

Cartesian Diver 1002867

Instruction sheet

05/18 Hh



1. General notes

- Caution! Handle both the Cartesian Diver and the glass vessel carefully to avoid breakage and resulting injury.
- If the diver is kept in the water for a prolonged time use distilled water to prevent build up of algae.

2. Description

Handmade hollow glass figure with a small opening. Included in the scope of delivery is a rubber cap. Additionally required is a glass vessel with an outer neck diameter of approximately 30 mm to 40 mm e.g. 1002871 Glass cylinder.

3. Operating principle

The diver floats at the water surface in a glass vessel sealed with the rubber cap. If pressure is exerted on the rubber cap the air bubble inside the glass figure will be compressed and some water will enter. The diver becomes heavier and sinks to the bottom. If the pressure is removed the air will expand and water is expelled. The glass figure rises and turns around its axis caused by the recoil of the expelled water.

4. Operation

- Insert the diver head up into the glass vessel filled to the brim.
- Dry the neck of the vessel rubber cap carefully and close the vessel. Rubber cap must sit tight.

In case the diver does not sink there is too much air inside.

- For adjustment hold the glass vessel horizontally and press on the cap. Turn it a little more downwards. The diver should float in the neck of the glass vessel. Reduce the pressure slowly so that some air escapes from the glass figure and water can enter.

If there is too much water in the diver it will stay at the bottom of the glass vessel.

- In this case drain some water from the glass figure applying suction at the opening or put it into sunlight resp. on a radiator until some of the water is evaporated.