

TZ 200.02

Engineering drawing: casting



Machined (left) and raw casting (right)

Description

- **GUNT course: engineering drawing**
- **from raw casting to finished machine part**

A bearing housing made from sand-cast aluminium is used in teaching as an example to illustrate the subject of cast parts in a detailed and practical way. TZ 200.02 comprises a raw casting of a bearing housing, manufactured and polished in a foundry, and a finished part of the same bearing housing, which has been machined after being cast. The machined part has also been prepared as a cutaway model.

The two components can be used to describe the process from forming to machining. An ideal learning situation would be to allow two or three students to study the model set together.

Learning objectives/experiments

- engineering drawing
 - ▶ cast drawings and their features: machining allowances, mould draughts, shrinkage, sectional views
 - ▶ from casting to finished part: production-based and standards-compliant dimensioning for the subsequent machining
- technology
 - ▶ manufacture of castings in sand casting; production processes
 - ▶ tool and machine selection; longitudinal measuring exercises
 - ▶ machine elements and their function

Specification

- [1] part of the GUNT course on engineering drawing
- [2] graphical representations: from raw casting to finished machine part
- [3] 2 models showing the development of the manufacturing process: 1 raw casting, 1 cutaway model
- [4] instructional material incorporates action-oriented and interdisciplinary forms of teaching

Technical data

LxWxH: 100x100x125mm (per model)
Weight: approx. 3kg

Scope of delivery

- 2 models
- 1 set of instructional material