3.2.1.) and, if necessary, secure the switch in the on position using the control (item K, Fig. 3.2.1.).
- Activate the machine feed by pressing the machine feed control (item F in Fig. 3.2.1.) all the way down (item B in Fig. 5.2.3.). The cutting tool will automatically begin to move toward the workpiece. This requires the machine to be running.
- Once you have achieved the desired bevel, deactivate the machine feed (pos. A, Fig. 5.2.3) and, while the machine is still running, wait until the cutting tool holder has returned completely to its starting position. This prepares the machine for the next workpiece.

Cooling of cutting tools
We strongly recommend cooling/lubricating cutting tools during machining. This prevents machine overload, improves the quality of the machined surface, and significantly extends the service life of cutting tools. For cooling or lubrication, we recommend using standard coolants for chip machining, or cutting oils in spray form or applied by other means.

Important:
Avoid overloading the machine. Overloading can be caused by:

- **blunt or damaged cutting tools**
- **excessive strength of the machined material**
- **Excessive pipe wall thickness**

6. MAINTENANCE

6.1. Recommendations

Important:
Maintenance personnel must be qualified technicians.

Never work on moving parts of the machine, even with tools or other objects.
It is strictly forbidden to remove, modify, or tamper with the safety devices on the machine. The manufacturer accepts no responsibility for the safety of the machine in the event of such actions.

Always use only original spare parts for the specific model (see the machine's technical data sheet).

Caution:
Always wear work gloves when performing maintenance on the machine. Only perform maintenance operations on a machine that is switched off and disconnected from the power supply.

Before and after each work shift, and then as needed during the shift, clean the mechanical parts of the machine with compressed air.

Caution:
When using compressed air for cleaning purposes, wear safety goggles and never use a pressure exceeding 2 bar.

Use the tools supplied with the machine for adjustment and maintenance operations.

7. SPARE PARTS

7.1 How to order spare parts

Spare parts orders must include the following information:

- machine type;
- serial number;
- description of the required part and its number
- quantity.

The drive is supplied by Metabo. We do not supply individual spare parts for the drive, only the entire new drive.
Spare parts for the mechanical part of the machine can be found in the technical data sheet supplied with the machine. Alternatively, request it from your supplier.

A copy of this manual is supplied with every C-biter model series E machine.

Manufacturer s and distributor's address:
N.KO., spol. s r.o.
Táborská 398/22
293 01 Mladá Boleslav
Tel.: +420 326 772 001 Fax: +420 326 774 279
email:nko@nko.cz
www.beveler.eu

USA Distributor's address:
BEVELER USA INC.
a Member of Richtr Group
Business Office, Workshop, Warehouse
511 Parkway View Dr,
Pittsburgh, PA 15205
www.bevelerusa.com

Toll Free Number: 1-800-973-1138

email:service@bevelerusa.com