



SDO Gas Blending Reference Sheet

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Partial Pressure Fill Formula

Step 1 - Determine the pressure of Oxygen you WANT = _____ psig

Step 2 - Determine the pressure of Oxygen you HAVE = _____ psig

Step 3 - Subtract Step 2 from Step 1 to get
the pressure of Oxygen you NEED = _____ psig

Step 4 - Divide answer in Step 3 with total
pressure needed to fill the tank = _____ (fraction)

Step 5 - $\frac{\text{Step \#4}}{T_{FN_2}^*} \times \text{Total Pressure Needed} = \text{PSIG of Pure O}_2 \text{ to add}$
to Fill the Tank

Step 6 - Top with Air or the Top up mix

* T_{FO_2} and T_{FN_2} are the fraction of Oxygen and Nitrogen in our Top up Mix

Continuous Flow Blending

Step 1 - Determine the pressure of Oxygen you WANT = _____ psig

Step 2 - Determine the pressure of Oxygen you HAVE = _____ psig

Step 3 - Subtract Step 2 from Step 1 to get

the pressure of Oxygen you NEED = _____ psig

Step 4 - Divide answer in Step 3 with total

pressure needed to fill the tank = _____ (fraction)

Note: If the fraction in Step 4 is .4 or less than the cylinder may be entirely filled with an EANx blend equal to that fraction.

Example: Step 4 = .38 than the Cylinder should be filled with EAN38

If Step 4 is higher than .4 you will need to partial pressure fill.

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