General goal: get familiar with the code: where does what?

**Problem 5**

In this tutorial, you will use the algebraic slip model to simulate the bubbly flow.

The bubble column has height and width of 0.45 m and 0.2 m, respectively. The gas is fed through a 24 mm nozzle, which is located at the column bottom center. The bubble diameter is set to 2 mm, and the slip velocity is set to 20 cm/s.

Note that the implementation at *asm.m* is as sketched below.



1. Implement the no-slip boundary condition at the walls.
2. Implement the free slip boundary condition at the outlet.
3. Specify gas inlet velocity (*U\_IN=0.096 m/s*) and inlet gas volume fraction (*ALPHAIN=0.05*). You can also vary these values for different simulations.