



The Cartesian Diver - also called the Bottle Devil or Water Devil - is a hollow body filled with liquid and air that can serve as a toy or as a measuring device for the pressure in liquids. Named after its supposed discoverer, René Descartes, it was actually first described by Raffaello Magiotti in 1648.

Instructions for use

Put the Cartesian Diver into a bottle filled with water and close it with an elastic must cap (household goods). Alternatively, you can also use an elastic plastic bottle. Press firmly on the cider cap or the plastic bottle and the little devil starts to dive and dance. If the diver stays on the bottom, he has swallowed too much water. Shake or suck the water out of the tail opening.

Operating principle

By changing the pressure of the surrounding liquid and the resulting change in volume of the air in the diver, its density changes and it rises or sinks. For example, if the pressure in the surrounding liquid is increased, the air in the diver is compressed. As a result, the volume of air decreases (and liquid flows in). The weight of the glass and air remains the same, but the total volume becomes smaller, which reduces the buoyancy. If the weight is greater than the buoyancy, the diver sinks.