



# Operating Instructions

Issue No. 1  
Sheets 15



## Electric Corner Rounder ECR 40

### Warning

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## 1. INTRODUCTION

We are presenting you the Operating Manual, which contains the technical data of the machine, instructions and guidelines necessary for the correct set-up, commissioning and operation of the machine and its maintenance.

The manual is intended for machine operators and service technicians. These personnel should familiarize themselves with the contents of the manual before handling, installing and commissioning the machine. We emphasize that any service operation may only be carried out by a suitably qualified person. We assume that this person is thoroughly familiar with the operation and all functions of the machine. Any repair carried out without authorisation may lead to a breach of the machine's warranty. We refer to chapter 2.2 - Health and Safety, which provides basic information on machine safety and operator health. Therefore, pay due attention to this chapter. Be aware that the ultimate responsibility for safety rests with the individuals who operate the machine.

The design of the machine complies with Directive 98/37/EC of the European Parliament and of the Council. If all the instructions in this manual are followed, you will be satisfied with the accuracy and performance of the machine.

Please be assured that the utmost care has been taken with the machine. The thoroughness of the inspection guarantees the accuracy of the machine within the acceptance standards applicable to this machine. We trust that the instructions provided will be a valuable guide to you.

## **2. SAFETY RISKS**

### **2.1 Hazard warning**

When using the ECR40, all safety regulations and procedures must be followed and all health and safety warnings in this manual must be observed. Failure to do so may result in serious personal injury or death, damage and destruction of the machine or machine parts and accessories due to the circumstances listed below.

Circumstances increasing the danger:

- tool blades
- electrical voltage
- moving parts of machine mechanisms and equipment
- extreme shearing force
- working without protective plastic cover
- multi-person work

### **2.2 Health and safety at work in general**

The purpose of this chapter is to provide the user of the machine and its accessories with basic information on occupational safety and health protection for the operator and all other persons who come into contact with the machine.

The ECR40 is a very safe machine when used properly. However, it can be very dangerous if used incorrectly. The operator is responsible for his/her personal safety when operating the machine. The machine manufacturer is not responsible for personal injury or damage to the machine caused by not using and operating the machine in accordance with its instructions. The operator of the machine is responsible for ensuring that the machine is operated and maintained and serviced only by qualified persons.

The machine is designed in accordance with international standards and regulations applicable to the construction of machine tools. For machines intended for export to the European Economic Area (hereinafter referred to as EEA), the customer receives a "Declaration of Conformity of Machinery", together with the accompanying technical documentation of the machine - the Operating Instructions, in terms of machine safety guarantees. The machine is also CE marked.

The CE marking on the machinery indicates that the product meets the technical requirements set out in any legislation applicable to it which provides for or allows for this marking. Furthermore, this marking indicates that the prescribed procedure has been followed in assessing that conformity.

'Declaration of conformity of machinery' means the document by which the manufacturer certifies that the machinery in question is in conformity with the requirements of Directive 98/37/EC of the European Parliament and of the Council and the harmonised technical standards. Directive 98/37/EC of the European Parliament and of the Council is the document formulating the generally applicable essential health and safety requirements for machinery operated by a user within the EEA.

For machinery intended for export to countries outside the EEA, Directive 98/37/EC of the European Parliament and of the Council does not apply.

The customer receives the accompanying technical documentation for the machine - the Operating Instructions. The manufacturer hereby appeals to the user to ensure all-round protection by rigorous training of his staff as prescribed by the relevant legal measures, standards and regulations, as well as the Operating Instructions and others.

The machine is designed to work in single cycles, but its operation must be very careful!

The machine operator monitors the process and the working mode of the machine. He/she ensures that the material is replaced with new material and checks the dimensions. The position of the operator is defined in front of the workbench so that from behind the table the user is able to start the machine cycle manually and eliminate the risk of injury.

### **3. WARNINGS**

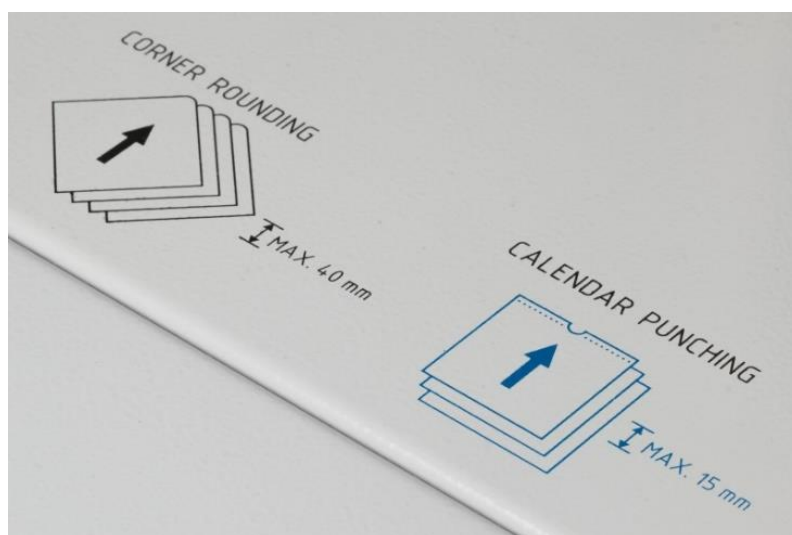
The ECR40 electronic corner rounder is primarily designed for automatic corner rounding.

- a) It is forbidden to use the machine unless the operator or person designated to operate it has been trained.
- b) It is forbidden to round sheet metal and other similar materials.
- c) The machine may only be used in enclosed areas (offices, workshops).
- d) It is forbidden to use the machine with a damaged power cord.
- e) It is forbidden to use the machine if it makes unusual noises.
- f) It is forbidden to connect the machine to a voltage other than that indicated on the manufacturer's label.
- g) Read all instructions before using the machine.
- h) The presence of children near the machine is not desirable.
- i) It is strictly forbidden to put fingers or hands into the product after plugging in the power cord.
- l) The removal of the covers must only be carried out by a qualified person after the machine has been disconnected from the mains.
- m) Tool changes must only be carried out in "SERVICE MODE".

## 4. TECHNICAL PARAMETERS

a)	Maximum working width	520 mm
b)	Recommended paper grammage	80 – 400 g/m <sup>2</sup>
c)	Min. sheet size	85 x 55 mm
d)	<b>Max. stock capacity for corner rounding</b>	<b>40 mm</b>
e)	<b>Max. stock capacity for calendar punching</b>	<b>will be specified</b>
f)	Max. recommended format of calendar	500 mm
g)	Min./Max. format for corner rounding	Business card / SRA3
h)	Machine dimensions	570 x 965 x 385 mm
i)	Machine weight	54 kg
j)	Voltage / Frequency	230 V / 50 Hz, 110 V / 60 Hz
k)	Power input	Resting 90mA In cycle 1,5A During cutting 5,5A
l)	Fuse	Tubular 10A
m)	Noise level	Max 80 dB

***Important note:*** The maximum height of the loaded paper is different for rounding and calendar die-cutting. Both data are marked directly on the loading table. Please respect these indications. Loading more paper could cause overloading and consequent damage to the machine or tool.



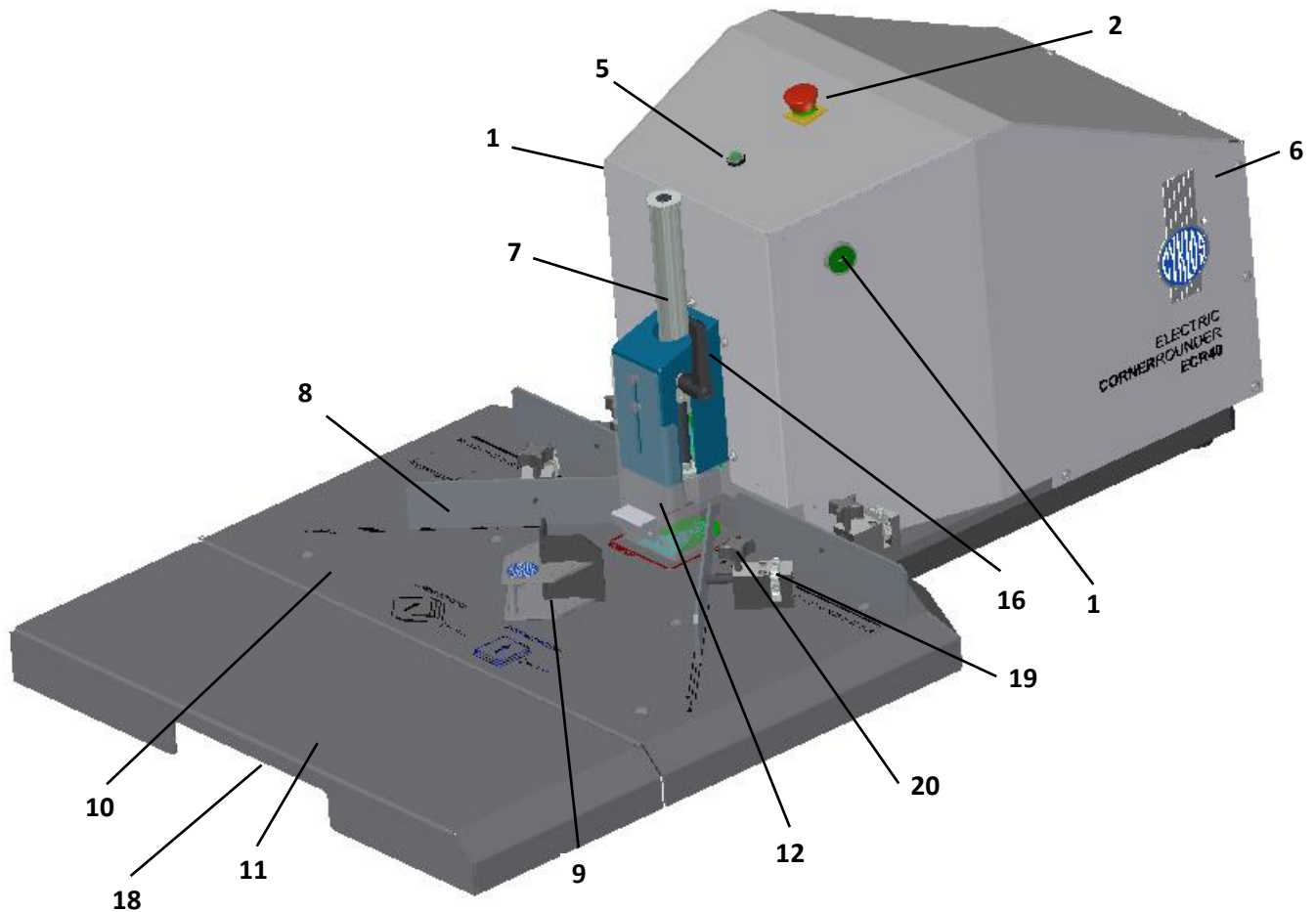
Maximum input capacity is displayed on the feed tray.

*Note: The maximum input capacity for calendar punching will be specified later.*

## 5. MACHINE DESCRIPTION

### 5.1. Introduction

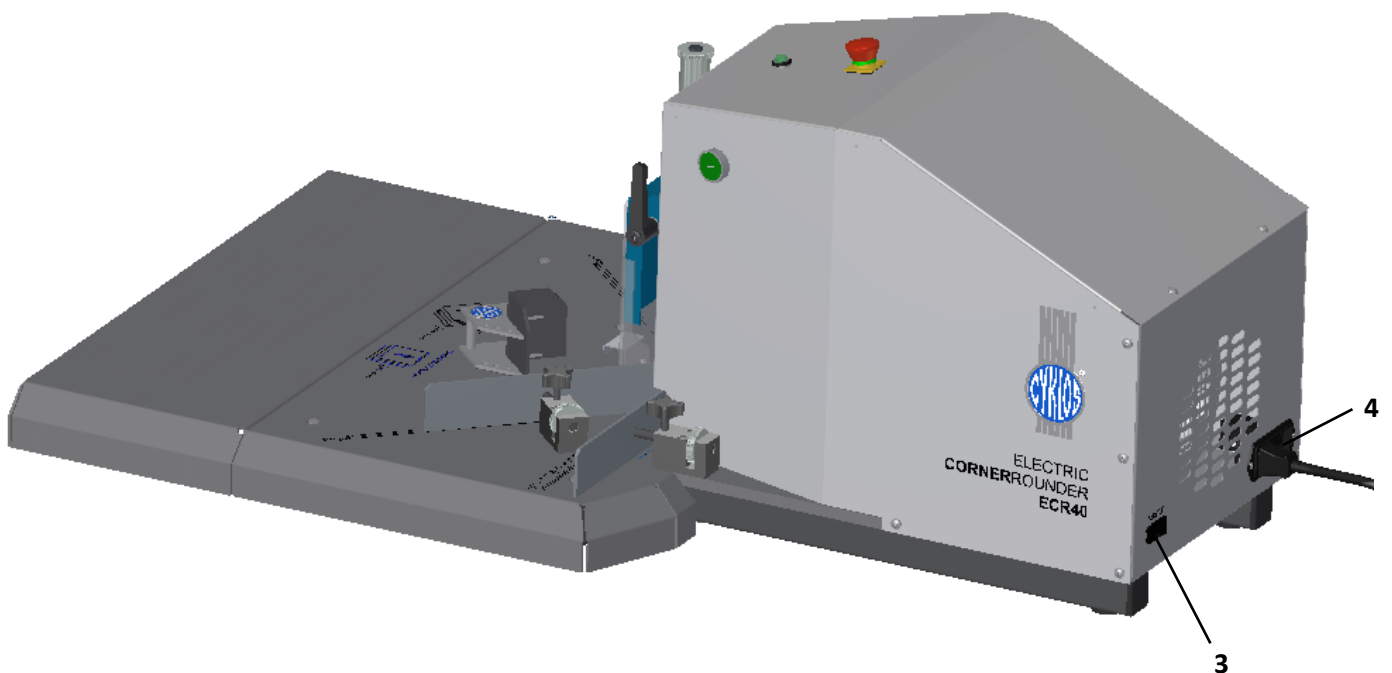
The ECR 40 electric corner rounder is a machine whose primary function is to round corners on prepared paper.



**Fig. 1:** View of the Machine

- 1) START button (starting the cycle – on both sides)
- 2) Emergency STOP button
- 3) SERVICE MODE button – Fig. 2
- 4) Main switch with fuse and power cord – Fig. 2
- 5) LED (on/off indication, errors, diagnostics, service mode)
- 6) Cover
- 7) Paper holder
- 8) Side guides
- 9) Back stop

- 10) Tray
- 11) Tray extension
- 12) Plastic protective cover
- 13) Lower tool – Fig. 3
- 14) Upper tool – Fig. 3
- 15) Setting angle – Fig. 3
- 16) Locking screw of paper holder
- 17) Side guide for calendar punch (not part of the standard equipment) – Fig. 6
- 18) Waste drawer (hidden under the Tray)
- 19) Positioning wheel
- 20) Locking screw of guides



**Fig. 2:** Rear View of the Machine

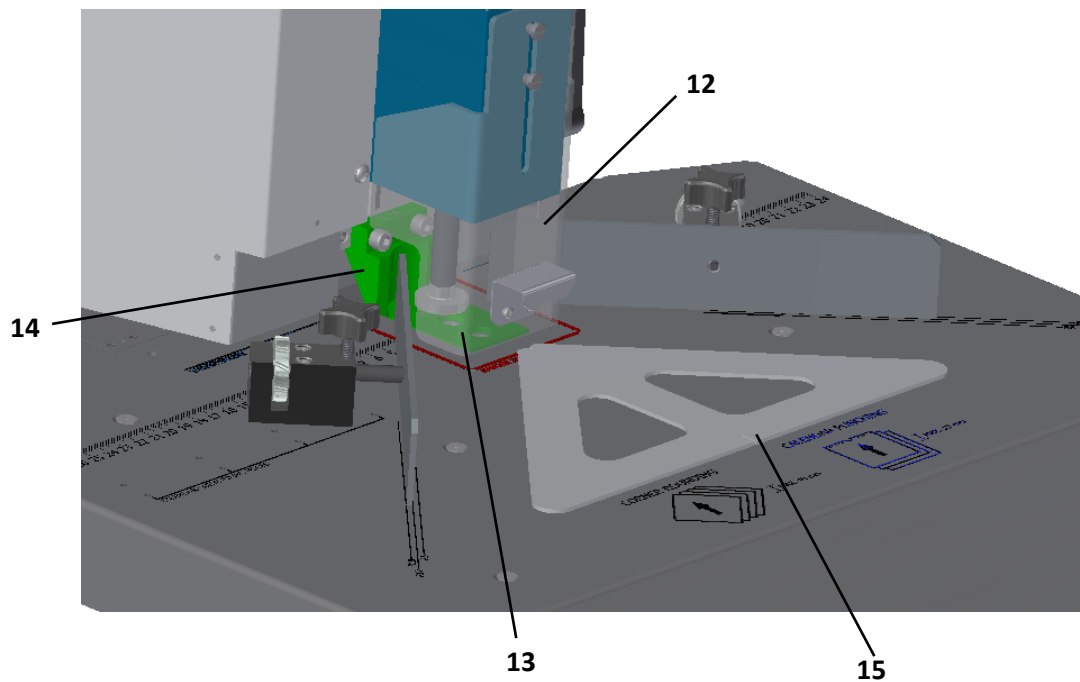
- 3) SERVICE MODE button
- 4) Main switch with fuse and power cord

## 5.2 Installation / Tools replacement

The machine is supplied as standard with one interchangeable tool of the customer's choice as described below. Special tools (e.g. calendar punch) are available as optional accessories.

- 1) Switch the machine to service mode 1 (3) and press and hold the start buttons (1 - 1) simultaneously until the tool reaches the bottom level.
- 2) Disassemble (or just slide out as far as possible to the top position) the Paper holder (7), loosening it with the Locking screw (16)
- 3) Remove the Plastic protective cover (12)
- 4) Unscrew the two screws from the Lower tool (13) and remove the tool.

- 5) Unscrew the screws from the Upper tool (14) and remove the tool.
- 6) Prepare the desired other tool and assemble it starting from the Upper tool (14), attaching it with the screws and tightening it firmly.
- 7) Insert the Lower tool (13) into place and gently push it against the blade of the Upper tool (14), insert the screws and tighten securely.
- 8) Reattach the Plastic cover (12) and Paper holder (7) and tighten securely by Locking screw (16).
- 9) Switch the SERVICE MODE button (3) to position 0 and press the start buttons (1 - 1) at the same time and hold until the machine reaches the top level.
- 10) Now the machine is ready for use.



**Fig. 3:** Detail of the functional part

- 12) Plastic protective cover
- 13) Lower tool
- 14) Upper tool
- 15) Setting angle



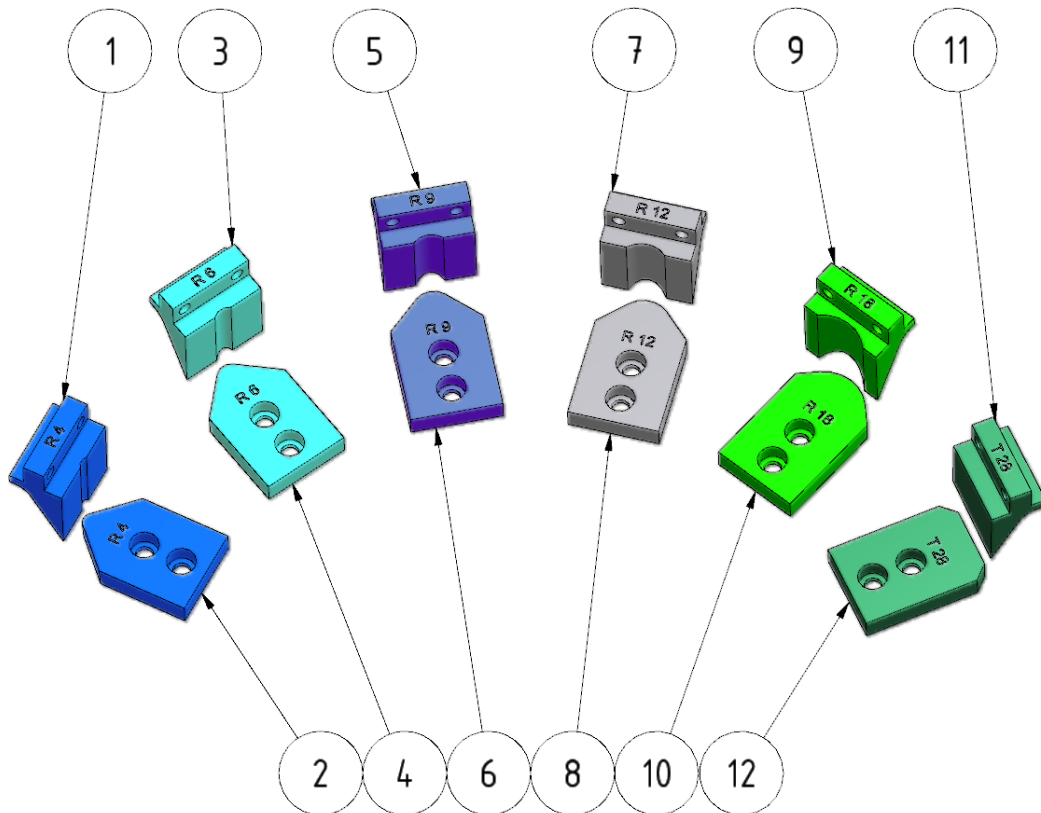


Fig. 4: Interchangeable tools

INTERCHANGEABLE TOOLS ON CUSTOMER'S ORDER			
POS.	PCS	PRODUCT CODE	DESCRIPTION
1,2	2	556 49 273	TOOL R=4
3,4	2	556 49 267	TOOL R=6
5,6	2	556 49 266	TOOL R=9
7,8	2	556 49 265	TOOL R=12
9,10	2	556 49 264	TOOL R=18
11,12	2	556 49 268	TOOL T=28

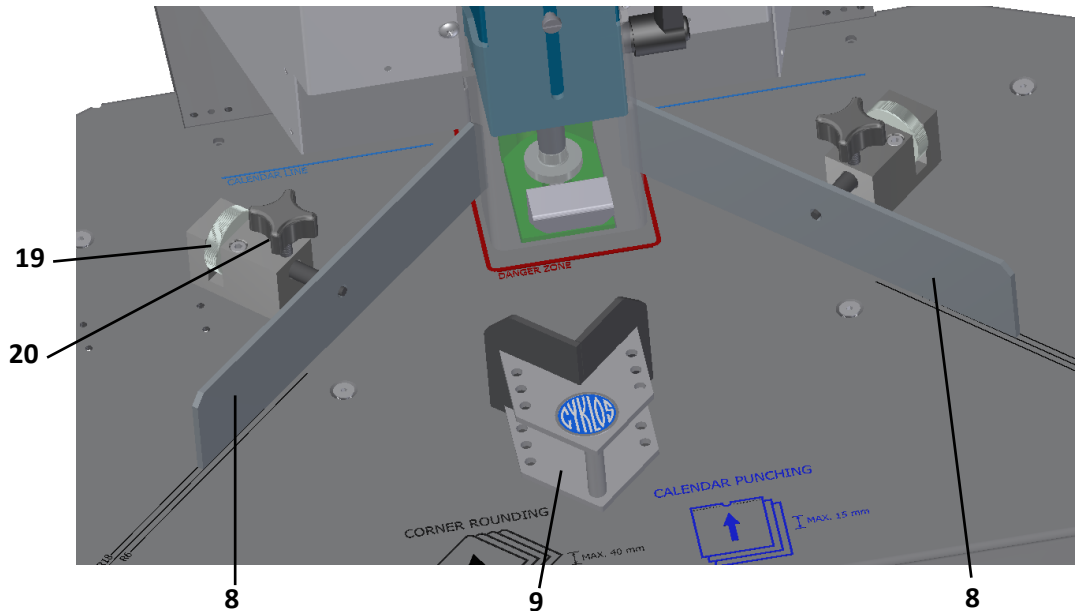
Note: Another interchangeable tool is the tool for calendar punching – read chapter 6.6

## 6. INSTALLATION AND SETTING OF THE MACHINE

After unpacking, take the machine out of the box and place it on a table or in a place designated for the operation of the machine. Tray extension (11) for larger paper sheets can be attached immediately. Fix the screws of each side guide (8) to the prepared holes and tighten securely. Fit on the plastic protective cover (12). Connect the power cable to the machine (4). If we want to use a tool that is already mounted in the machine, the machine is ready for further use.

## 6.1 Machine preparation for corner rounding

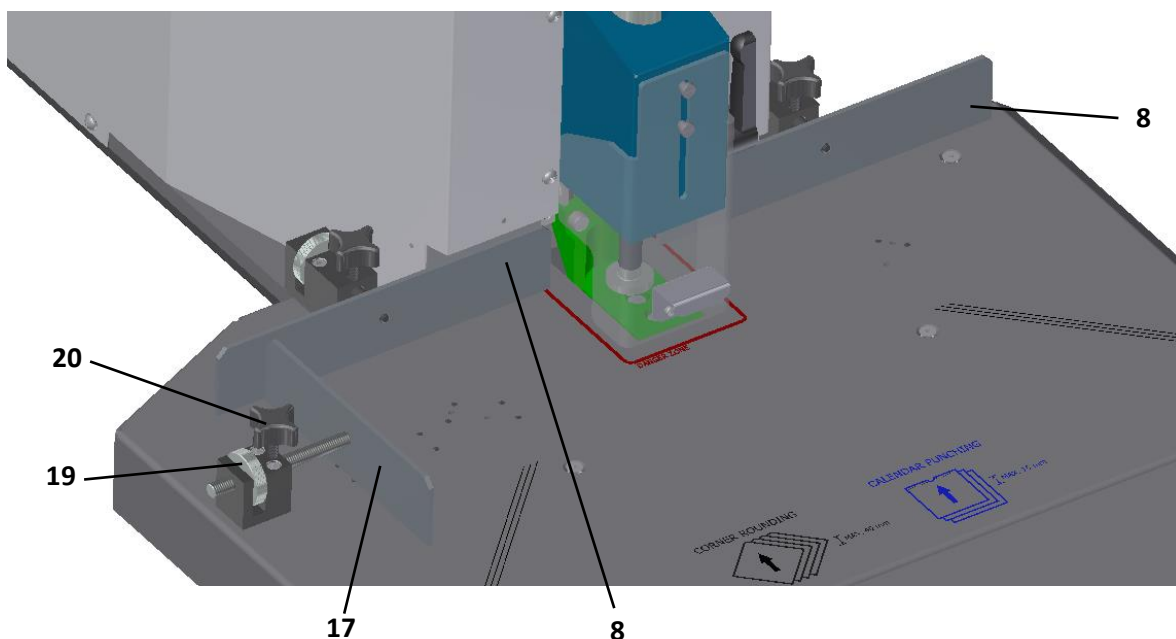
Installing the components needed for rounding corners (according to Figure 5). Place the aluminium cubes of the side guides (8) onto the holes with the pins and fix them by screws to the table (10). Using the positioning wheel (19) of the side guide, set the guides according to the radius of the tool on its radius line. Then tighten the locking screws (20).



**Fig. 5:** Side guides positioning – corner rounding

## 6.2 Machine preparation for calendar punching

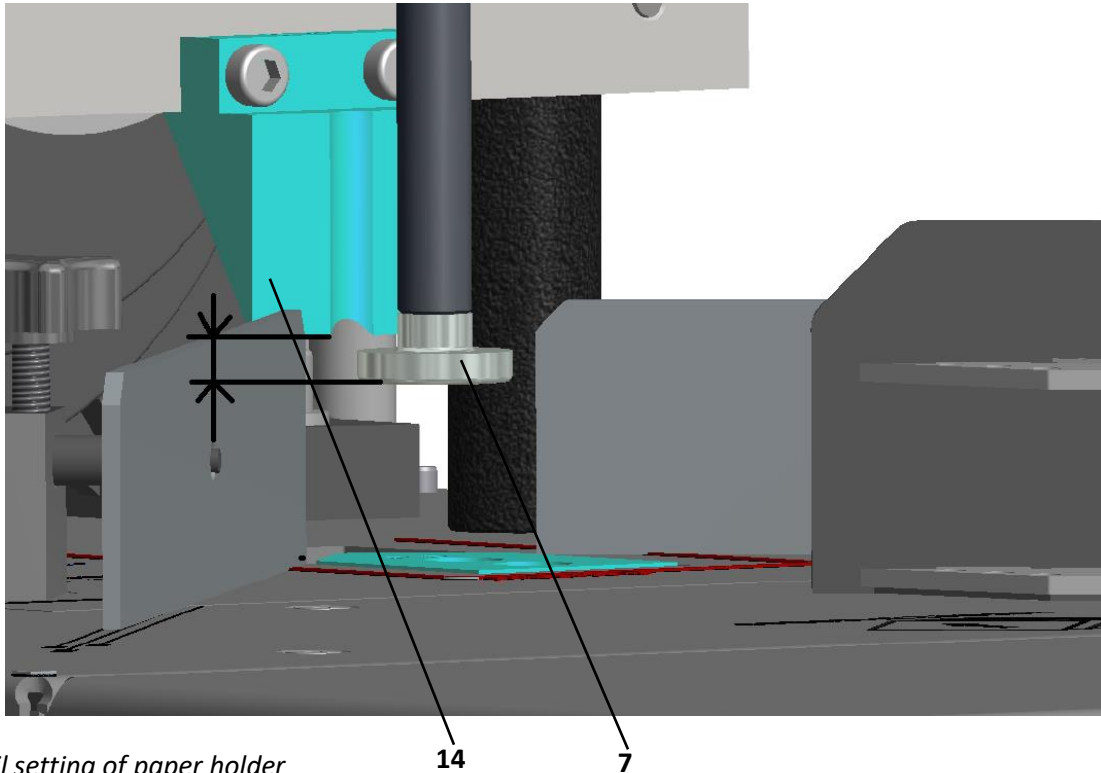
Installing the components needed for calendar punching (according to Figure 6). Place the aluminium cubes of the side guides (8) onto the holes with the pins and fix them by screw to the table (10). Position the Side guide for calendar punch (17) according to the desired calendar format, fix it to the table and tighten the locking screw (20). 4 positions can be used (positions marked on the table - Calendar Guide Fixing Holes).



**Fig. 6:** Side guides positioning – calendar punching

### 6.3 Setting of paper holder

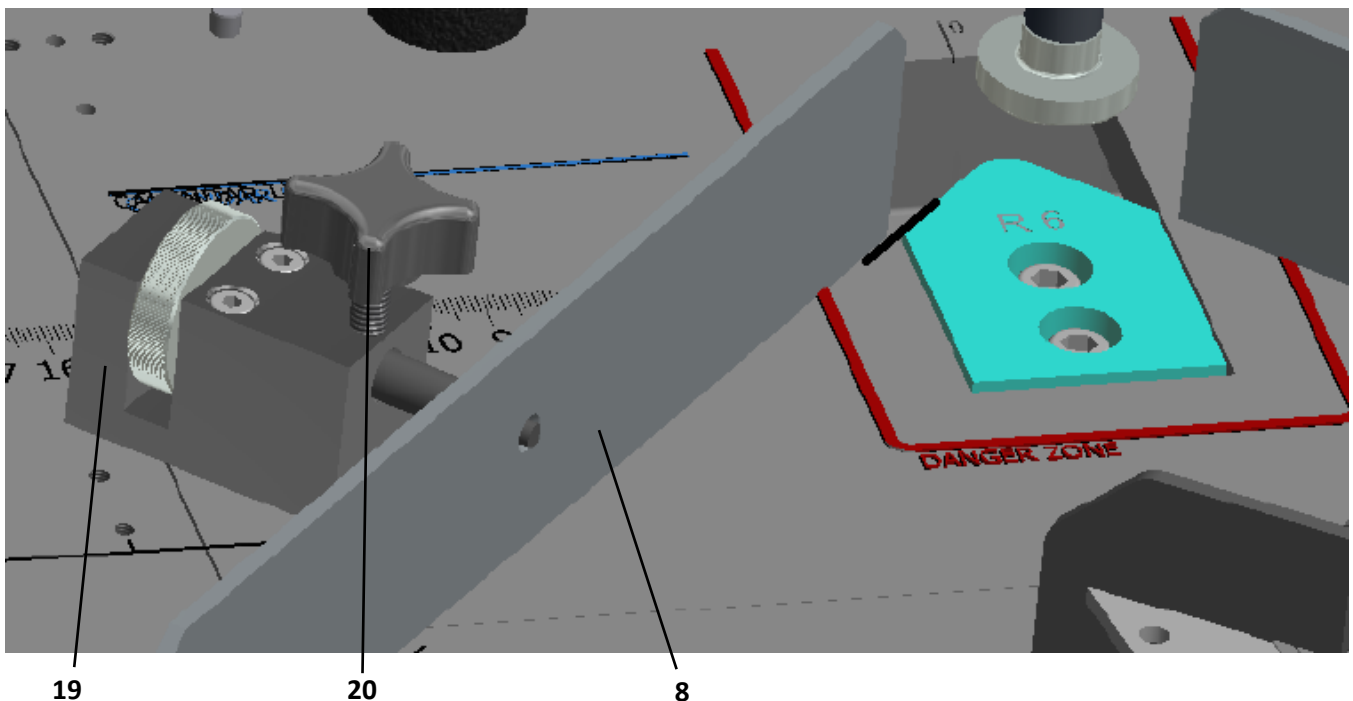
Loosen the paper holder (7) with the locking screw (16), place the lower edge of the paper holder approx. 10 mm below the blade of the upper tool (14) and tighten the locking screw (16).



*Fig. 7: Detail setting of paper holder*

### 6.4 Setting of the guides

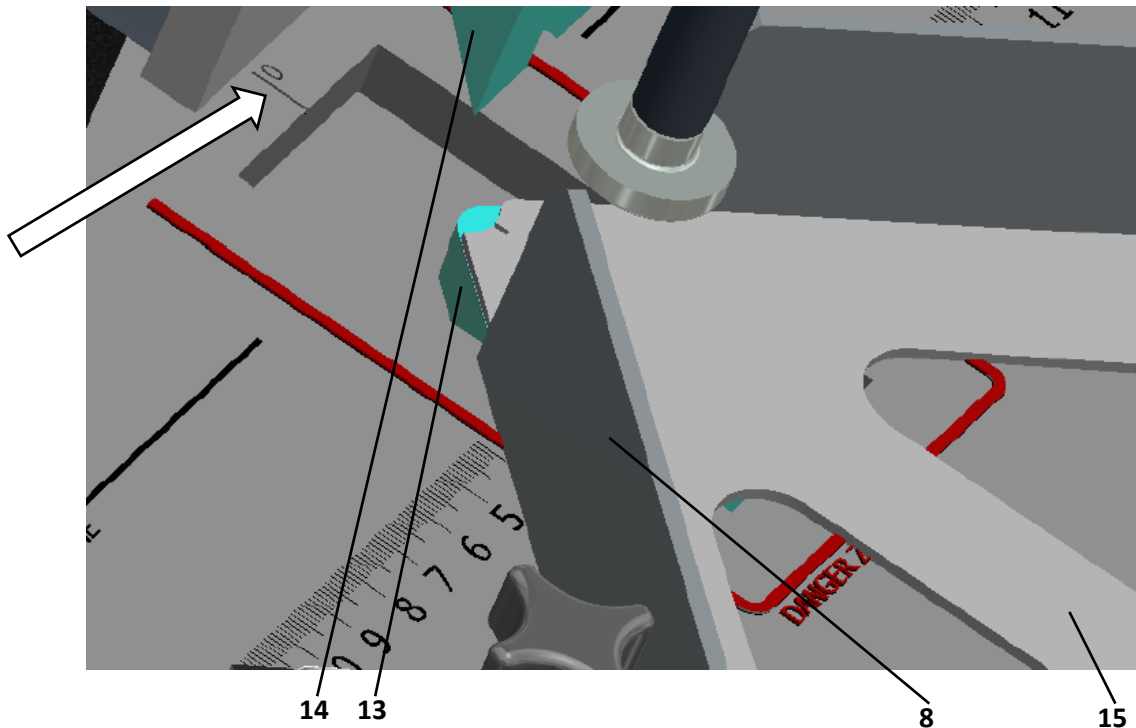
To adjust the Side guides (8), the locking screw (20) of the guides must be loosened (see Figure 9). Then adjust the Positioning wheel so that the edge of the guide is aligned with the edge of the tool (see black line in Fig. 8).



*Fig. 8: Detailed setting of the guide to the tool*

## 6.5 Setting the guides according to the angle

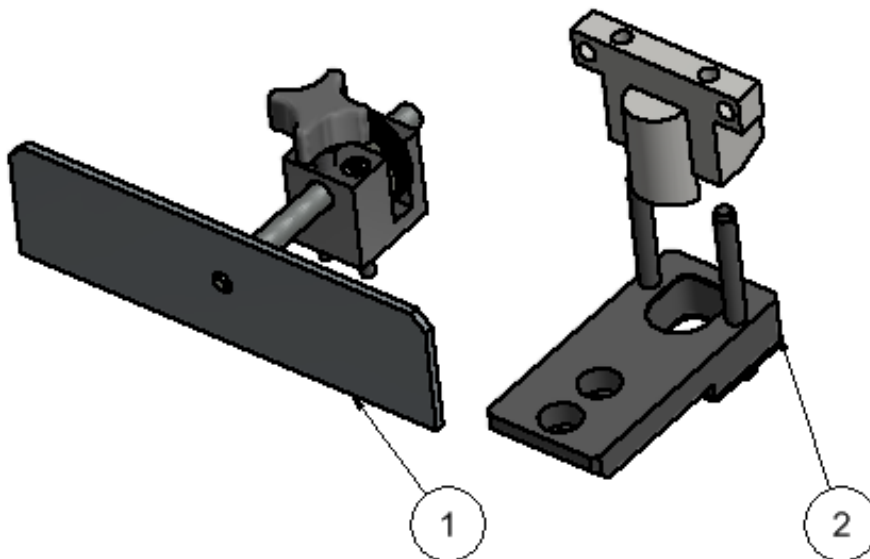
Install and adjust the guides according to chapter 6.1 and then loosen the locking screw (20) on both guides. Position the setting angle (15) between the guides so that the edge of the angle is aligned with the edge of the lower tool (13), then tighten the locking screw (20) on the guides.



*Fig. 9: Setting of the guides according to the angle*

## 6.6 Setting of the guides for calendar punching

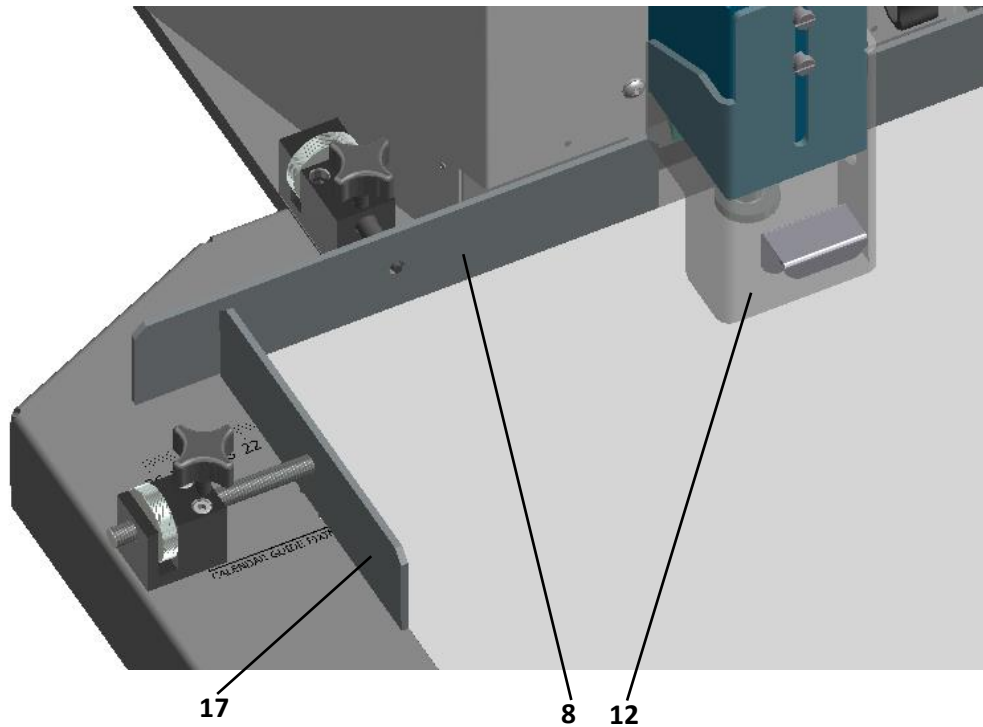
For this function, it is necessary to order a **CALENDAR PUNCHING SET** (563 59 813) consisting of **CALENDAR TOOL** (563 27 350) and **CALENDAR GUIDE** (556 59 821).



*Fig. 10: Calendar punching set*

563 59 813 CALENDAR PUNCHING SET			
POS.	PCS	PRODUCT CODE	NAME
1	1	556 59 821	CALENDAR GUIDE
2	1	563 27 350	CALENDAR TOOL

To set the machine for calendar punching (8), you need to reposition the guides according to chapter 6.2. Alignment to the centre of the paper is possible with the positioning wheel (19) of the calendar guide (17). Position the guide according to the scale so that the calendar punch is exactly in the middle. The centre of the calendar cut-out is given by the engraving with the mark **0** (see white arrow in Fig. 9). The recess of the calendar punch into the paper is adjusted by loosening the locking screws (20) of the side guides (8) and turning the positioning wheels (19). By placing the guides on the blue line marked CALENDAR LINE, an exact half-moon cut-out is achieved.



**Fig. 11:** Setting of the guides for calendar punching

## 7. WORKING CYCLE OF THE MACHINE

If the machine is ready according to chapter 6 Installation and setting of the machine, the actual work on the machine can begin. From the rear side, switch the machine on with the Main switch (4) to the ON position. If the machine is set correctly, the upper LED (5) will light up green (for more information on the upper LED, see chapter 8 - Error message).

Now the machine is ready for the work cycle. Place the paper on the machine between the guides and secure it with the Back stop (9). Start the cycle by simultaneously pressing and holding the START buttons (1 - 1).



**Fig. 12:** Both START buttons must be pressed simultaneously

Conditions to be met:

- Press both buttons at the same time within 0.5 seconds
- Hold the buttons for the entire cycle before the cycle completes and the tool returns to the top position
- If one button is released, the cycle will stop
- If the machine stops mid-cycle, the tool will return to the top position before starting a new cycle



**Fig. 13:** Working cycle – corner rounding



*Fig. 14: Working cycle – calendar punching*

## 8. ERROR MESSAGES

LED indication (5):

E1	.
E2	..
E5	-.
E6	-..
E9	- - ..

.	Short red flash	(approx. 0.2s)
-	Long red flash	(approx. 0.8s)

Errors are machine faults, unauthorised operating conditions and indications of special operating conditions. Errors are indicated according to the type of error and whether it is possible to restart the cycle after the error has been corrected without having to switch the machine off and on.

Errors occurring right after switching on the machine:

1. Pressed (pushed-in) LEFT button E1
2. Pressed (pushed-in) RIGHT button E2

These errors are evaluated as machine faults and if they are indicated by the LED, the cycle cannot be started without restarting the machine.

Faulty operating conditions:

1. Pressed LEFT button for more than 0.5 s E5
2. Pressed RIGHT button for more than 0.5 s E6

This is a condition where the right button is not pressed within 0.5 seconds of pressing the left button (and vice versa), or the button is still pressed after the work cycle is complete. Once the error condition is over, the cycle can be started without having to switch the machine off and on.

Special operating conditions:

Machine in a Service mode – after switching SERVICE MODE button (3) to position 1 E9

The status is indicated from the time the tool reaches the bottom position until the end of the service mode (switching SERVICE MODE button to position 0) and the tool reaches the top position again.

## 9. MACHINE DISPOSAL

After the end of the service life, it is forbidden to dispose of the machine in the municipal waste. The machine must be disassembled, and metallic, non-metallic, plastic, rubber and electronic parts sorted. These parts are disposed of at the relevant points of recycling. Some parts of the machine can contain hazardous substances that are harmful to the environment and health.