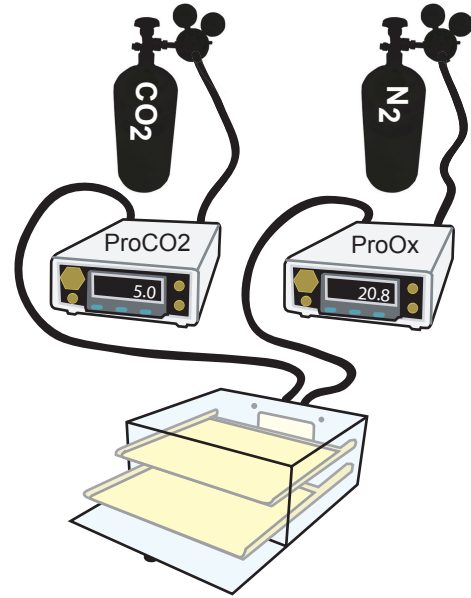
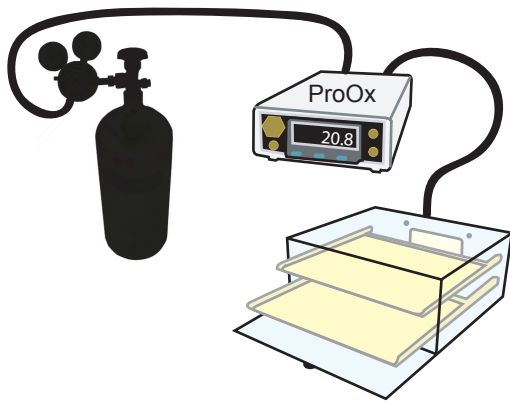


# The ProOx/Chamber works great for Oxygen, what about CO<sub>2</sub>?



If you know what Oxygen level you will be controlling at, and you will never need to change it, then you can control CO<sub>2</sub> indirectly as a function of your O<sub>2</sub> setpoint. To do this you will have to order a specially prepared tank containing a mix of CO<sub>2</sub> in N<sub>2</sub>.

With any given O<sub>2</sub> setpoint it is possible to calculate how much the mix will be diluted once you have reached your O<sub>2</sub> setpoint. Order the correct amount of CO<sub>2</sub> in N<sub>2</sub> and your CO<sub>2</sub> level will end up at your desired setpoint most commonly 5%.

This system works for some applications, but every time you need to change your Oxygen setpoint you will have to order a new specialized mix of CO<sub>2</sub> in N<sub>2</sub>. These special tank mixtures are very expensive compared to straight gas and often take a long time to get.

		Desired CO <sub>2</sub> Concentration		
		3%	5%	7%
O <sub>2</sub> Setpoint	0.1	3.01	5.02	7.03
	0.5	3.07	5.12	7.17
	1.0	3.15	5.25	7.35
	2.0	3.32	5.53	7.74
	5.0	3.95	6.58	9.22
	10.0	5.78	9.63	13.48
	15.0	10.76	17.93	25.10

A moderate decrease in system cost seldomly outweighs the cost of ordering mixes, storing and attaching new tanks. For this reason our ProCO<sub>2</sub> system is more popular. However if you had the right application the ProOx mixed gas system can provide a significant decrease in startup costs.

The most popular option is independent CO<sub>2</sub> control using the ProCO<sub>2</sub>. The ProCO<sub>2</sub> is very similar to the ProOx, containing a CO<sub>2</sub> sensor in place of the Oxygen sensor.

Controlling CO<sub>2</sub> independently of Oxygen allows you to change O<sub>2</sub> setpoints freely without affecting the CO<sub>2</sub> levels.

Using the ProCO<sub>2</sub> along side your ProOx allows you to manually fluctuate your setpoints without worrying about ordering, storing and attaching the tanks.

Gas supplies are economical and much easier to get. An increase in cost up front is easily offset by long-term savings.

	Option One	Option Two
O <sub>2</sub> Setpoints	One	Any 0.1-99.9
Gas Costs	High	Low
Gas Delivery	Slow	Fast



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