



Four Bar Chain mechanism Apparatus (SMT-TM-02)

The four-joint link is a four-bar pivot gear. It converts rotary motion into oscillating motion. The SMT-TM-02 unit can be used to investigate the crank-rocker mechanism, the double rocker mechanism and the double crank. The experimental unit comprises the drive disk with the crank and coupling and the output disk with the rocker. The elements are connected to each other via pivot joints. The positions of the pivot joints can be varied to adjust the crank radius, oscillation radius and coupling length. The drive disk can be driven by the crank. The input angle is adjusted using the drive disk, and an angle scale is integrated into the base plate. The output angle is read at the angle scale on the output disk. The elements are mounted on a base plate. Two handles make it easy to carry and stack the unit.

TECHNICAL SPECIFICATIONS

Specifications:

- Investigation of a four-joint link.
- Adjustment of the crank radius at three positions of the crank on the drive disk.
- Adjustment of the oscillation radius at three positions.
- Adjustment of the coupling length at five positions.
- Adjustment of the input angle by turning the drive disk.
- Measure the output angle on the angle scale of the output disk.

Technical Data:

- Drive disk and output disk:
 - Anodised aluminium.
 - Ball-bearing mounted.
- Crank radius:
 - 25mm, 37.5mm, 50mm.
- Rocker:
 - Aluminium, Anodised black.
 - Oscillation radius: 50mm, 100mm, 200mm.
- Coupling:
 - Aluminium, Anodised black.
 - Length: 60mm, 160mm, 180mm, 200mm, 220mm.



Experimental Data:

- Investigation of the mechanical relationships on the four-joint link
- Investigation of the principle of the crank-rocker mechanism, double rocker mechanism and double crank
- Verification of the Grashof condition by varying the crank radius, oscillation radius and coupling length.