

## Resonance Basin 1003206



### Instruction sheet

11/15 ALF

#### 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.

#### 2. Description

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

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 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, making the fish appear alive.

An anti-skid base is included in the scope of delivery.

Diameter:	380 mm
Height:	150 mm
Weight:	2100 g
Box:	422x420x165 mm <sup>3</sup>

#### 3. Operation

- Fill the basin with water to a point approximately 1 cm below the embossed mark and place it on an anti-skid base. Do not place the basin too high up or low down (rubbing needs to be done in such a way that the lower arm and the torso are at right angles to one another).
  - Polish the handles with steel wool or similar.
  - Wash your hands. They need to be completely free of grease (even the smallest amounts of grease on your hands can stop the experiment working).
  - To create vibrations, position your slightly dampened palms on the handles of the resonance basin and rub them slowly and evenly, moving your hands in synch.
- 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 the sound is high-pitched then simply rub more slowly.
  - If you keep on rubbing, you will be able to produce water fountains in the four quadrants of the resonance basin.
  - Dry the resonance basin thoroughly after use.

