

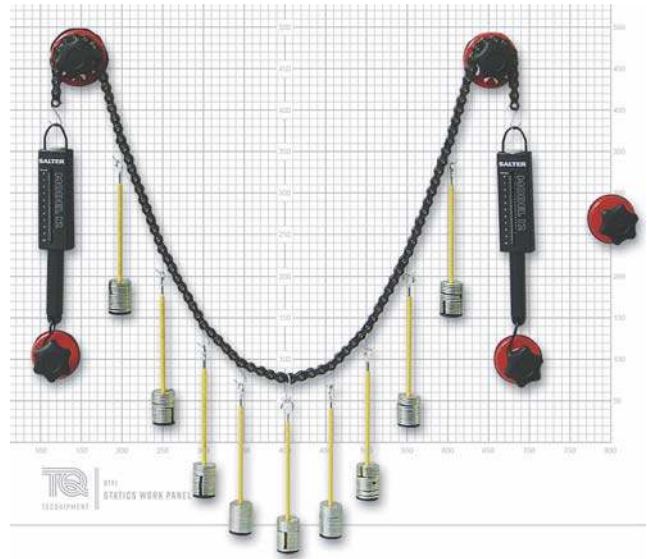
# SUSPENSION CABLE DEMONSTRATION

## STF2

Demonstrates the tensions and shapes in a suspension cable, comparing them with theory.

### LEARNING OUTCOMES:

- Analysis using catenary and parabola theory
- Cable weight and tension
- Comparison of a symmetrical suspension cable and catenary
- Unsymmetrical suspension cable
- A point load on a suspension cable



For use with the Work Panel (STF1), the kit allows several experiments with a suspension cable. Students or teachers fit the magnetic parts of the kit to the work panel to study or demonstrate the shapes and tensions in a suspension cable.

### ESSENTIAL BASE UNIT:

- Work Panel (STF1) 181

### ALTERNATIVE PRODUCTS:

- Simple Suspension Bridge (STR19) 197

# EQUILIBRIUM OF A RIGID BODY

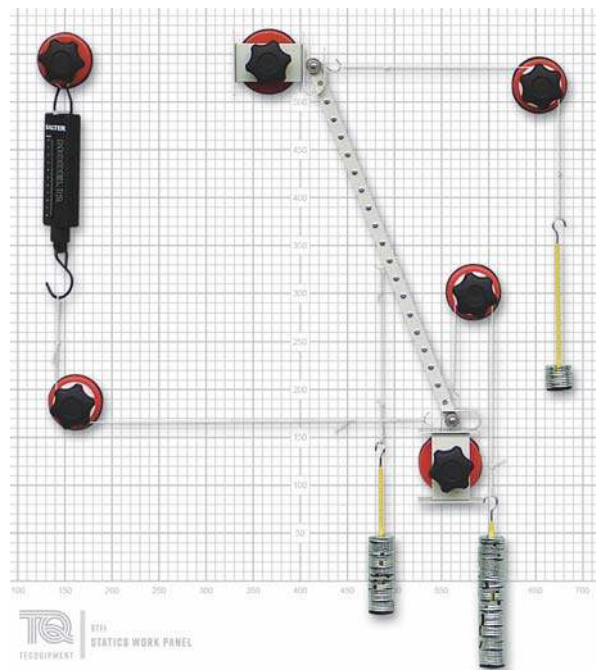
## STF3

Demonstrates the forces around a ladder-type structure.

### LEARNING OUTCOMES:

- Horizontal and vertical reaction forces on a ladder
- Safe angles for a ladder
- A climbing mass on a ladder
- A ladder at different angles

For use with the Work Panel (STF1), the kit allows several experiments with a rigid body – a ladder structure. Students or teachers fit the magnetic parts of the kit to the Work Panel (STF1) to study or demonstrate the forces around an inclined ladder-type structure.



### ESSENTIAL BASE UNIT:

- Work Panel (STF1) 181