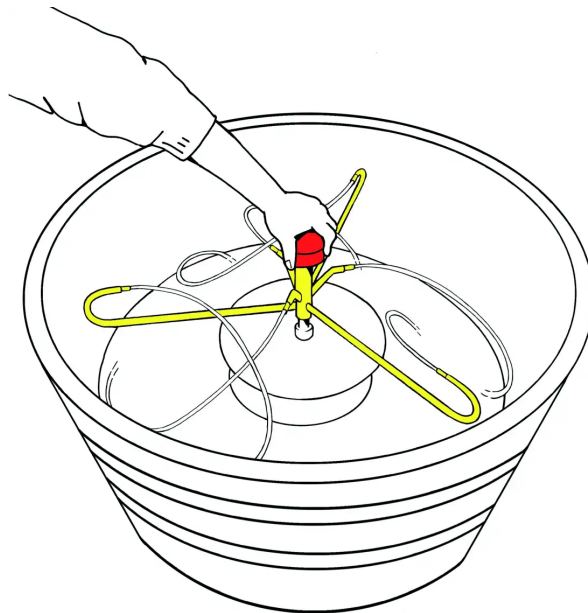


Coriolis fountain

In which direction are the water jets deflected when you rotate the water carousel?



Rotate the water carousel using the rotating knob.

Observe in which direction the water jets are deflected.

What did you expect?

When turning the carousel counterclockwise, both water jets are deflected from their direction to the right. Initially, this seems surprising for the jet that is spraying inwards. However, the circular movement of the carousel is faster on the outside than it is on the inside. As soon as the water leaves the nozzle, it maintains its rotation speed and "overtakes" the supply pipe, which also continues to rotate. This combination of circular and straight motion is called Coriolis force.

Something similar happens on earth. The earth rotates counterclockwise as seen from above the North Pole ("the sun rises in the east"). In the Northern Hemisphere, winds are therefore deflected to the right by the earth's rotation, creating the westerly winds that are prevalent in our region.