

Segment V5.4

Force Due to a Water Jet

[Click image to view video](#)

**(Related to Textbook Section 5.2.2 -
Application of the Linear Momentum
Equation)**

A jet of fluid deflected by an object puts a force on the object. This force is the result of the change of momentum of the fluid and can happen even though the speed (magnitude of velocity) remains constant.

If a jet of water has sufficient momentum, it can tip over the block that deflects it. The same thing can happen when a garden hose is used to fill a sprinkling can. Similarly, a jet of water against the blades of a Pelton wheel turbine causes the turbine wheel to rotate.