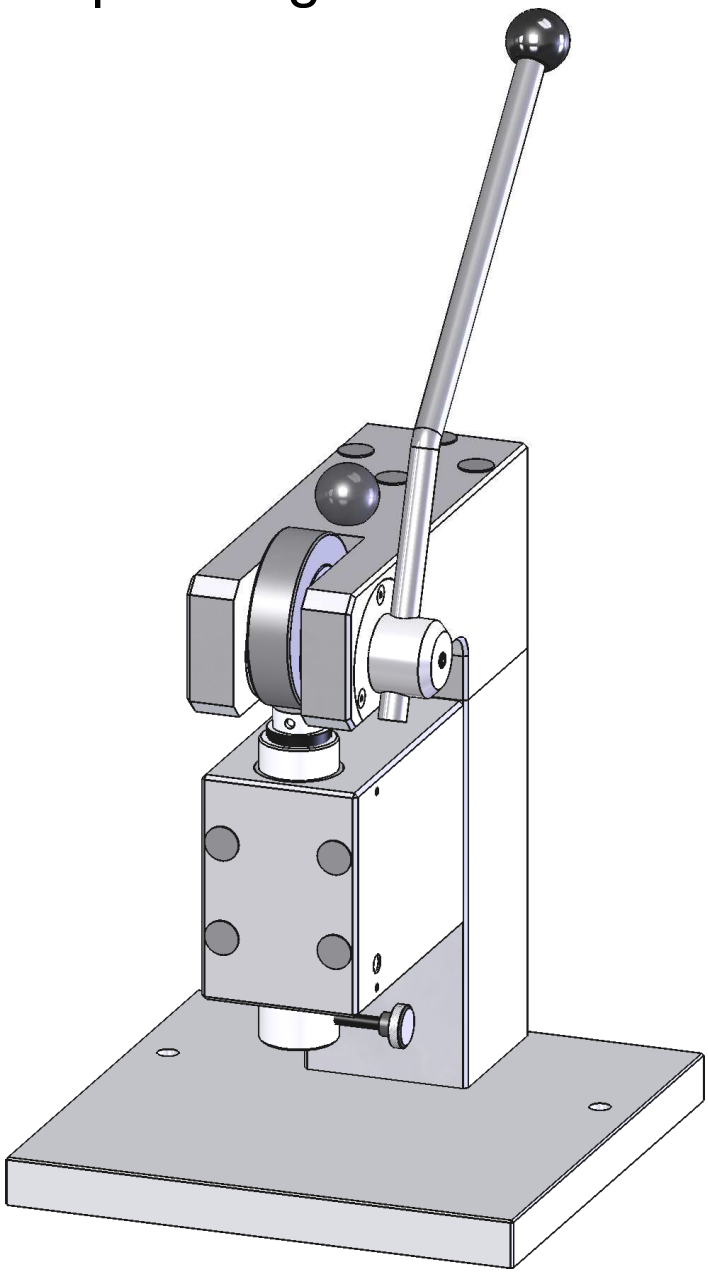
testing solutions since 1954

# Operating Instructions



## SP 1000 II

**Translation of original operating instructions**

Although the information contained in these operating instructions was controlled carefully for accuracy and completeness, no liability can be taken for errors or omissions.
These operating instructions may not be multiplied partly or completely in any kind or translated to another language without the previous written consent.
Keep for future application! Technical changes without notice!

# List of Contents

# 1 Safety Hints

While working with the punching press SP 1000 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 Applications

## 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 34-1 | tear test<br>trouser shaped sample | ≥100 | 2±0,2 |
| |  | ISO 34-1<br>ASTM D 624 | tear test<br>angle die C without nick | ≥100 | 2±0,2 |
| |  | ISO 34-1<br>ASTM D 624 | tear test<br>Crescent die B<br>without nick | ≥110 | 2±0,2 |
| |  | ASTM D 624 | cutting die A | 42 | |
| |  | ISO 34-2<br>ISO 816 | tear test<br>Delft sample with nick | 60 | nick 5±0,1 |
| *The data are without notice - further cutting dies on demand | | | | | |

# 3 Installation

## 3.1 Control of contents

Check supplied equipment for completeness and soundness.
See "Volume of delivery".

## 3.2 Installation of punching press

- Cut and remove packing tapes.

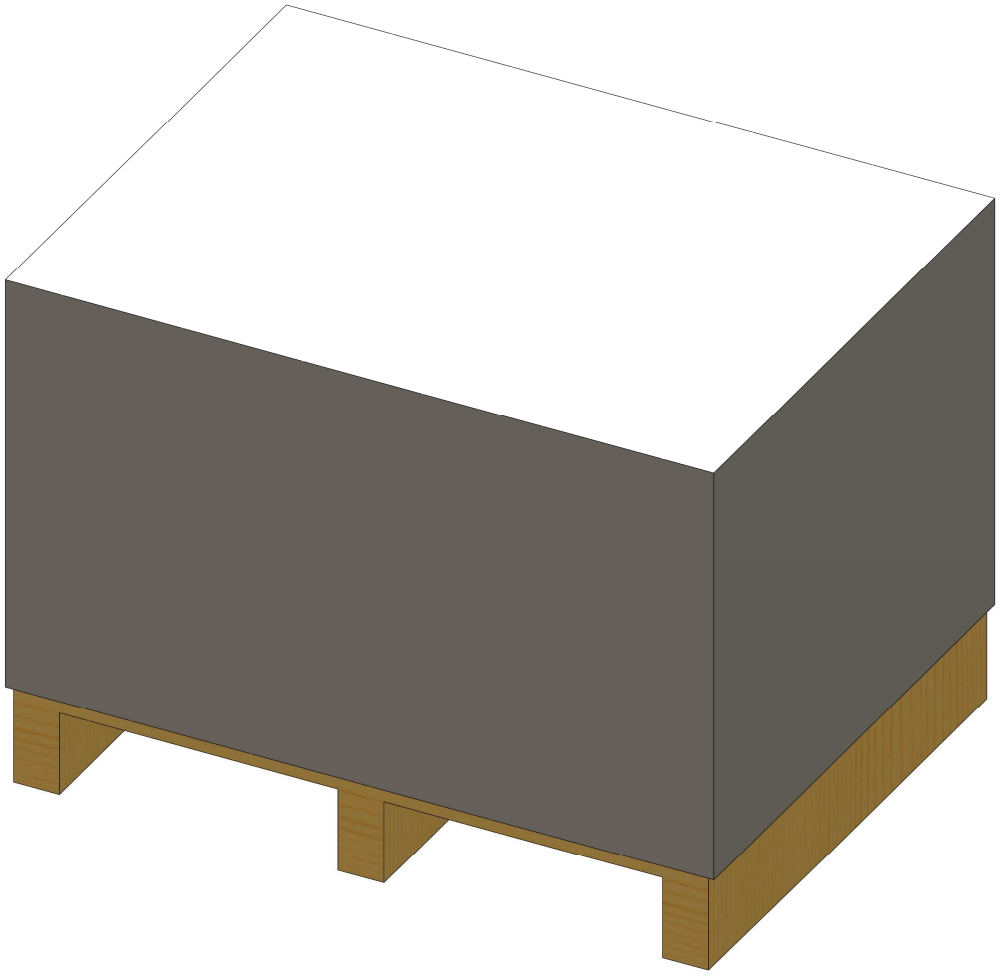


FIG. 1 REMOVING PACKING TAPES

- Pull up cardboard cover (2.01).

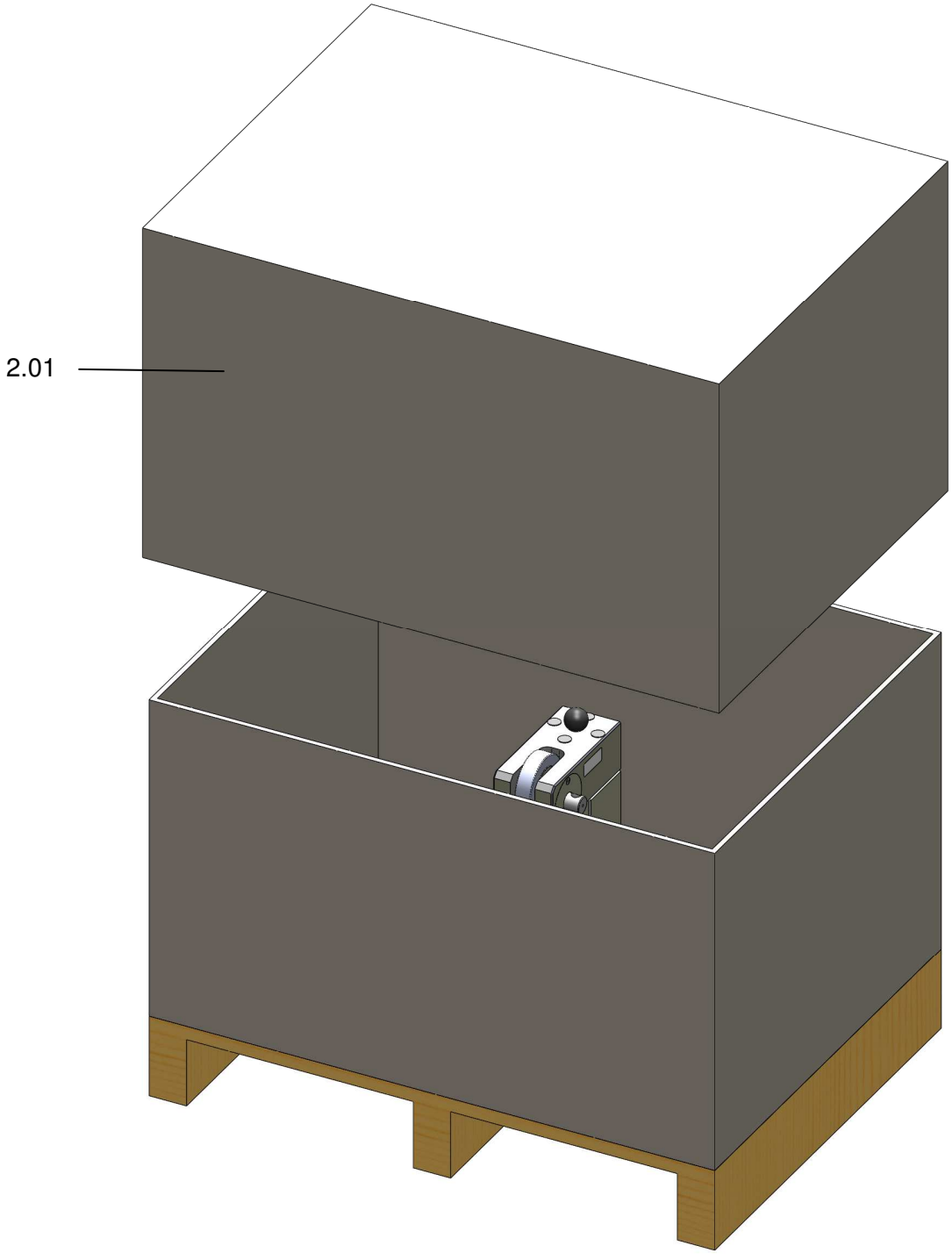



FIG. 2 PULL UP CARDBORAD COVER

- Loosen and remove the screws (3.01).

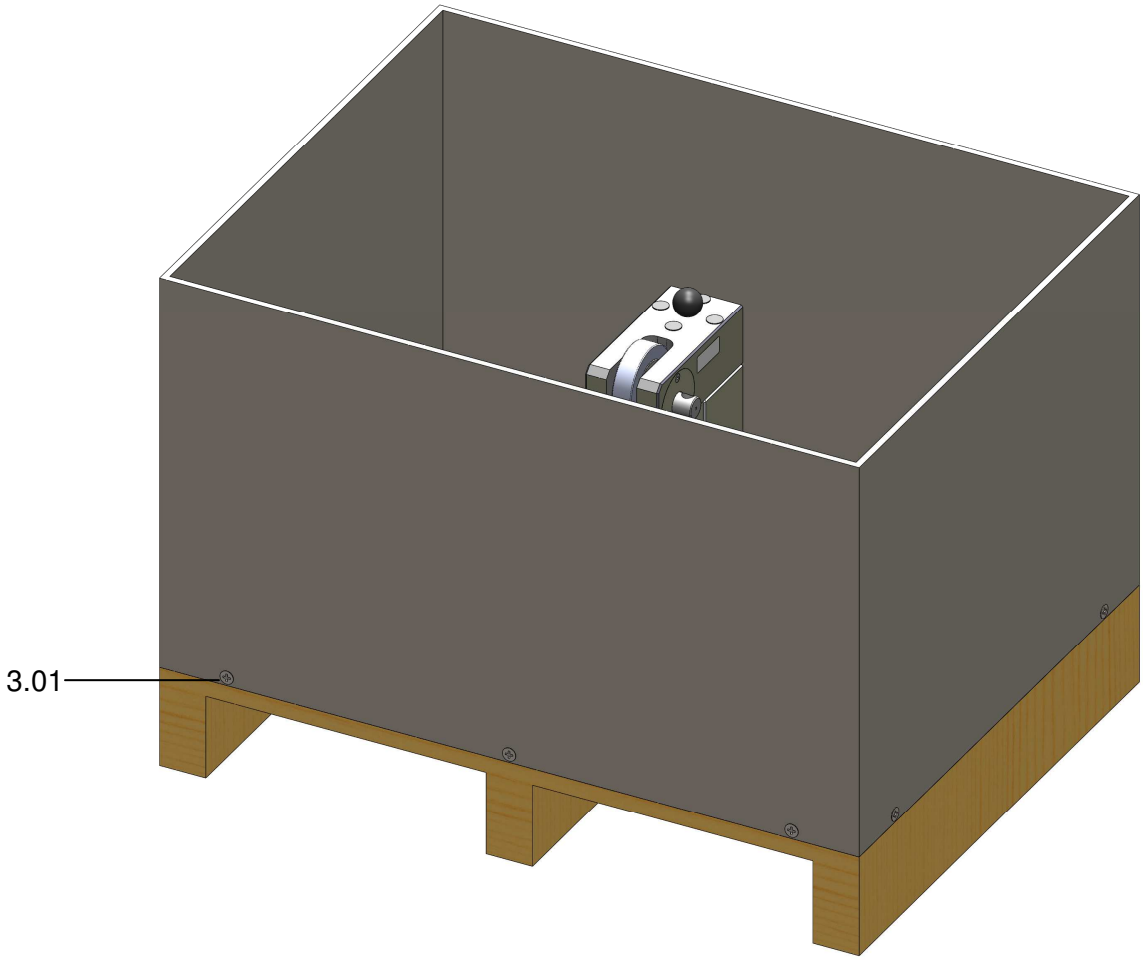



FIG. 3 REMOVING THE SCREWS

- Pull up cardboard (4.01).

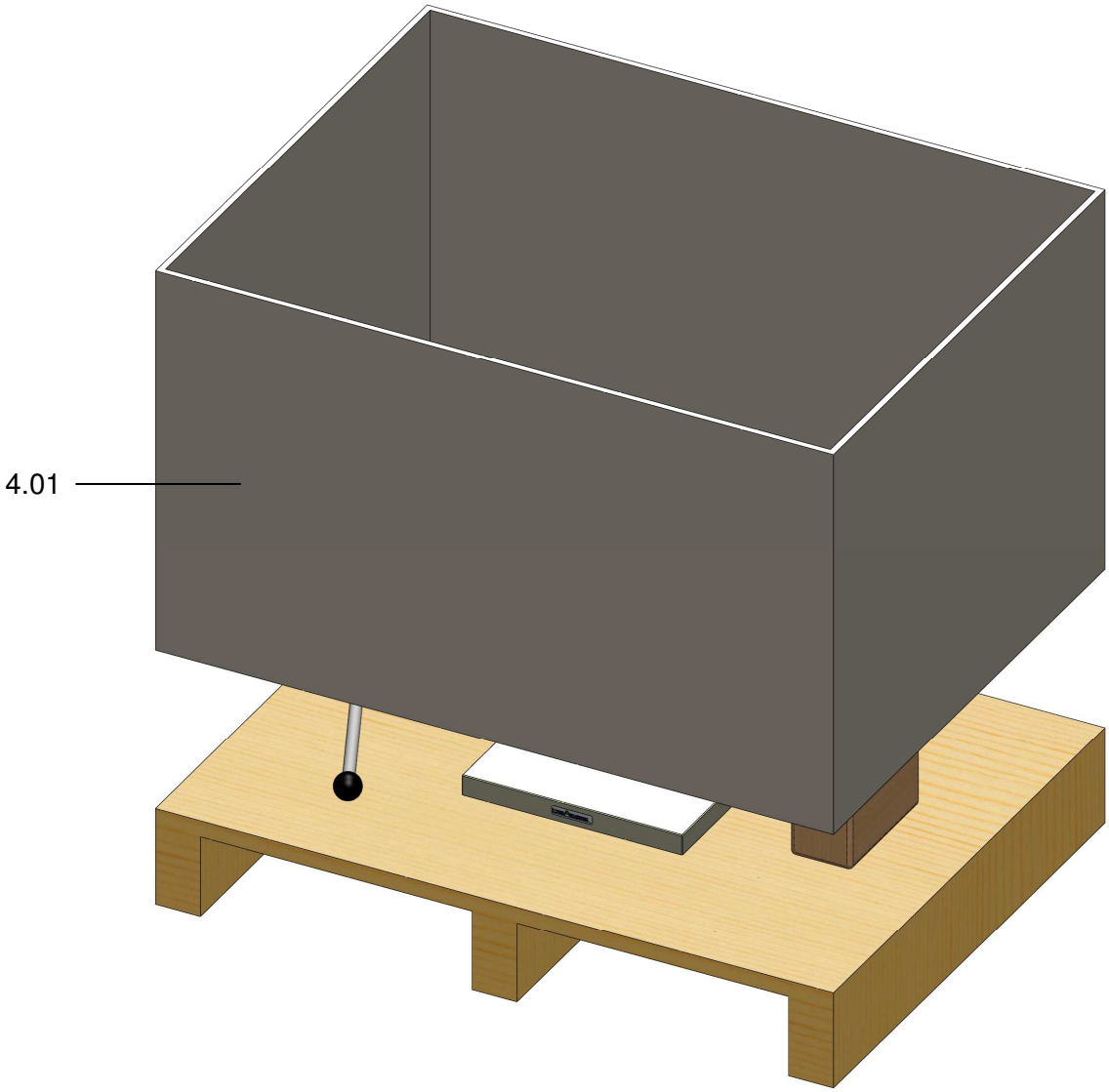



FIG. 4 PULL UP CARDBOARD

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

Mind your spine – weight approx. 20kg!

- Place cutting press on a stable base.
- Fix cutting press by screws.
- Cut and remove packing tapes of accessories

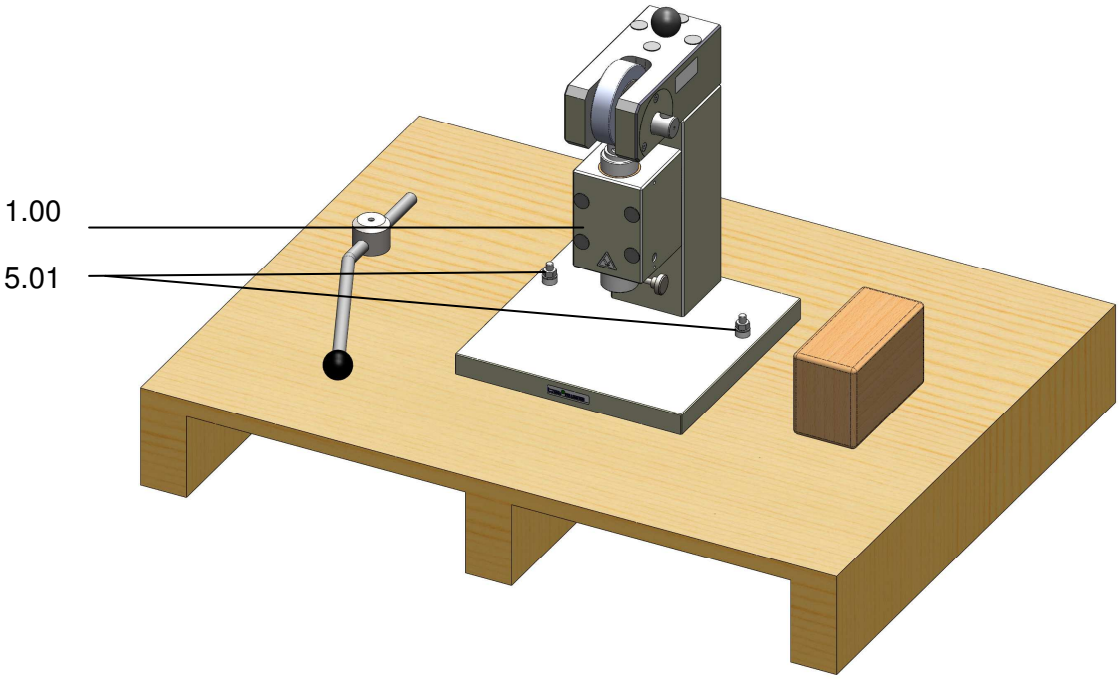



FIG. 5 RREMOVING TRANSPORT PROTECTION SCREWS

## 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.

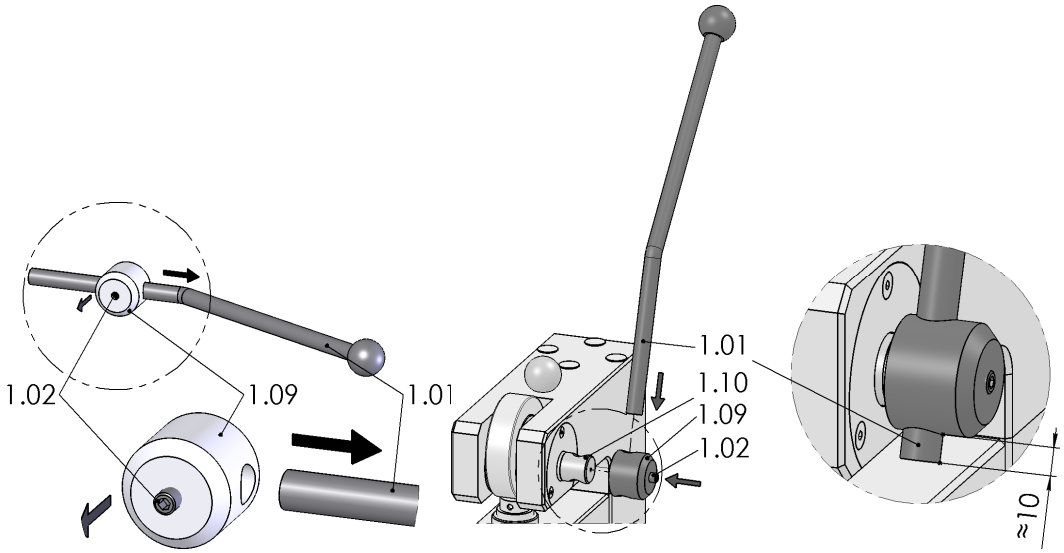



FIG. 6 ASSEMBLY OF HAND LEVER

## 3.4 Assembly of cutting die

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

- Hold cutting die (2.00) on its sides.

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

- Loosen knurled screw (1.03).
- Push cutting die into center sleeve (1.04) to its stop.
- Tighten knurled screw.

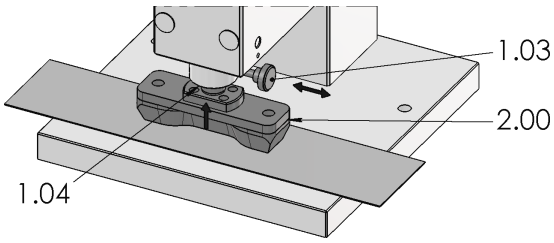



FIG. 7 ASSEMBLY OF CUTTING DIE

## 3.5 Adjustment of cutting distance

- Put cutting mat (3.00) onto supporting table (1.05) for protection purposes.

This cutting mat may not be cut completely.
The adjustment of the distance between cutting die and cutting mat must only be done without sample.

- Check cutting depth.

The adjustment pin (1.06) is in the holding fixture (1.08) of the column.

- Take out adjustment pin and adjust distance between cutting die and supporting table by rotating adjustment screw (1.07).

- bigger distance -> clockwise rotation of adjustment screw
- smaller distance -> counter clockwise rotation of adjustment screw

- Remove adjustment pin and push it into holding fixture of the column.

This procedure has always to be done when exchanging cutting die.

- Press hand lever (1.01) down completely.

Danger of injury! The hand lever has to be hold tide during the complete cutting procedure, because it is spring loaded and therefore it is under tension!

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

- Move hand lever back to its initial position.

Repeat adjustment procedure if no contour of cutting die is visible on the cutting mat.

Do not grip under cutting die!
There is danger of injury at the blade of the cutting die!

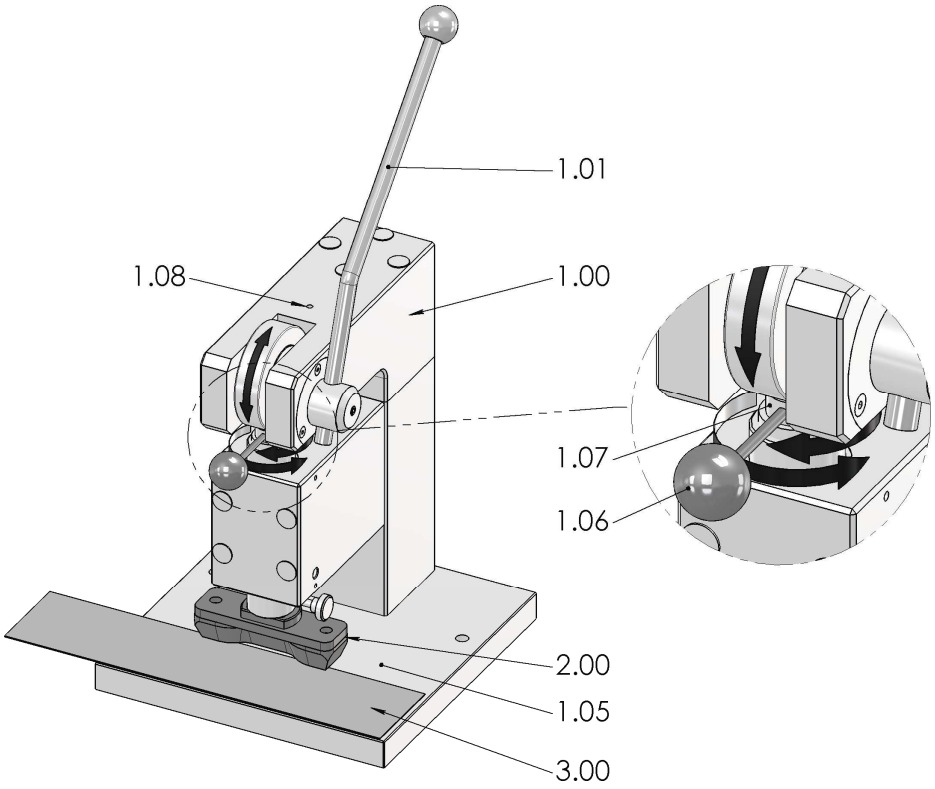



FIG. 8 ADJUSTMENT OF CUTTING DISTANCE

### 3.6 Cutting procedure

- Put material onto supporting table with cutting mat.
- Press hand lever down completely.

Danger of injury! The hand lever has to be hold tide during the complete cutting procedure, because it is spring loaded and therefore it is under tension!

The sample is cut out.

- Move hand lever back to its initial position.

The sample is ejected by ejector.

Do not grip under cutting die!
There is danger of injury at the blade of the cutting die!

### 3.7 Dismounting of cutting die

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

- Hold cutting die by its sides while loosening knurled screw.

Do not grip under cutting die!
There is danger of injury at the blade of the cutting die!

- Tear out cutting die carefully.

If this is not possible, the cutting die should be pivoted to the front.

## 4 Technical data

| | |
|---|---|
| cutting pressure | 5 kN |
| material thickness | max. 8 mm |
| lift | max. 24 mm |
| height adjustment of pick-up device | max. 10 mm |
| throat | 61 mm |
| supporting table | 270 x 270 mm |
| dimensions of punching press (LxWxH) | 270 x 270 x 600 mm |
| weight | 40 kg |

## 5 Standard volume of delivery

See delivery not

## 6 Accessories / Spare parts

| Number of article | Denomination |
|---|---|
| k68-00199 | sharpening and grinding of cutting die |
| | different cutting dies on demand |
| | different cutting knifes on demand |
| | different spare parts for punching press on demand |
| fm01077 | 3 cutting mats from fiber board |

# 7 Remedy

| Problem | Cause | Remedy |
|---|---|---|
| cutting die does not cut correctly | cutting die is blunt | sharpening and grinding of cutting knife by manufacturer |
| cutting die cuts cutting mat from fiber carton completely | the lift is too big | correction of the cutting distance<br>  „Adjustment of cutting distance" |
| lever is tight | there is not enough lubrication | oil exocentric of hand lever |

# 8 Conditions of warranty

The duration of the warranty please take from our common business conditions "AGB's" (see : www.bareiss.de)

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

- ignoring the correct connection
- inappropriate handling
- neglecting the operating instructions
- repair works on digi test by persons without authorization
- removing the type plates

# 9 Info about the 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.

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# 10 Disposal

Environmentally sensible disposal of electrical and electronic equipment
Electrical and electronic equipment contains valuable materials which should be supplied to recycling or recovery.
Please dispose of electrical and electronic equipment at qualified collecting points separate from municipal waste.

# 11 Care

For cleaning of Testing device you should only use smooth cleaning agents in order to avoid damaging the surfaces.
The cleaning cloth should be soft and lint free.
Alcohol, gasoline, diluents or other easily inflammable substances may not be used.
The application of such substances can lead to fires.

# 12 List of figures