

## Re: Beginner's Question about Bernoulli and Tanks

*Source:* <http://sci.tech-archive.net/Archive/sci.physics/2005-02/5696.html>

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PD wrote:

- > *I'm guessing that the problem has a hole in the side of the tank*
- > *somewhere near the bottom, and they're asking about the speed of the*
- > *fluid coming out of the hole.*

Yes.

- > *What you need to consider in this case is the pressure that is*
- pressing*
- > *on the top surface of the water (1 atm if an open tank), and the*
- > *pressure that is pushing on the water at the hole (1 atm if it's the*
- > *atmosphere that's pushing on the water there).*

Supposedly, this is what happens. However, I thought that fluid pressure under the atmosphere is  $p = p(0) + (\text{density})(g)(h)$ . IOW, pressure under the surface is the sum of the pressure at the surface \*plus\* the weight of the fluid above point p.

How, then, do the two pressures in the open tank cancel?

BTW, thank you to all the folks who took the time to help out.