Example

A jet of water impinges a circular plate ($D = 10$ cm) with a velocity of 25 m/s. Calculate

(a) the force F required to hold the plate stationary, and
(b) the force on the front of the plate at the water/plate interface.

V_2

$P_{atm} = 100$ kPa

$V_1 = 25$ m/s

$F = ?$

$A = 500$ mm^2

V_2