



SDO Gas Blending Reference Sheet

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Bleed-Off Formula

- C_{Phave} = The cylinder pressure after we finish bleeding it down
- F_P = The final cylinder pressure after we finish filling it
- F_W = The FO₂ that we WANT in our tank
- F_H = The FO₂ that we HAVE in our tank
- P_T = The FO₂ in our Top Up Mixture

$$C_{P\ have} = \frac{F_P \times (F_W - P_T)}{F_H - P_T}$$

Pre-Mix Blend Formula

- P_B = The pressure (psig) of the pre-mix bank we add
- P_N = The total pressure of Oxygen we need to add (Step #3 of our partial pressure fill formula)
- F_T = The FO₂ in our Top-up Gas (Usually Air - .21)
- P_A = The total pressure of all the Gases we NEED to add to the Cylinder
- F_B = The FO₂ in our Pre-Mix Blend (Usually EAN40 - .40)

$$P_B = \frac{P_N - (F_t P_A)}{F_B - F_T}$$

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