

# TZ 300

## Assembly of lever press



### Description

- **GUNT course: engineering drawing**
- **lever press as assembly kit**
- **exercise for interdisciplinary teaching**

A drawing is the most important means of information and communication in engineering. The ability to read and understand drawings, graphics and schematics is a fundamental element in the development of professional competence in all engineering disciplines. Linking engineering communication to the associated technical operations such as assembly structure, work plans and manufacturing is just as important.

The TZ 300 assembly kit is an interdisciplinary and practical project. In addition to the primary learning area of "engineering drawing", it is also possible to deal with the topics of machine elements, assembly processes and in particular production engineering.

The assembly kit includes all single parts required to assemble a functional lever press. The parts are clearly displayed on a base plate. All single parts and the corresponding drawings are available in a standards-compliant and practical form.

The manufactured parts are precision-manufactured from original materials and with common tolerances and surfaces. The surfaces of the manufactured parts are burnished to prevent corrosion. All parts are clearly laid out and well protected in a storage system. Multiple storage systems can be stacked on top of each other, allowing space-saving storage.

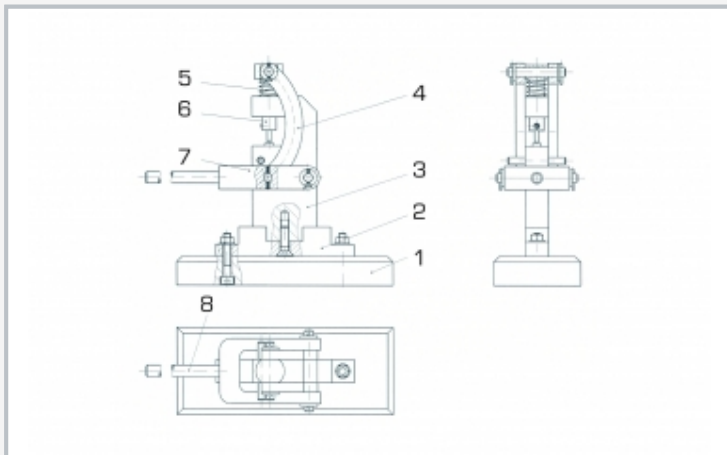
Usage in the classroom should ideally be as a practical exercise, in which two or three students can work comfortably on one assembly kit.

### Learning objectives/experiments

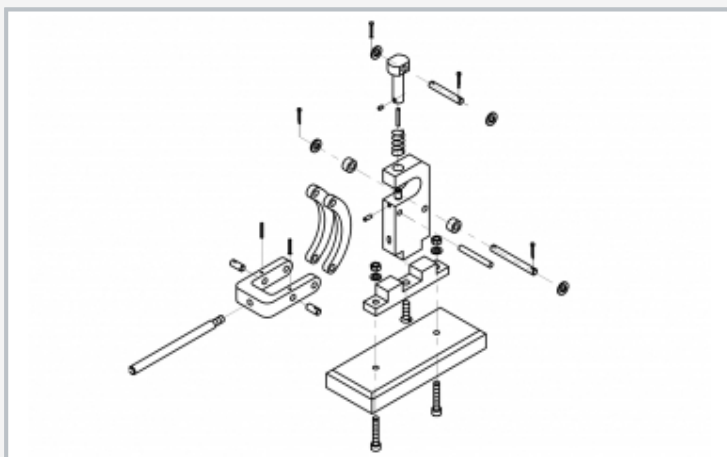
- introduction to engineering drawing
  - ▶ read and understand engineering drawings
  - ▶ three-dimensional display
  - ▶ sectional views
  - ▶ drawing types
  - ▶ 3D representation
  - ▶ lists of parts
  - ▶ dimensioning
  - ▶ surface and tolerance specifications
  - ▶ difference between standard and production parts
  - ▶ materials specifications
- planning and execution of simple assembly operations
  - ▶ plan and describe operations
  - ▶ evaluate results
- measuring exercises
  - ▶ longitudinal measurements
  - ▶ angular measurements
- manufacturing processes
  - ▶ working examples of handmade production and production on machine tools

# TZ 300

## Assembly of lever press



1 base plate, 2 foot, 3 stand, 4 arch, 5 compression spring, 6 pressure pin, 7 fork, 8 handle



Exploded drawing of the lever press



Functional groups of the lever press: fork, pressure pin, main body

### Specification

- [1] part of the GUNT course on engineering drawing
- [2] assembly kit of a functional lever press
- [3] all production parts of the lever press made from steel, precision-manufactured, burnished surfaces
- [4] storage system for parts
- [5] multiple storage systems can be stacked on top of each other
- [6] accompanying instructional material considers practical and interdisciplinary forms of teaching

### Technical data

LxWxH: 420x300x70mm (storage system)  
Weight: approx. 3kg

### Scope of delivery

- 1 storage system with the individual parts of the lever press
- 1 set of tools for assembly and disassembly
- 1 set of small parts
- 1 set of instructional material