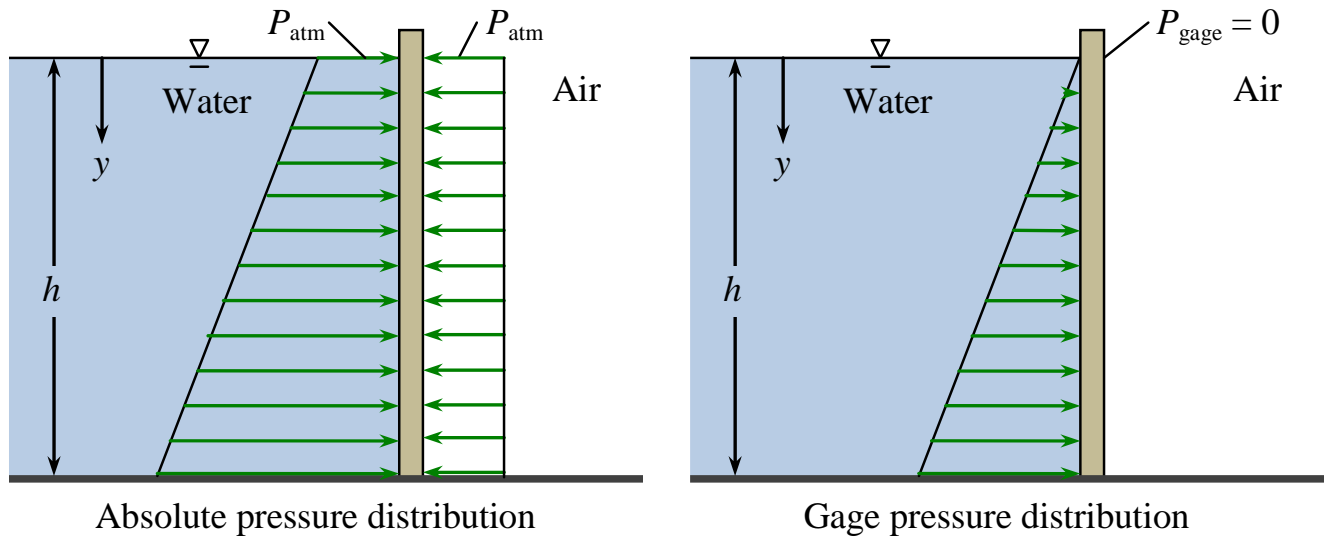


Today, we will:

- Discuss hydrostatic forces on submerged surfaces
- Do some example problems – hydrostatic forces on submerged surfaces

E. Hydrostatic Forces on Submerged Surfaces**1. Plane (flat) surfaces**

Example – the vertical wall of a rectangular container with a liquid in it.



Example: Force on a submerged gate

Given: A rectangular gate of height b and width a (into the page) holds back water in a reservoir. (The gate can swing open to let some water out when necessary.) The height from the water surface to the hinge is s .

To do: Calculate the resultant force on the gate and its location.

Solution:

