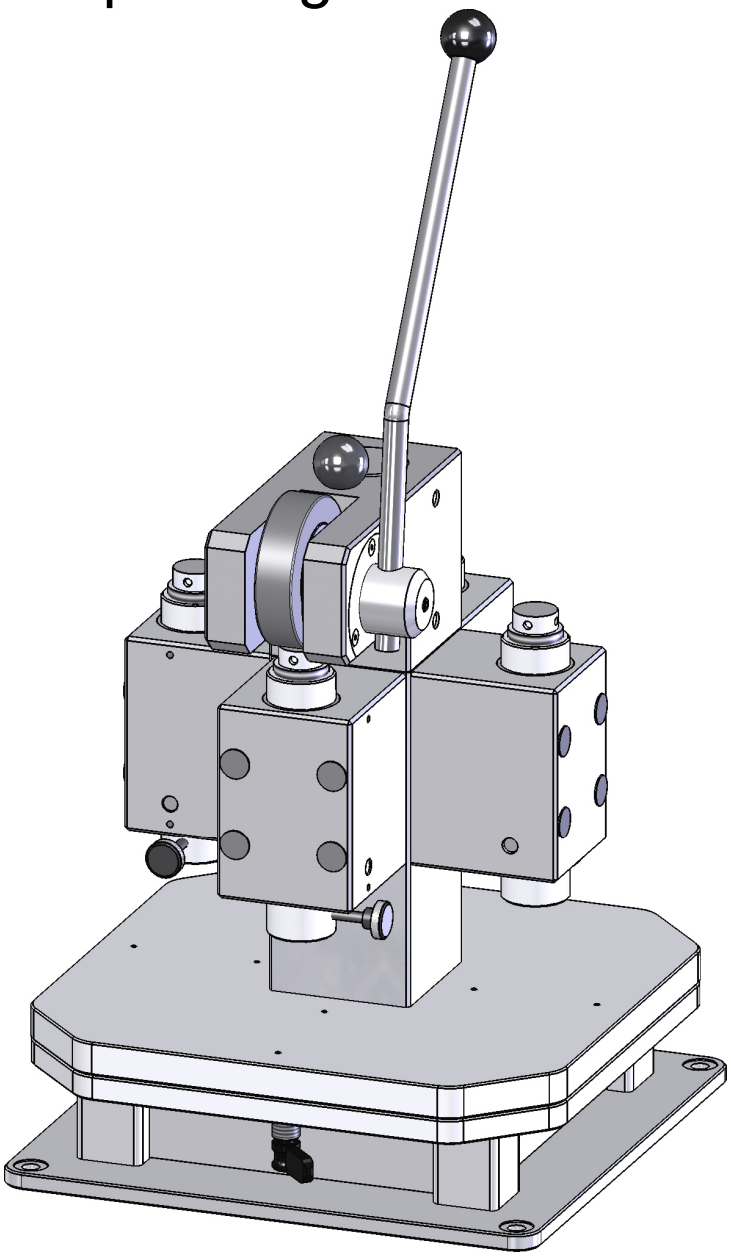
testing solutions since 1954

Operating Instructions



SP 4000 II

Translation of original operating instructions

Keep for future application! Technical changes without notice!

List of Contents

1 Safety Hints

While working with the punching press SP 4000 II, named as punching press, you should follow the following hints:

- The punching press may only be used for the production of samples from elastomers, foams and soft elastic materials.
- Works on punching press may only be done by authorized persons.
- The punching press is to be sheltered from dusty, oily, greasy and metal-dusty air, sources of heating (direct sun beaming, ovens), humidity, wetness and vibration as well as from damage caused by falling down.
- For cleaning of punching press you should only use smooth and not inflammable cleaning agents, for avoiding damaging the surfaces. The cleaning cloth should be soft and lint free.
- Alcohol, gasoline, diluents or other easily inflammatory substances may not be used. The use of such substances can lead to fires.
- Possible danger of injury by sharp edged cutting dies.

2 Ranges of application

2.1 Cutting dies for rubber and elastomers

Cutting Die Shape	Norm	Type	Length [mm]	Material Thickness [mm]
	ISO 37	1	≥115	2±0,2
	ISO 37	2	≥75	2±0,2
	ISO 37	3	≥50	2±0,2
	ISO 37	4	≥35	1±0,1
	DIN 53504	S1	115	2±0,2
	DIN 53504	S2	75	2±0,2
	DIN 53504	S3a	50	2±0,2
	DIN 53504	S3	35	1±0,1
	ASTM D 412	C	≥115	1,3 ... 3,3
	ASTM D 412	A	≥140	1,3 ... 3,3
	ASTM D 412	B	≥40	1,3 ... 3,3
	ASTM D 412	D	≥100	1,3 ... 3,3
	ASTM D 412	E	≥125	1,3 ... 3,3
	ASTM D 412	F	≥125	1,3 ... 3,3
	ISO 37	A	52,6	4±0,2
	ISO 37	B	10	1±0,1
	DIN 53504	R1	52,6	4±0,2
	DIN 53504	R2	44,6	4±0,2
	ASTM D 412	1	17,9	1 ... 3,3
	ASTM D 412	2	35,8	1 ... 3,3
	ISO 34-1	tear test trouser shaped sample	≥100	2±0,2
	ISO 34-1 ASTM D 624	tear test angle die C without nick	≥100	2±0,2
	ISO 34-1 ASTM D 624	tear test Crescent die B without nick	≥110	2±0,2
	ASTM D 624	cutting die A	42	
	ISO 34-2 ISO 816	tear test Delft sample with nick	60	nick 5±0,1
*The technical specifications are without notice- further cutting dies on demand				

3 Start-up

3.1 Control of contents

Check supplied equipment for completeness and soundness.
See "delivery note".

3.2 Installation of punching press

- Cut and remove packing tapes.

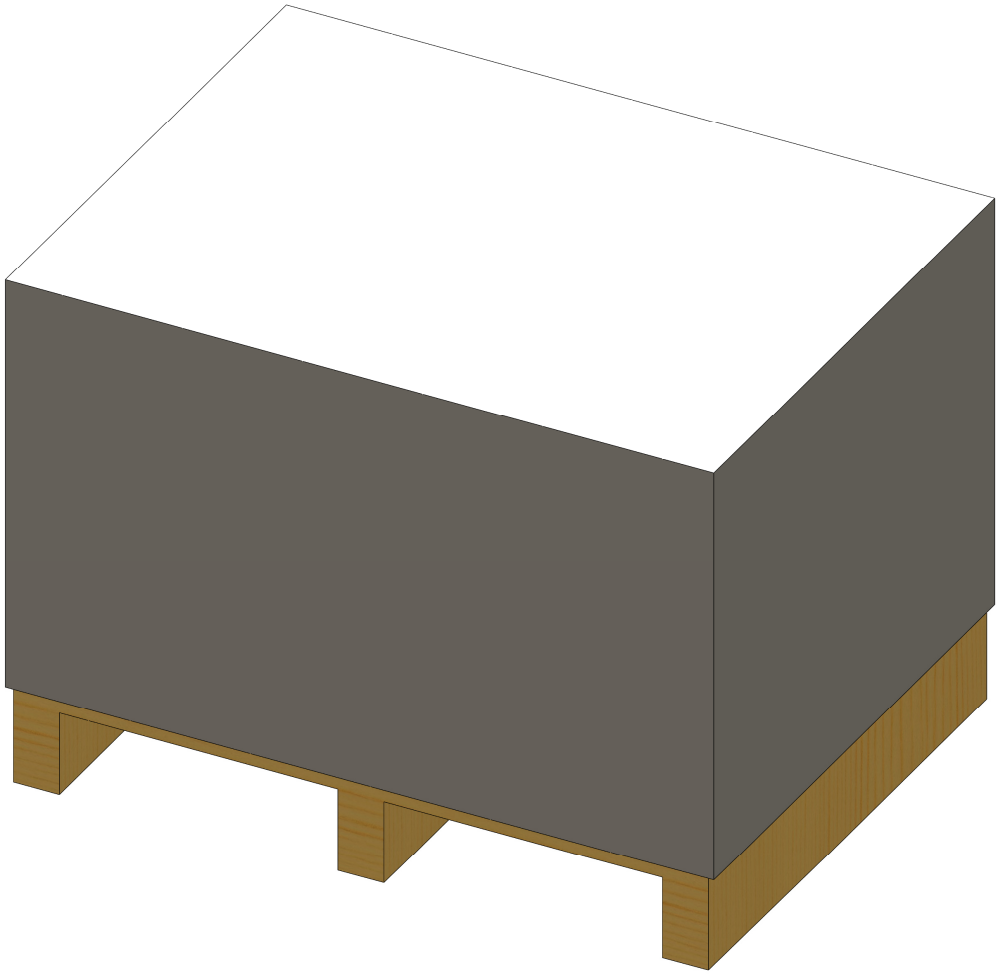


FIG. 1 REMOVING PACKING TAPES

- Pull up cardboard cover (2.01).

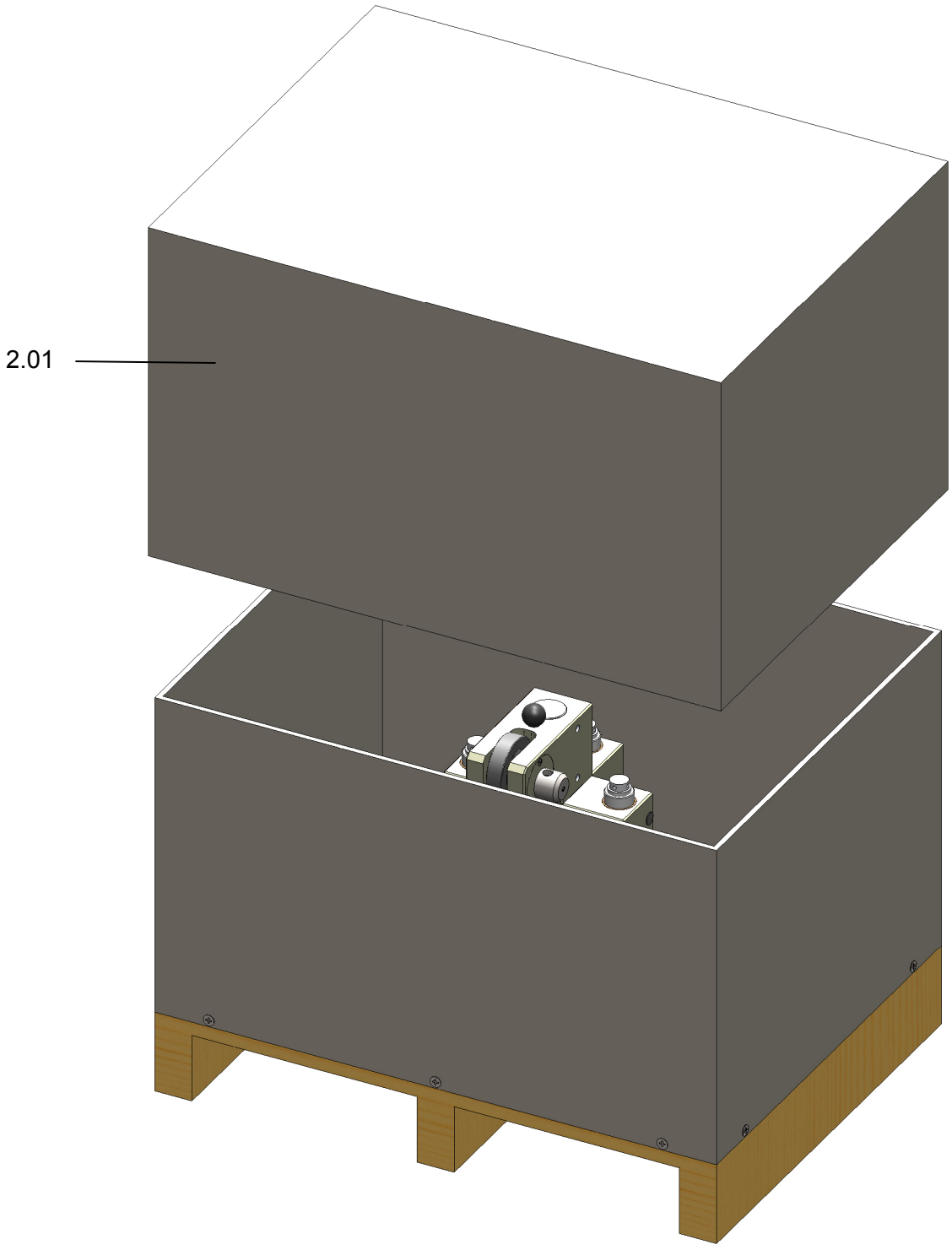


FIG. 2 PULL UP CARDBORAD COVER

- Loosen and remove the screws (3.01).

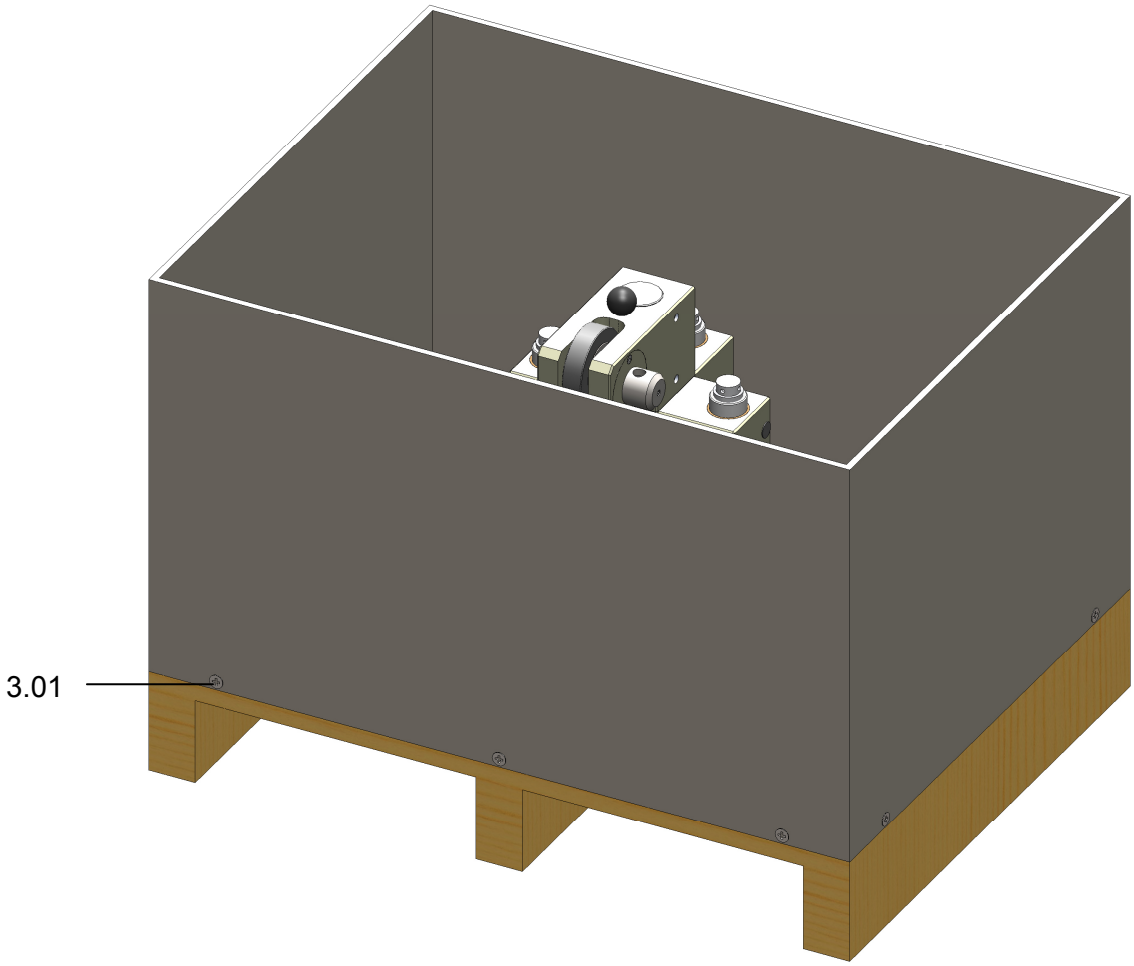


FIG. 3 REMOVING THE SCREWS

- Pull up cardboard (4.01).

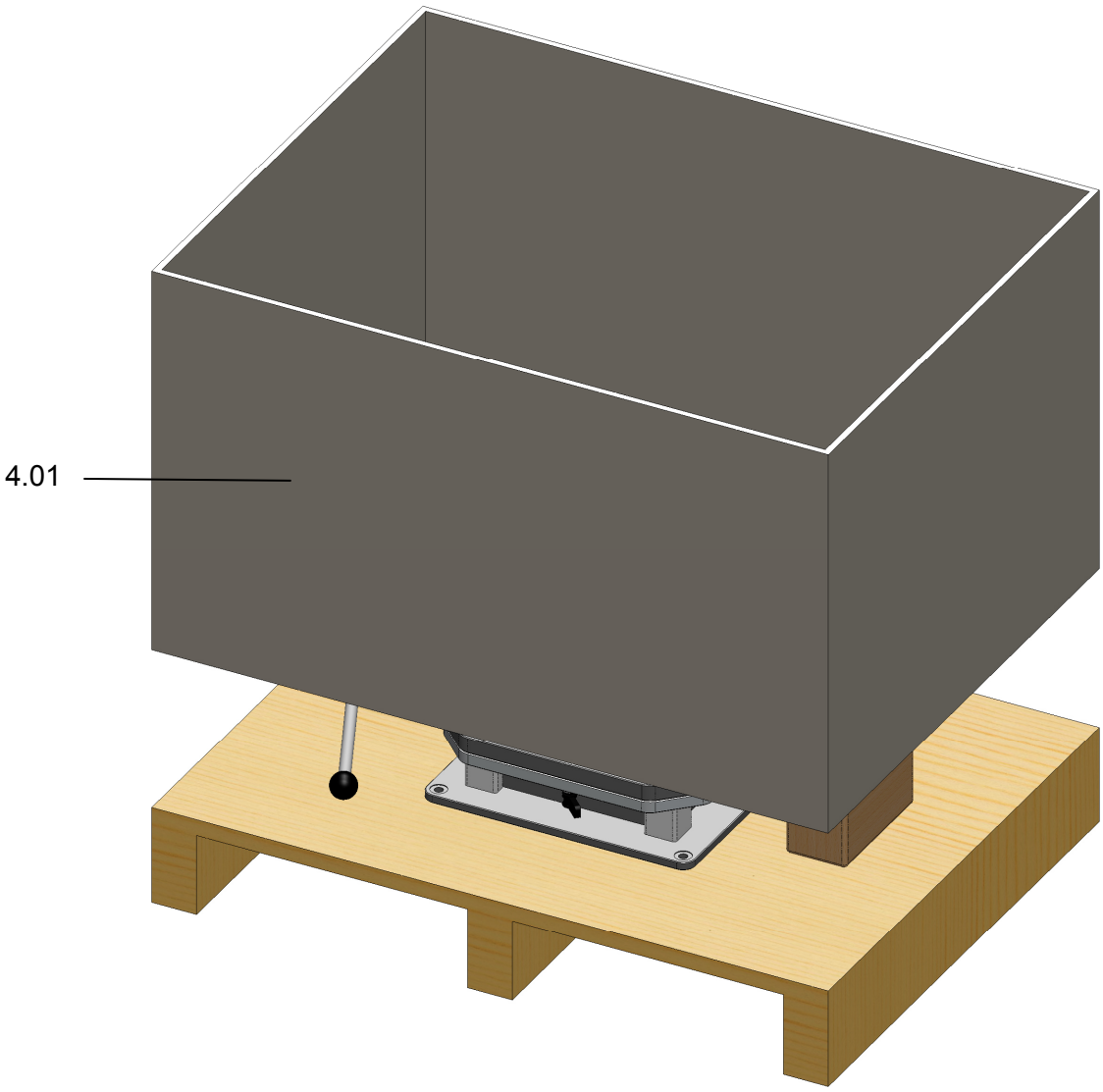


FIG. 4 PULL UP CARDBOARD

- Loosen and remove transport protection screws (5.01).
- Take cutting press (1.00) out.

Mind your spine – weight approx. 50kg!

- Place cutting press on a stable base.
- Fix cutting press by screws.

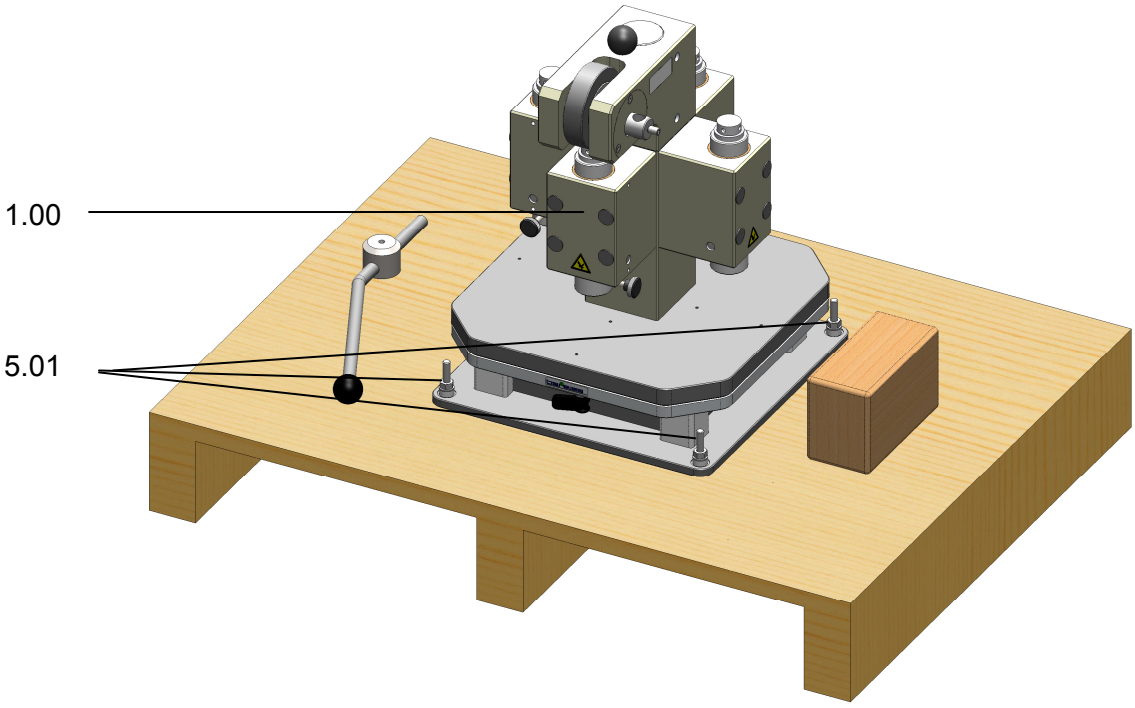


FIG. 5 REMOVING TRANSPORT PROTECTION SCREWS

3.3 Assembly of hand lever

- Loosen grub screw (1.02) with Allen key
- Pull hand lever (1.01) out of the drilling of retaining ring (1.09).
- Push retaining ring on the shaft (1.10).

⚠ Pay attention that the drillings of the retaining ring and of the shaft are concentrically above each other.

- Push hand lever into the drilling of the retaining ring.

ⓘ The lower end of hand lever has got a distance of ≈10 mm from the drilling.

- Tighten grub screw with Allen key.

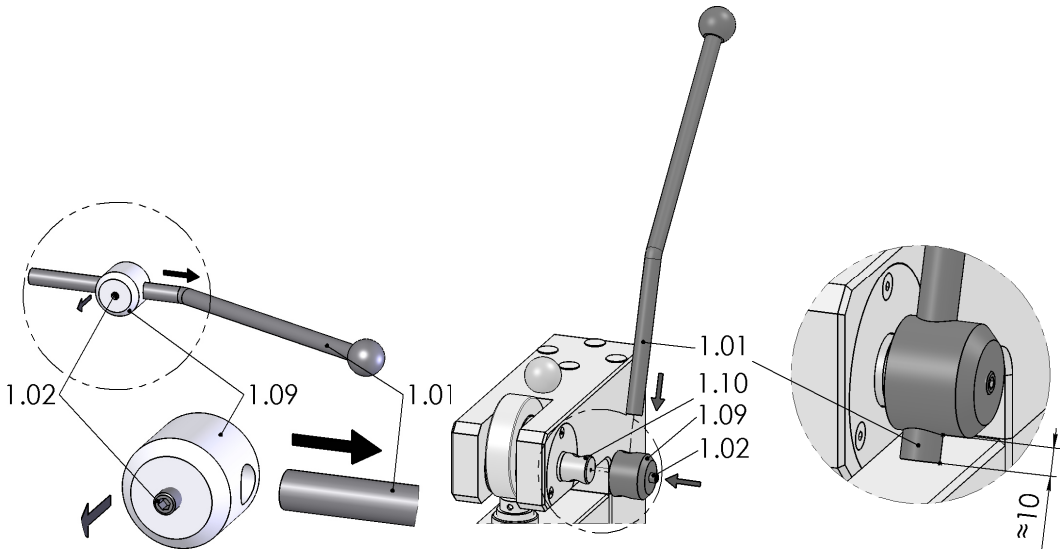


FIG. 6 ASSEMBLY OF HAND LEVER

3.4 Installation of cutting die

⚠ Put cutting mat on supporting table in order to avoid damages.

- Hold cutting die (2.00) by its sides.

Do not grip under cutting die!
Danger of injury at the cutter of cutting die!

- Loosen knurled screw (1.04).
- Push cutting die into center sleeve (1.08) to its stop.
- Tighten knurled screw.

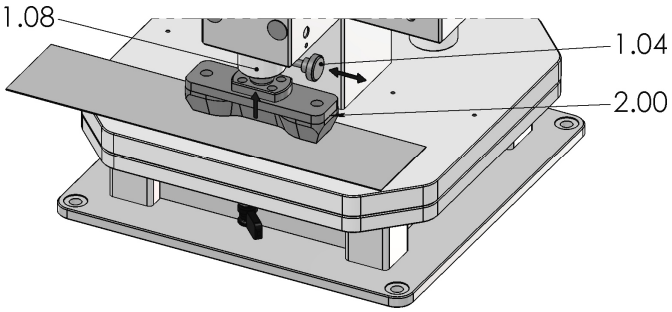


FIG. 7 INSTALLATION OF CUTTING DIE

3.4.1 Delivery with centering rings (Option)

cutting die Ø 52,6 mm
cutting die Ø 44,6 mm above centering ring Ø 52,6 mm
cutting die Ø 36,6 mm above centering ring Ø 44,6 mm

3.5 Clicking into cutting position

- Press raster bar (1.06) to your left.
- Rotate supporting table (1.05) until cutting die (1.00) is beneath eccentric (1.07) of hand lever (1.01).
- Press raster bar to your right. Pay attention that it clicks in again.

3.6 Adjustment of cutting depth

- Place a cutting mat onto supporting table in order to protect cutting die (1.00) and supporting table from damage.

The cutting mat may not be cut completely.
The adjustment of distance between cutting die and cutting mat (1.05) may only be done without sample.

- Check cutting depth.

The adjustment pin (1.02) is in the pick-up device of the column.

- Take off adjustment pin and adjust distance between cutting die and supporting table by rotating the adjustment screw (1.03).
  - bigger distance -> clockwise rotation of adjustment screw
  - smaller distance -> counter-clockwise rotation of adjustment screw

- Remove adjustment pin and push it into pick-up device of the column.

This procedure has to be done for each exchange of cutting die.

- Press hand lever down completely.

Danger of injury! Hand lever should be hold during complete cutting procedure because it is spring operated and therefore it is under stress!

The cutting mat should be cut in this way that the contour of the cutting die is slightly visible in the cutting mat.

- Rotate hand lever back to its starting position.

Repeat adjustment procedure if there is no contour visible on cutting mat.

Don't grip under cutting die! There is a danger of injury at the blade of the cutting die!

- Place material onto supporting table (1.05) with cutting mat.
- Rotate hand lever down completely.

Danger of injury! Hand lever should be hold during complete cutting procedure because it is spring operated and therefore it is under stress!

The sample is cut out.

- Rotate hand lever back to its starting position.

The sample is ejected by ejector.

Don't grip under cutting die!
There is a danger of injury at the blade of the cutting die!

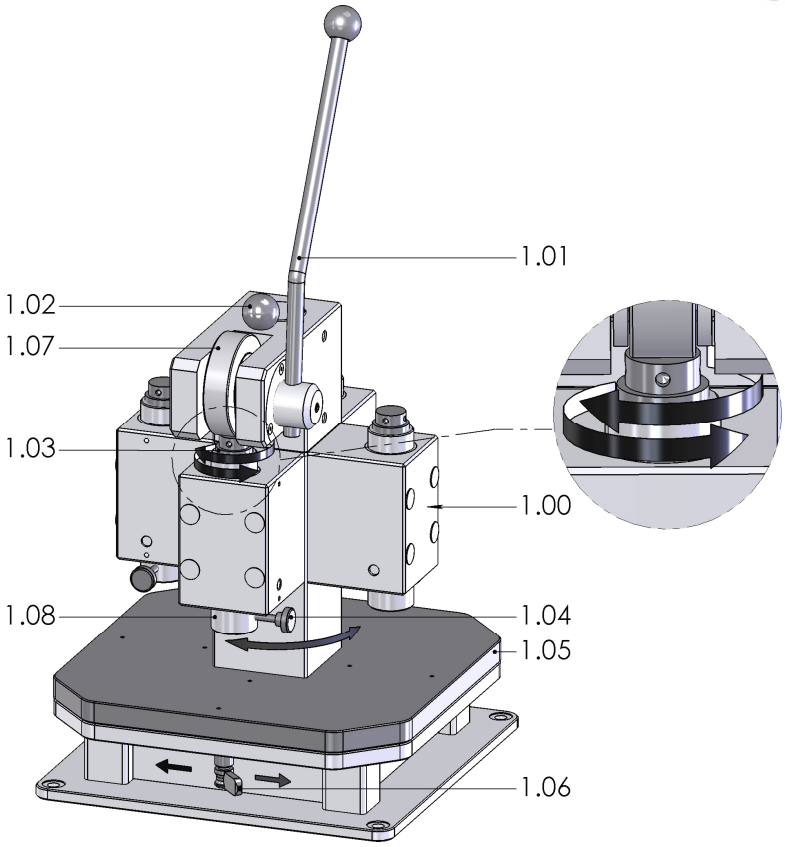


FIG. 8 INPUT OF CUTTING DEPTH

3.7 Dismounting of cutting die

Cutting die points forward, see "clicking of cutting position"

Pay attention that it clicks in again.

- Place a cutting mat onto supporting table in order to protect cutting die and supporting table from damage.

Don't grip under cutting die! There is a danger of injury at the blade of the cutting die!

- Hold cutting die by its side while you loosen knurled screw (1.04).
- Take cutting die out carefully.

4 EU Declaration of Conformity

EU – Konformitätserklärung
EU Declaration of conformity

Hersteller: Bareiss Prüfgerätebau GmbH
DAkkS/DKD-Kalibrierlaboratorium
Breiteweg 1
DE-89610 Oberdischingen

Hiermit erklären wir, dass das unten genannte Produkt in Deutschland hergestellt wurde und den Anforderungen der EU-Richtlinien entspricht.
We herewith confirm, that the below mentioned product was manufactured in Germany according to the European Community Directive.

Identifikation: **Stanzpresse SP 4000 II mechanisch**
Punching Press SP 4000 II mechanical

Oberdischingen, 02.01.2018

Ort / Datum

Manfred Maier
Verkauf / Sales

5 Technical data

cutting pressure	5 kN
cutting depth	max. 24 mm
throat	60 mm
supporting table	120 x 200 mm
dimensions of punching press (LxWxH)	330 x 330 x 450 mm
weight	50 kg

6 Volume of delivery

See delivery note

7 Accessories / spare parts

No. of article	Denomination
k68-00199	sharpening of cutting die
	different cutting dies on demand
	spare parts on demand
fm01077	3 cutting mats from hard carton

8 Trouble shooting

Problem	Cause	Solution
cutting die does not cut properly	cutting die is blunt	sharpening of cutting die by manufacturer
cutting die cuts cutting mat completely	cutting depth is too big	correction of cutting depth - see "adjustment of cutting depth"
cutting die does not cut sample completely	cutting depth is too small	correction of cutting depth - see "adjustment of cutting depth"

ⓘ If proposed measures have not been successful, please contact our address partners.

9 Conditions of warranty

The warranty period please take from our common business conditions (AGB).
(see www.bareiss.de)

⚠ There is no claim of guarantee for damages or faults caused by:

- inappropriate handling
- neglecting the operating instructions
- repair works on punching press by persons without authorization
- removing the type plates

10 Info for return of goods

Dear Customer,

we ask you to check the testing device before you return it to us because there could be e.g. a defect or malfunctioning.
If there are be some uncertainties we are glad to be of help for you by our telephone / fax / E-Mail service.

In order to avoid further questions please send us a precise fault description.

For **repair** the **testing device** should be sent in the **original wooden box.**

The **punching press** should be screwed tightly by the **transport protections.**

 "Installation of punching press" in reverse order.

A transport suitable packing protects from transport damages and thus resulting costs.

BAREISS PRÜFGERÄTEBAU GmbH
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Germany

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Fax: +49-7305/964222
info@bareiss.de
www.bareiss.de
www.bareiss-germany.com

11 Disposal

Environmentally sensible disposal of punching press.
Punching presses contain valuable materials which should be supplied to recycling or recovery.
Please dispose it at qualified collecting points separate from municipal waste.

12 Care

For cleaning of punching press only mild and inflammable cleaners should be used, in order to avoid damages of the surfaces of the electronic unit.
Alcohol, gasoline, diluents or other easily inflammatory substances may not be used for the cleaning or maintenance of the instrument.
The use of such substances can lead to fires.

13 Table of figures