



### **SPECIFICATIONS**

The laboratory set "Mechanics" is intended for use in general and secondary schools by teachers and students in course of performing frontal laboratory works and works of mechanics in physics workshop, in accordance to current training programs in laboratories and physics offices. Allows introducing students to the methods of the simplest direct measurements of linear dimensions, volume, mass, force, temperature and time intervals. This set is used in the following laboratory work:

- 01. Introducing with measuring instruments. Determination of the value of device scale interval
- 02. Measurement of the volume of solids, liquids, gases and bulk materials
- 03. Measuring of small bodies size in different ways
- 04. Measurement of time )clock, stopwatch, metronome(
- 05. Measurement of average body speed
- 06. Measurement of the object's average speed
- 07. Determination of acceleration of the object during equilibrium motion
- 08. Investigation of object movement on a circle
- 09. Measuring acceleration of free fall
- 10. Determination of the period of object rotation
- 11. Measurement of mass of object by weighing method
- 12. Determination of density of matter ) solids and liquids (
- 13. Determination of density of the object by hydrostatic method
- 14. Clarification conditions of navigation of the object
- 15. Force measurement
- 16. Measuring the rigidity of an elastic object
- 17. Investigation of the object's elastic properties
- 18. Construction of dynamometer
- 19. Determination the coefficient of slip friction
- 20. Determination of the object's braking distance and the coefficient of slip friction
- 21. Study of the condition of equilibrium of the level
- 22. Determination of the center of gravity of flat plates
- 23. Investigation the movement of the object thrown horizontally
- 24. Study of the law of conservation of mechanical energy
- 25. Definition of the efficiency of the inclined plane
- 26. Investigation of fluctuations of filament pendulum
- 27. Investigation vibrations of the object on the spring
- 28. Investigation of diffusion phenomena in liquids and gases

Note: Specifications are subject to change.

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#### **FEATURES**

- · calipers 1 pc
- Dynamometer 1 pc
- Drain pan 1 pc
- Kit of heavy loads (3 pc) 1 pc
- · Kit of heavy loads with hooks 3 pc
- · Blocks (block with axis of block) 1 pc
- · Spring 2 pc
- · Objects of equal volume 3 pc
- · Graduated glass 100 ml 1 pc
- Measuring cylinder 1 pc
- Collapsible scales 1 pc
- Mounting devices 1 pc
- · Axis of beam balance 1 pc
- · Clamping nut for scales 1 pc
- · Lock-nut for scales 2 pc
- · Adjusting nut for scales 2 pc
- · Scalepan arc 2 pc
- Lever 1 pc
- Rod 600 mm 1 pc
- Arrow 1 pc
- Double slider coupling 2 pc
- · Scalepan 2 pc
- · Cap screw 3 pc
- · Stopwatch 1 pc
- · Metal ball (steel) 1 pc
- Nylon cord 5 meters
- Electronic balance (maximum value not less than 0.2 kg, accuracy of 0.1 g, balance platform not less than 80 mm) 1 pc
- Box for transportation and storage with cradle 1.

### OPTIONAL EQUIPMENT

- Treadmill (chute) 1 pc
- Arc protractor 1 pc
- Disc to study the rotational motion 1 pc
- Rod 250 mm 1 pc
- Thermometer 1 pc
- Items of irregular shape 3 pc
- Rod 240 mm 1 pc
- Measuring cylinder 100 ml 1 pc
- Graduated glass 250 ml 1 pc
- Fixer 1 pc
- · A wooden bar with a rubber pad of three holes for heavy loads 1 pc
- · Flask with stopper 1pc
- Flask with stopper and sand 1 pc
- · Scale for weights 1 pc
- Blocks (block with axis of block) 1 pc
- Metal ball (aluminum) 1 pc
- · Lever 1 pc.

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