ATOMIZER

MED 19.01

Material:

Item Code	Qty	Description
DM740-2Z	1	Atomizer
C7445-5S	1	Hose, silicone, D=5/8 mm, L=100 cm
C1010-1D	1	Beaker glass, 250 ml, tall form, Boro
P7050-1A	1	Powder dye, red
P3120-4A	1	L-shaped assembly platform
C7205-1A	1	Test tube holder, wooden, 10 - 30 mm
	1	Sheet of paper

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Purpose
Demonstration of an application of negative pressure in places of high flow velocity

Preparation
- the assembly platform is placed on the table
- a sheet of paper is placed in front of the assembly platform and fixed with the test tube holder
- the beaker is nearly completely filled up and positioned 15 cm before the sheet of paper
- a short piece of the hose is connected to the thick tube of the atomizer

Experiment
The thin tube of the atomizer is completely immersed in the water.

We blow into the hose as hard and as long as possible. In doing so, we pay attention to the atomizer's ascending pipe (the thin pipe) and the sheet of paper.

Result
The strong blowing creates a negative pressure (suction) at the upper end of the ascending pipe.

This causes the liquid in the beaker to be sucked up. Droplets of this liquid are carried away by the air particles, which results in atomization.

Practical relation
Use on perfume bottles or to atomize paints and other substances that are to be applied to a surface.

Atomized water has a large and rapid cooling effect due to the large total surface area of the fine droplets and is therefore also used in firefighting.

A spray is an atomizer with propellant gas. Air compressors are used to atomize larger quantities.