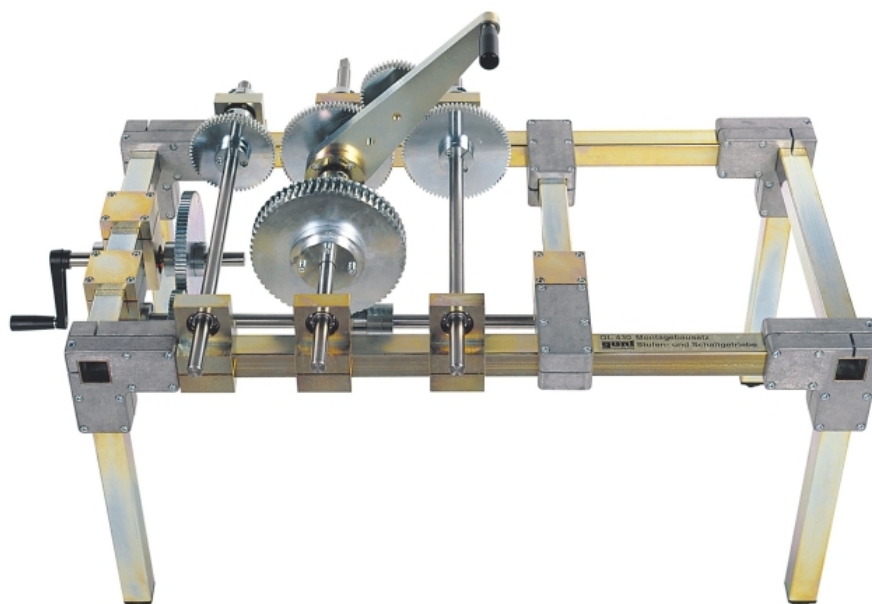


## GL 430

### Assembly control gear



#### Description

- flexible and robust assembly kit for continuing mechanical gear engineering
- uses industrial components to represent the real world accurately
- quick and simple assembly

Control gears are also known as variable or change gears. They are characterised by the fact that the speed is transferred differently via various pairs of gear wheels. The most famous example is the transmission in a car, which has one pair of gear wheels for each "gear".

The GL 430 unit provides different configurations of control gears, which serve as an introduction to gear engineering. The unit focuses in particular on the practical assembly of gear components.

The exercise system can be used to configure six different gears in various combinations. The setup of the components is flexible so that you can configure your own ideas and try out different gears.

Individual activities such as understanding the task and reading the drawing, assembling the components, adjusting, calibrating and checking the gear, and performing calculations are performed one after the other. The unit is driven by a hand crank. A solid frame made of square steel tubes and various bearings ensures sufficient accuracy to be able to set precise tooth interlocking. All components of the exercise system are ready at hand and securely housed in a storage system.

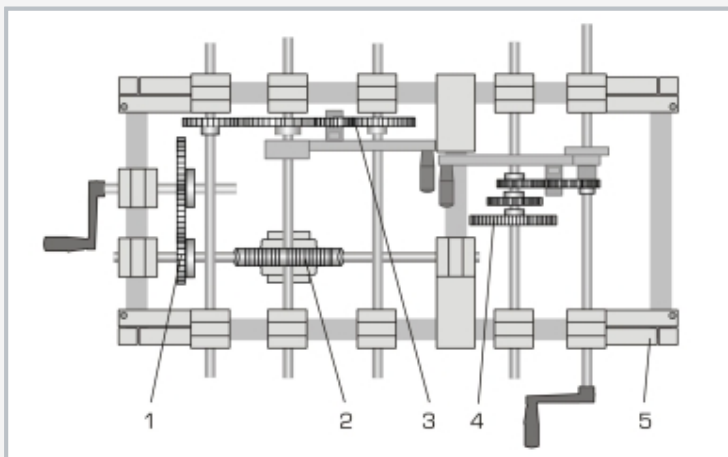
GUNT offers three assembly kits in this product range: from simple gears (GL 410) to combined gears (GL 420) and control gears (GL 430). Each assembly kit can be used completely independently of the other parts in the range.

#### Learning objectives/experiments

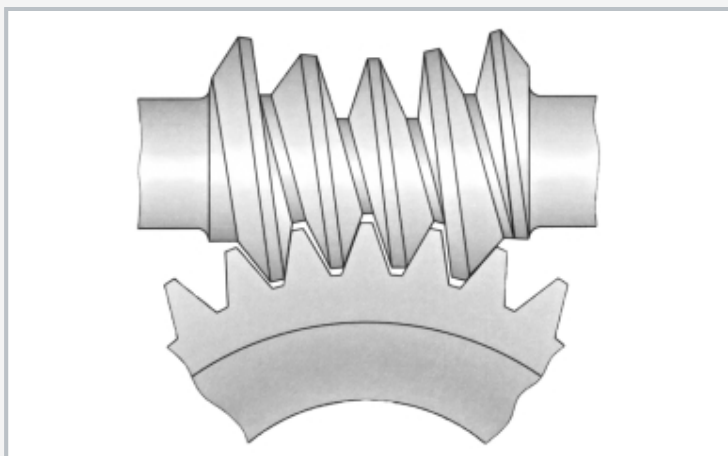
- familiarisation with main components and forms of mechanical gear engineering
  - ▶ step pulley gear
  - ▶ sliding gear drive
  - ▶ Norton gear
  - ▶ tumbler gear
  - ▶ change gear
  - ▶ cam box (tripping device for lathe)
- calculations on mechanical gears
- practical setup of different gears, associated with setup and configuration exercises
- read and understand engineering drawings, familiarisation with technical terms

# GL 430

## Assembly control gear



1 spur gear, 2 worm gear, 3 change gear, 4 Norton gear, 5 square steel tube frame



Worm gear

### Specification

- [1] assembly, demonstration and experiments with different control gears
- [2] step pulley gear
- [3] sliding gear drive
- [4] Norton gear
- [5] tumbler gear
- [6] change gear
- [7] cam box (tripping device for lathe)
- [8] driven by hand crank
- [9] uses industrial components
- [10] solid, universal frame made of square steel tube

### Technical data

#### Spur gears

- number of teeth:  $z=24, 30, 36, 40, 45, 50, 60, 76, 80, 95$
- module:  $m=2\text{mm}$

#### Worm gear

- worm
  - ▶ number of teeth:  $z=6$
- worm wheel
  - ▶ number of teeth:  $z=62$
  - ▶ module:  $m=3,15\text{mm}$

LxWxH: 1000x500x500mm (assembled frame)

Weight: approx. 80kg

LxWxH: 600x400x120mm (storage system)

LxWxH: 600x400x170mm (storage system)

### Scope of delivery

- 1 frame
- 1 set of bearings
- 1 set of gear components
- 1 set of tools
- 1 set of instructional material

# GL 430

## Assembly control gear

Optional accessories

WP 300.09      Laboratory trolley