

## U30001 Resonance basin

### Operating instructions

1/03 ALF



The resonance basin is used to demonstrate stationary waves in a bronze bowl filled with water.

Weight: 2100 g  
Wooden box: 422 mm x 420 mm x 165 mm

#### 1. Safety instructions

- Ensure that there are no electrical appliances in the vicinity of the experimental set-up, as water splashes about the resonance basin during the demonstration.
- To avoid formation of rust, clean the resonance basin thoroughly after use.

#### 2. Description, technical data

The resonance basin dates back to the Chinese Song dynasty (960 – 1279). It consists of a large bronze bowl equipped with two handles. The bottom is decorated with four embossed fish from whose mouths engraved water fountains issue. Rubbing the handles produces a harmonic tone and a stationary wave in the four quadrants of the bowl. This, in turn, gives rise to actual fountains of water which can attain heights of 30 cm and more, making the fish appear alive. An anti-skid base is included in the scope of delivery.

Diameter : 380 mm  
Height: 150 mm

#### 3. Procedure

- Fill the bowl with water to a point approximately 0.5 cm beneath the engraved mark.
- Place the bowl on the anti-skid base.
- Moisten the palms of your hands with a little water.
- To produce oscillations, place the moistened palms of your hands on the handles of the resonance basin and rub them lightly.
- Continue rubbing the handles evenly and slowly, moving your hands in synchronization.
- After a short period, you will hear a harmonic tone and see resonance waves on the water surface.
- The tone should be of a low frequency. If not, slow down the rubbing motion.
- If you keep on rubbing, you will be able to produce water fountains up to 30 cm high in the four quadrants of the resonance basin.
- If the resonance basin fails to resonate, remove the oxidation layers from the handles (using steel wool or a saucepan cleaning pad, for instance).