

	Operating Manual	Issue No.	1
		No. of sheets	12



Rotary Perforating Machine RPM 350 Plus

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Valid from serial no.:

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Contents

1	IDENTIFICATION.....	3
2	SPECIFICATION.....	3
3	PARAMETERS	3
4	PROHIBITED OPERATIONS	4
5	MAIN MACHINE PARTS.....	4
6	OPERATING INSTRUCTIONS.....	5
6.1	Preparing the machine for use	5
6.2	Input feeding table installation (1).....	5
6.3	Machine start.....	5
6.4	Reading of display.....	6
6.5	Input feeding table adjustment (1)	7
6.6	Output table adjustment (2).....	8
6.7	Replacement and adjustment of perforating and creasing tools	8
6.8	Dismounting of covers (3, 4).....	11
6.9	Separator pressure adjustment	11
7	REMOVAL OF DEFECTS	11
8	MACHINE MAINTENANCE.....	11
9	PROTECTION AGAINST DANGEROUS CONTACT WITH LIVE PARTS.....	11
10	MACHINE DISPOSAL AND TRANSPORT PACKAGING	11

1 IDENTIFICATION

Type marking: RPM 350
Manufacturer: VD Cyklos Choltice
533 61 Choltice
Czech Republic

2 SPECIFICATION

The machine is designed for the processing of paper sheets of size A5 up to SRA3, with a maximum table width of 350mm on a perforating machine with a maximum number of 5 perforating tools on one shaft.

The maximum height of introduced sheets is 30mm.

The machine is designed for the standard processing of common office paper or of paper with similar physical-chemical properties.

3 PARAMETERS

Paper sheet size	A5, A4, A3, SRA3
Max. feeding table width	350 mm
Feeding table capacity	max. sheet stacking height: 30mm
Speed	66 – 118 sheets A4/min (= 3 960 – 7 080 A4/h)
Build-up area	l = 1.075 mm, w = 490 mm, h = 380 mm
Transport size	l = 545 mm, w = 400 mm, h = 405 mm
Tools used	maximum number of perforating tools – 5pc
Paper basis weight – mechanical feed	(60) 80 – 180 gsm

Note: Processing of 60 gsm is possible with special strippers (additional features, product no. 241 49 758).

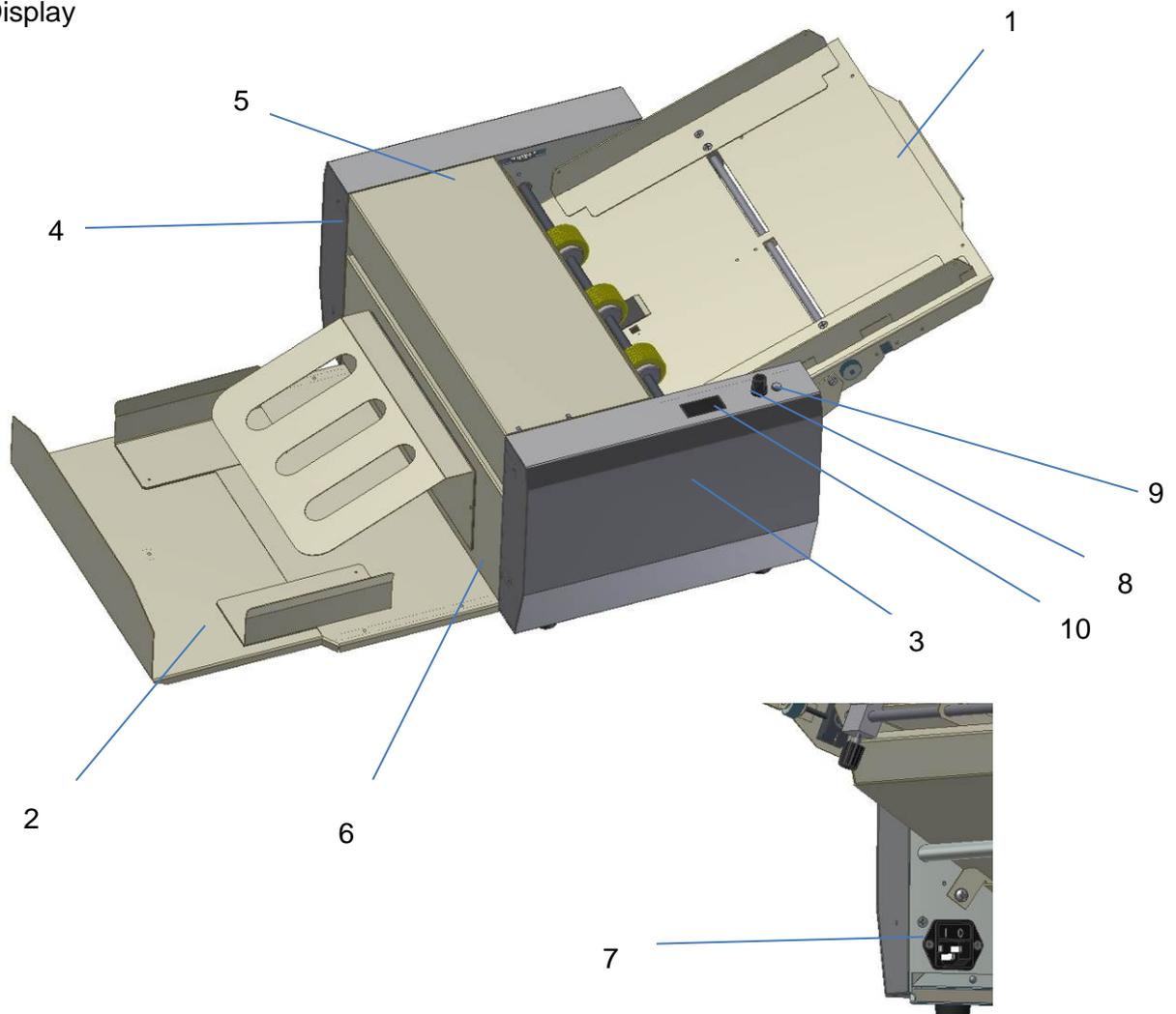
Engine capacity	50W (max. +50%)
Voltage and frequency	220V / 50Hz
Installed input, consumed output	50 – 80 Pi/Pp = W feeding
Weight	nett 18,8 kg, brutt 20.9kg

4 PROHIBITED OPERATIONS

- a) The machine is designed only for the cutting of the paper specified in the parameters section.
- b) It is prohibited to cut metal foils, tin sheets or similar materials.
- c) The machine can be operated only in closed, covered areas (e.g. offices, workshops).
- d) It is prohibited to use the machine if its operation is not continuous and smooth; i.e. it gets stuck, makes an unusual noise or is damaged.
- e) The machine can be operated only if it is covered and in perfect condition and none of its parts is missing.
- f) The machine can be attended only by a person familiar with its operation.

5 MAIN MACHINE PARTS

- 1 Input feeding table
- 2 Output delivery table
- 3 Front cover
- 4 Back cover
- 5 Upper lid
- 6 Lower cover
- 7 Power switch
- 8 Start/Stop button, Speed Control
- 9 Reset button
- 10 Display



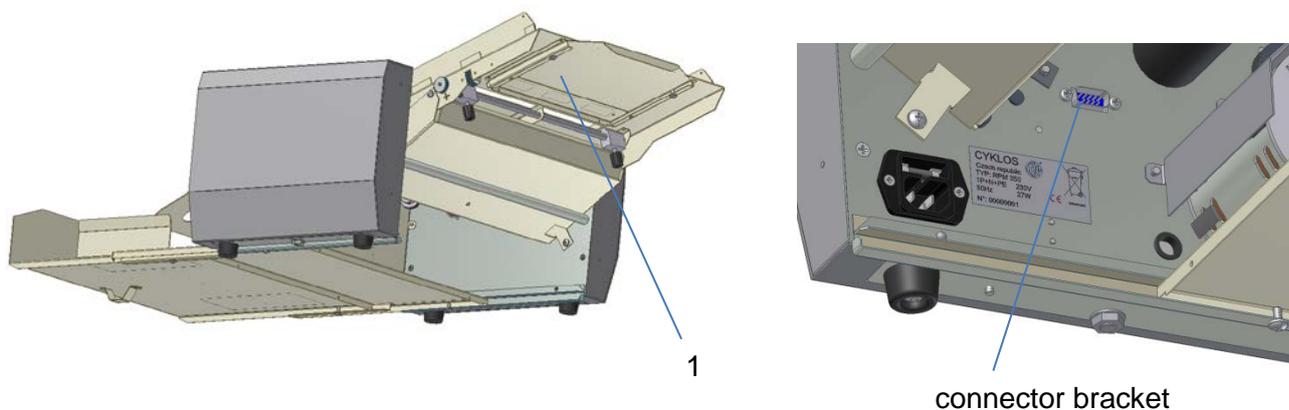
6 OPERATING INSTRUCTIONS

6.1 Preparing the machine for use

- a) Read all instructions carefully before starting work on the machine.
- b) To reduce the risk of injuries do not use the machine near children.
- c) Check all main parts, including the electric cord, for intactness and completeness.
- d) If the machine's operation gets interrupted or the machine becomes stuck, stop working and check the technical condition of the machine.

6.2 Input feeding table installation (1)

After unpacking the machine from packaging, push the input feeding table (1) into the machine and secure with enclosed bolts. Connect the male part into the female part of the connector that is place on the inside of the left side cover of the machine.



6.3 Machine start

Connect the power cord. Start the machine by pressing the power switch (7). If the protective cover is in the closed position and paper is placed correctly on the feeding table, on display (10) appear **0**. If the upper lid (5) is not closed properly, **E-1** or **E-2** show up on display and machine cannot be started. If paper is missing on the feeding table, letter **P** appear and again machine cannot be started. In case of paper jam, motor turns off automatically and **blc** show up on display. In such case it is necessary to remove jammed paper and restart the machine.

There are two ways how to restart the machine:

1. turn the machine off and on again by main switch (7)
2. hold RESET button (9) until blc disappear. If everything all right (after paper removal), 0 display on the screen and it is possible to continue by pressing START (10)

Read more in chapter 6.4 Reading of display

After pressing START the machine automatically starts to feed the paper. By turning the same button it is possible to control the speed. After feeding the last paper the machine stops.

6.4 Reading of display



Symbol "P" appears, if there is a missing paper on the feeding table.



Symbol "blc" appears if rollers are blocked and the motor is overloaded.



Symbols "E-1" (E-2) appear if the upper lid (5) is not closed properly.



Diagnostics



Initial screen of diagnostics.

Appears when RESET button is being held for more than 3 secs.

3 dots on display are shining if:

- 1) There is no paper loaded on feeding table.
- 2) Sensor of the paper is not blocked (no paper inside machine).
- 3) Sensor of motor is blocked by screen placed on driving pulley.



Left dot shows correct function of sensor, which defines revolutions of motor. Slowly move the pulley. If everything is ok, left dot stops shining always when sensor is not blocked by screen.



Middle dot shows correct function of sensor of counter.

To find out if sensor of counter works correctly, outshine it by piece of paper. If everything ok, the middle dot stops shining. Once the paper has been removed, the dot starts shining again. Sensor is placed in the middle between left and middle feeding wheel table.



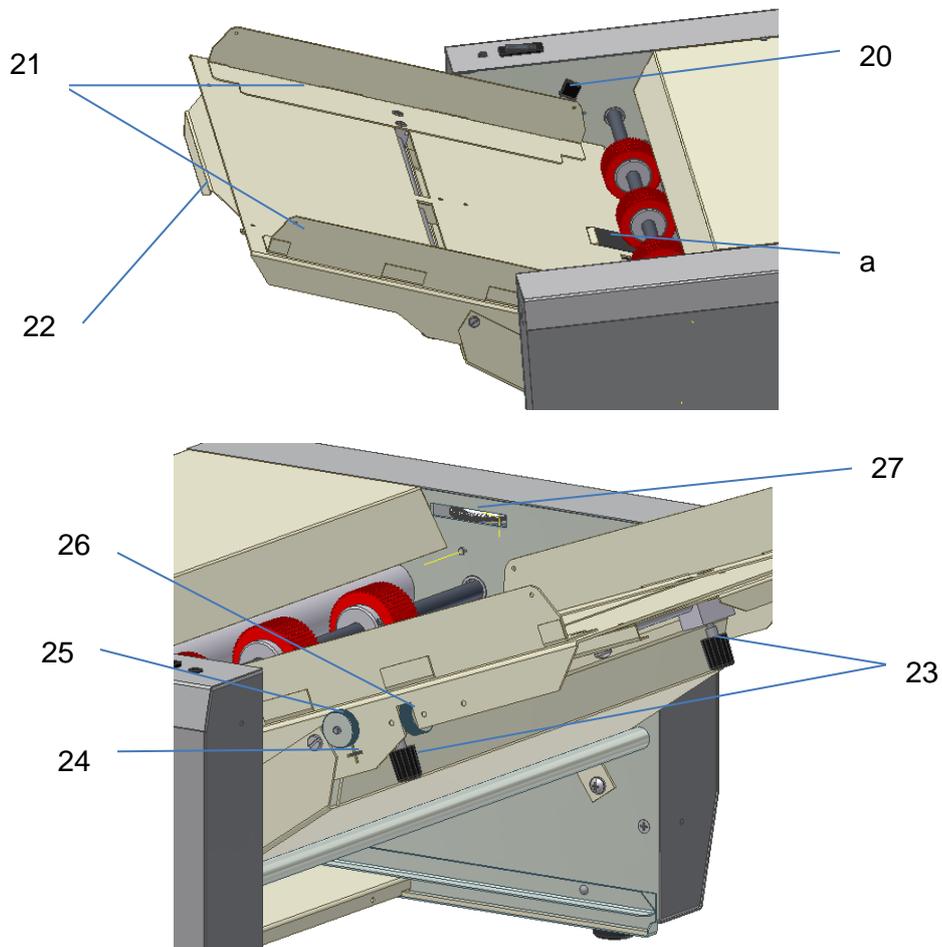
Right dot shows correct function of sensor of feeding table.
To find out if the sensor works correctly, we outshine it by piece of paper. If the sensor is ok, the right dot stops shining.

6.5 Input feeding table adjustment (1)

Keep pushing the table to its lower position until the lever (20) falls into a designated slot and secures the table in the same position. Set the T-squares (21) according to the width of introduced sheets and secure the position of those sheets by the stop screws (23). When introducing small-size sheets, always remember to center them to the table center. The central point of the sheet should always bear on the center of the rubber washer (a). The previously secured T-squares can be set into a transverse position by means of the nut (25) when minor T-square corrections of about $\pm 5\text{mm}$ are required.

The perpendicularity of the T-squares to the table axis is set by means of the nut (26). Check the ideal center position on the cross position mark (24). Support large size sheets by the extension table piece (22).

Note: Sheets weighing 180 g/m² and more must be inserted one by one.

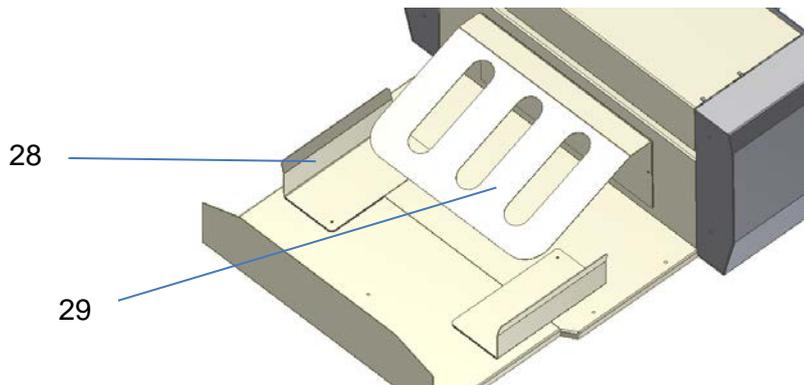


6.6 Output table adjustment (2)

Adjust the output table (2) by pulling the table into a required position, depending on the size of the sheet size processed.

For the easier folding of A3 perforated sheets (and bigger) you can use the bridge (29) and backstop (28). It facilitates the stacking of sheets and substantially reduced the jamming of paper in the perforated trace.

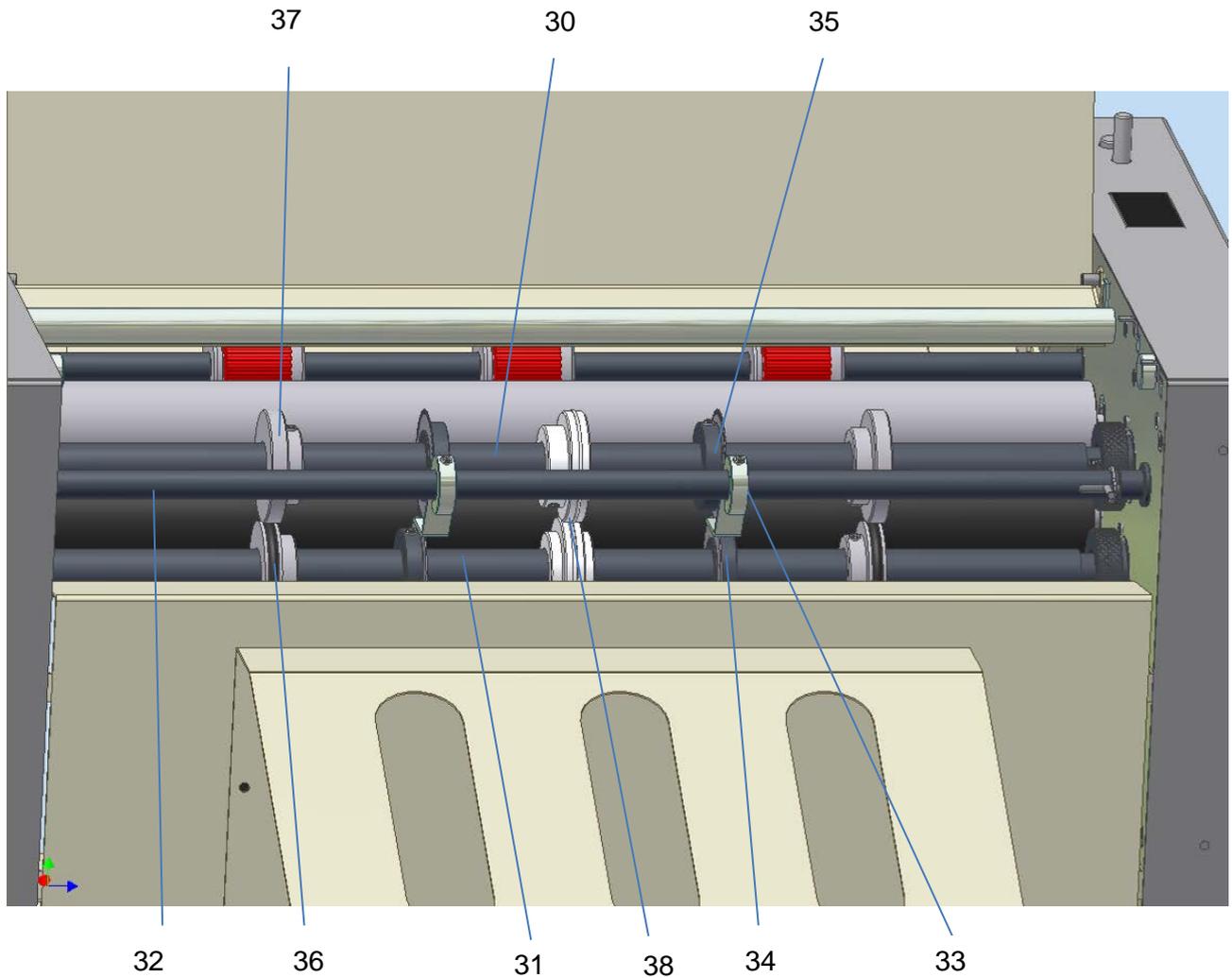
Note: If the table is not extended above the pad, do not overload it, as the table might get damaged, bent etc.



6.7 Replacement and adjustment of perforating and creasing tools

To adjust the perforating tools (34, 35) or the creasing wheels (38), it is necessary to unplug the machine. Open the cover (5) and use a hexagonal spanner to loosen the screws on the hubs of the strippers (33) and remove the shaft with the strippers from the machine.

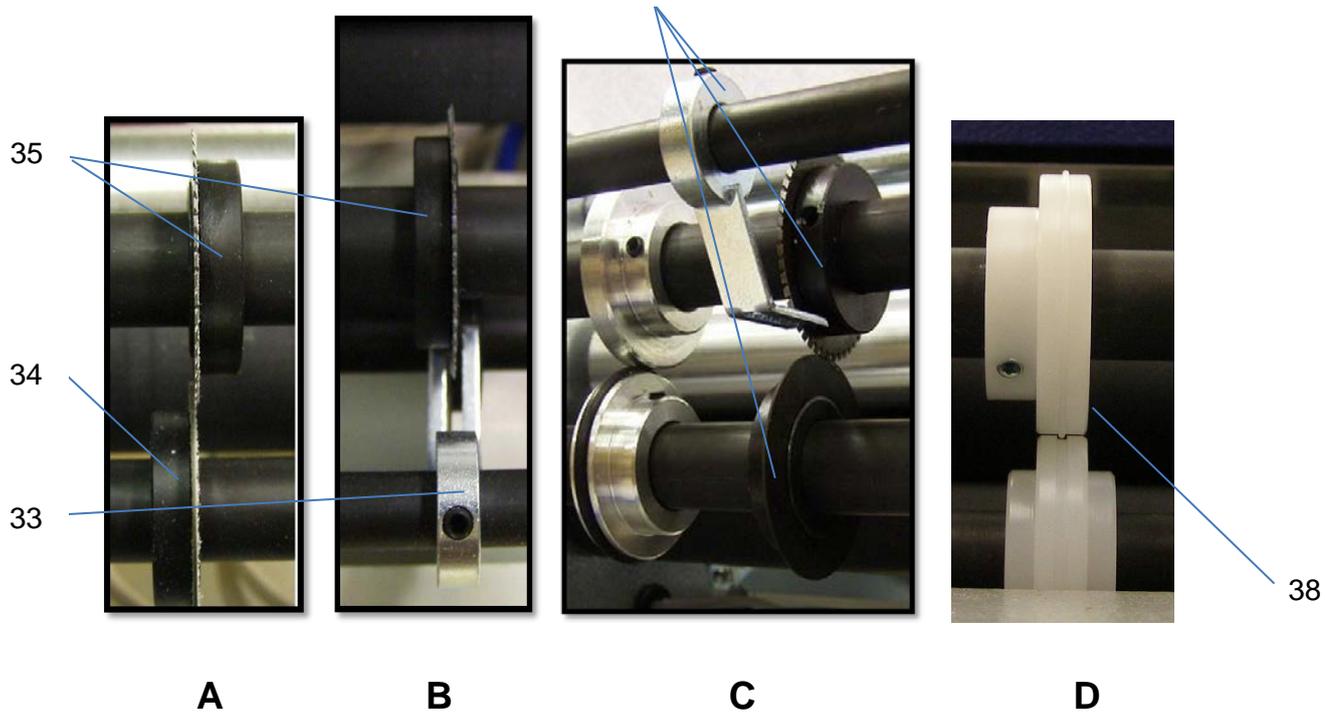
Loosen the screws on the hubs of all tools you want to adjust or remove. Loose tools can be moved freely along the shafts. When the tools are positioned, the screws must be tightened and the tools secured in the required position. Return the shaft with the strippers into the machine to its working position near the perforating wheels.



It is possible to install maximum of 5 tool sets including the stripper (40).

***Note:** Always put indented cutting tools on the upper (30) shaft. Place the tools (34, 35) on the shaft in a mirroring way starting from the center of the adjusted sheet as per the figure. An odd pair of tools must always be oriented according to the half of the adjusted sheet on which that pair of tools is placed. The guide pulleys (36, 37) must always be out on the edge of the document in a mirroring way. If the tools are oriented only on one side of the adjusted document, the mirroring plain equals to 1 half of the distance between the tools located in the farthest positions.*

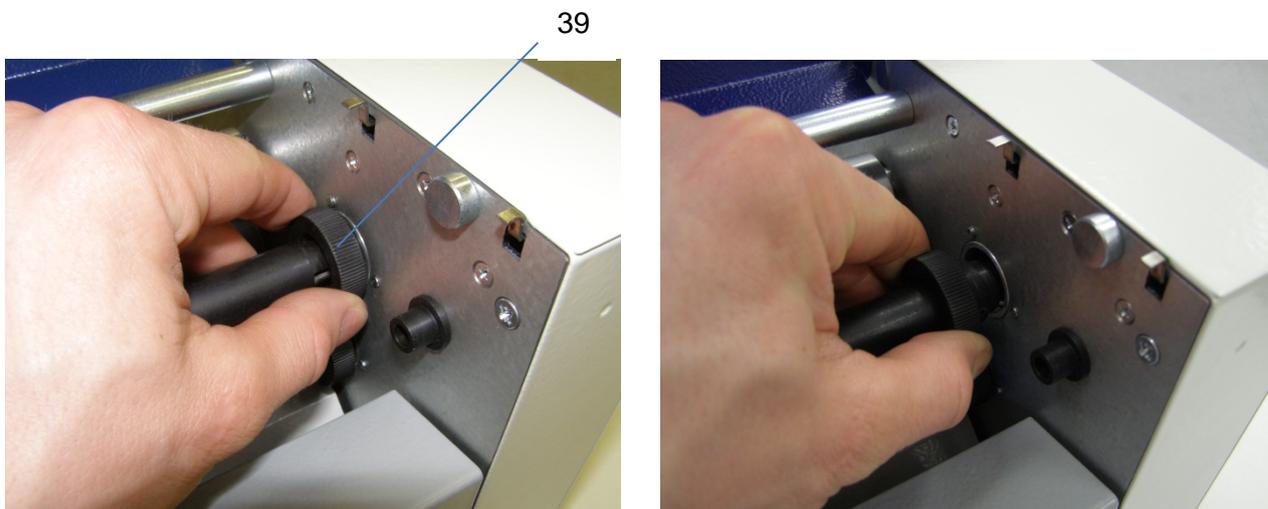
40 = 33+34+35



To process 60 g/m2 paper, it is necessary to use a special set of strippers (product number 241 49 758) and place it as per the figures.



To remove the perforating wheels or the creasing wheel, it is necessary to remove the shaft with the strippers first and then remove the shaft with the perforating wheels. Remove the shaft by holding the bearing (39) and pull it over the spring into the terminal position. Then push the whole shaft back including the bearing that you continue to push into the terminal position, and remove the shaft from the machine as per the figure.



6.8 Dismounting of covers (3, 4)

The covers can be dismounted after work has been finished and fully disconnected from the mains supply. Before resuming work the covers must be reattached and fixed. The covers can be dismounted only by a trained employee.

Note: The covers can be dismounted only when service interference, indented belt replacement or feed roller pressure is required.

6.9 Separator pressure adjustment

The pressure of the separator on the wheel (27) of the feeding shaft must be adjusted in order to secure the proper feeding of paper from the feeding table (1). Turn the wheel clockwise to increase the pressure imposed on the separator. If a thicker sheet is introduced into the feeding table, the pressure of the separator should be smaller.

7 REMOVAL OF DEFECTS

- The machine won't start but the red LED is on:
Make sure the upper cover (5) is closed properly and that the optical sensor on the input feeding table operates properly (1).
- Paper gets crumpled inside the machine:
Open the upper cover (5) and remove the paper from the machine. Make sure that the feed roller turns freely and that it remains in the prescribed position according to fig. A.
- Several sheets are fed simultaneously:
Adjust the pressure of the separator (b) using the adjustment wheel (c).
- The perforated cut is wide and frayed:
Make sure the blades are sharp and set the clearance between both tools. Both tools must touch each other on the external, i.e. not beveled side. See fig. A.
- The machine gets jammed and operates only heavily:
Check all mobile parts under the cover (5).
Make sure the blades are sharp and have not been crossed or misaligned.

8 MACHINE MAINTENANCE

Clean the machine once a month (dust and other impurities), concentrating on the inside of the machine, especially in the area near the electric motor.

9 PROTECTION AGAINST DANGEROUS CONTACT WITH LIVE PARTS

(ČSN 33 2000-4-41)

Covers and insulation, equipment and distribution lines engaged in operation.

10 MACHINE DISPOSAL AND TRANSPORT PACKAGING

When the machine has completed its service life, it can be disposed of together with communal waste. The machine is then dismantled and metal, plastic, rubber, and electronic parts are sorted to be handed in to respective salvage centers for further recycling. Machine parts are not made from hazardous materials and as such can be disposed of as communal waste and their liquidation by a specialized company is not necessary.

Waste classes:

20 01 01 Paper and cardboard

20 01 39 Plastics

20 01 40 Metals

20 01 36 Electrical and electronic equipment