

Craft Brewers Conference 2022 Seminar – Question & Answer
Draught Beer Quality Workshop: Demystifying Dispense Gas

QUESTION	ANSWER
WHAT IS THE REASON BEER ON TAP GETS FLAT OVER TIME SOMETIMES? OR DOES IT GET TOO CARBONATED? WHAT DOES THAT HAVE TO DO WITH PEOPLE IN AN EXHIBITION?	When beer is trapped in polyvinyl line, two things occur at the same time: air diffuses into the beer in that section, and carbon dioxide diffuses out, so beer in those sections would get “flatter.” But if beer sitting in the line gets warm, that causes CO2 to separate out. The presentation describes calculations and cites particular tables in the draught dispense book that present parameters to maintain beer at target carbonation. Now none of this has anything to do with “Immersive Van Gogh” that Ken described and used as his model. It is very nice that Ken took his mother to the immersive experience, and in that time, he developed his idea for a model of CO2 molecules.
CAN YOU TREAT VERTICAL AND HORIZONTAL PSI VALUES LIKE PYTHAGOROUS TO FIND A SLANTED LINE’S PSI VALUE? OR IS IT RECOMMENDED TO AVOID INSTALLING SLANTED LINES?	Slanted lines are fine but for computations you really need to separate the ‘rise’ and the ‘run’...whereas the rise is the vertical “lift” to overcome at 0.5 psi/vertical ft and the ‘run’ is overall (actual) distance of the actual line.
ON AN 8 FOOT RUNNING USING 3/8 ID VINYL DO WE ACTUALLY NEED REDUCTION TO 3/16? WHAT ABOUT 1 MAN/4 INCH?	Let’s assume the carbonation level is 2.7 vols carbonation, ok? And that the beer is at 40 deg F, ok? Table 3.2 (pg. 38) tells us we must retain 14.6 psig in the beer in the line to maintain target carbonation. Because Table 4.1 tells us that 3/8 in polyvinyl offers as resistance 0.2 lbs/ft...that means 8 ft of line provides 1.6 psig resistance. We need to add more resistance so as to equal 14.6 psi, and this is readily accomplished with tight jumper of 3/16...where (for polyvinyl) resistance is 3 lbs/ft. So, by making a jumper that is about 4.5 ft long and attaching it to the 8 ft section via a coupler, we get the balance. <i>IT IS NEEDED.</i>