

NEGATIVE PRESSURE AT THE ATOMIZER

MED 19.02



Material:

Item Code	Qty	Description
DM740-2Z	1	Atomizer
C7445-5S	1	Hose, silicone, D=5/8 mm, L=100 cm
C7445-3S	1	Hose, silicone, D=3/6 mm, L=100 cm
DE722-2D	1	Manometer, differential, "inno"
P3120-4A	1	L-shaped assembly platform

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Purpose

Detection and measurement of the negative pressure that occurs with an atomizer.

Preparation

- the assembly platform is placed on the table
- we attach the Manometer, differential, "inno" to the assembly platform
- the short piece of the hose 5/8 mm is connected to the thick tube of the atomizer
- the thin tube of the atomizer is connected to the barometer by means of a thin hose 3/6 mm
- the measuring range on the manometer is set to „100 hPa“

Experiment 1

The differential manometer is switched on and the display is reset to zero.
We blow into the hose as hard as possible.

Result

Maximum pressure measured on the Manometer: hPa

Experiment 2

We blow into the atomizer several times with different force.

Result

The more force is blown into the atomizer, the higher is the negative pressure at the Manometer.

Additional suggestions for experiments

If there is a large syringe without a pump available in the laboratory, you can also blow on the atomizer with these instruments – higher pressure could be created with this.

Note

A negative pressure of 1 hectopascal corresponds to the pressure of 1 cm water pillar.