3B SCIENTIFIC® PHYSICS



U16050 Water jet pump

Instruction Sheet

6/03 ALF



The water jet pump is well suited for experiments in a low or coarse vacuum, in particular for introductory experiments in vacuum physics e.g. the Magdeburg hemispheres, density of air, buoyancy in air, boiling at reduced pressure, sound propagation in air/vacuum etc.

1. Safety instructions

- Before the water jet pump is put into operation check for damage and tight fit of seals (washers).
- When connecting the pump to the water tap do not use force while tightening the valve nut.

2. Description, technical data

The dismountable water jet pump consists of a plastic tube, in whose upper end 2 different connecting sleeves can be screwed in for connection to the water tap. The hose nipple located on the side is used to attach the experiment device. An integrated sleeve located in the pump under the air inlet serves as a non-return valve to counteract any water backlash.

Connection sleeves:

Valve nut R 3/4" for water tap with R 1/2" Valve nut R 1/2" for water tap with R 3/8" Suction capacity at a water pressure of 3 bar: 250 //h

- ① Connection sleeve
- ② Water jet pump
- ③ Sleeve
- ④ Valve nut
- 5 Washers
- 6 Hose nipple

| Final total pre | ssure at a water | |
|----------------------------------|------------------|-----------------|
| temperature of 15°C: | | approx. 15 mbar |
| Minimum water pressure required: | | 2 bar |
| Pump-out time for 5 / container: | | 6 up to 10 min |
| Length: | 24 cm | |
| Weight: | 50 g | |
| Material: | plastic | |

2.1 Scope of supply

- 1 Water-jet pump
- 2 Connection sleeves and valve nuts
- 2 Washers between the connection sleeves and the water tap
- 1 Washer between the connection sleeve and the jet nozzle
- 1 Sleeve (non-return valve)

3. Operation

- Before connecting the pump to the water tap check seals (washers) for leakage.
- Connect the water jet pump to the water tap.
- Establish a connection to the experiment device or the receptacle.
- Turn the water tap on full.

Additionally required: Vacuum tube e.g. U10140