



### 1D52.17/2C50.30 Tornado Tube

To show that a vortex can be formed by centripetal force.

**DESCRIPTION** A "tornado tube" is formed by filling a bottle with water, inverting a second bottle over the first, and sealing them together at the mouths to form an hourglass-shaped device. When the tube is swirled and then flipped, water drains smoothly into the lower bottle while a standing vortex forms in the upper bottle.

#### SUGGESTED TECHNIQUE

1. Swirl the tornado tube vigorously through a few rotations.
2. Turn the tube upside down. Note the vortex in the upper bottle and the continuous stream of water flowing into the lower bottle.

#### TECHNICAL DETAILS

##### *LOCATION OF APPARATUS*

EQUIPMENT	LOCATION
Tornado Tube	Fluids

##### *LOCATION OF COMMON ACCESSORIES*

##### *SETUP INSTRUCTIONS*

*Setup Time ~15 min*

1. Provide the tornado tube.

#### ADDITIONAL RESOURCES