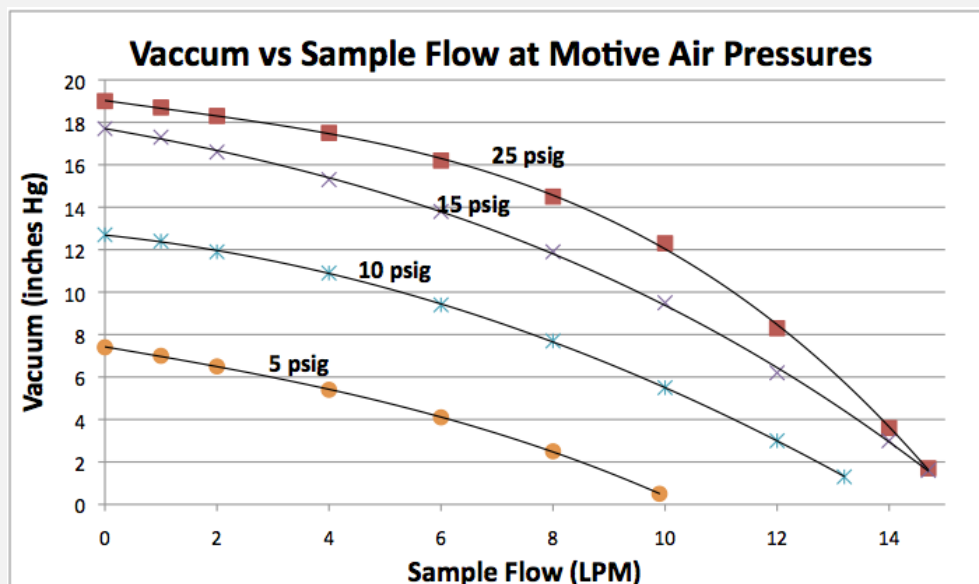


Venting To a Back Pressure

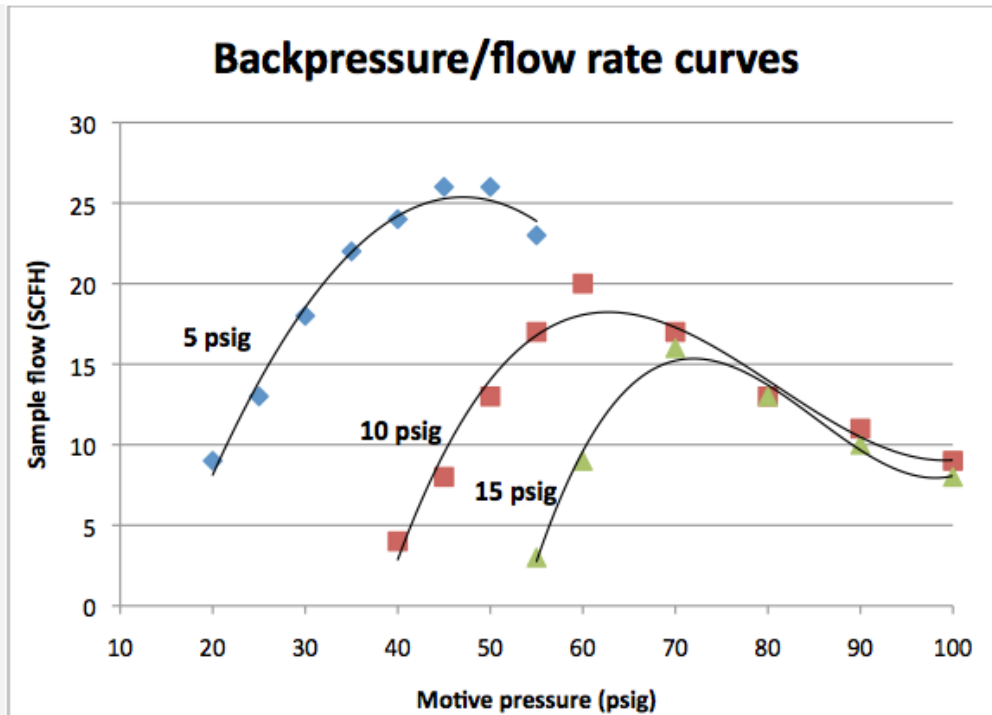
Motiv-Air-Torr venting to atmospheric pressure

For a large percentage of applications the exhaust is vented to the atmosphere. The performance curves of the Motiv-Air-Torr are illustrated below. The illustration shows typical vacuum for sample flows given at several motive air pressures (5, 10, 15, 25 psig).



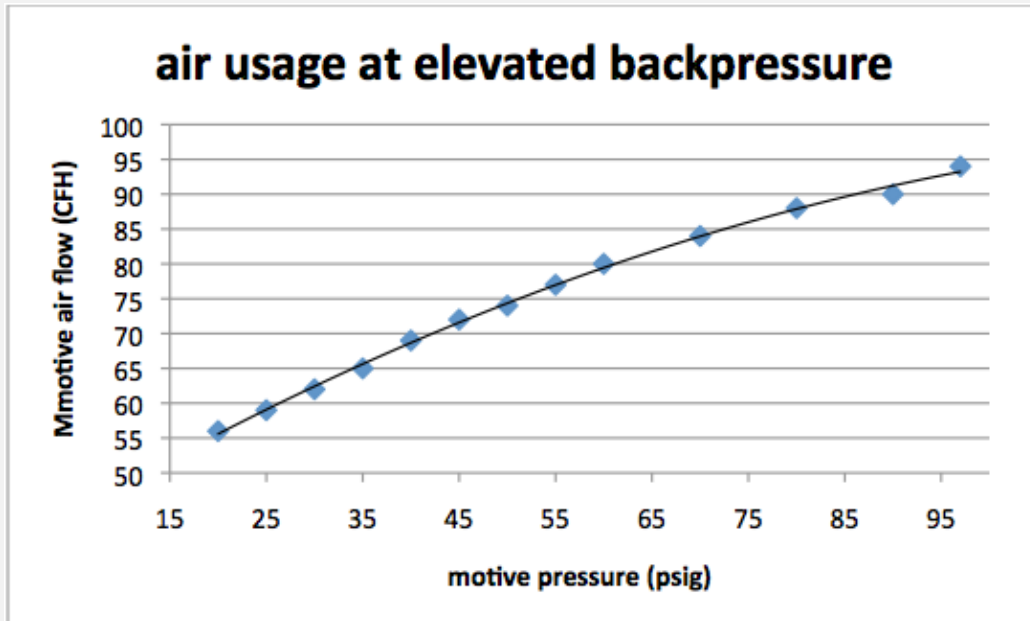
Returning the exhaust to a process line, flare, ...

There are a growing number of installations that require exhausting the mixed gas from the mini-educator to a flare or destructor or back to the process. The feed lines going to the flare may be above atmospheric pressure, so you have to take into account the pressure at the return point. To overcome the backpressure effect the motive air must be adjusted to a higher pressure. The curves below illustrate the performance of the Motiv-Air-Torr at three different backpressures (5 psig, 10 psig and 15 psig). You will note that as the backpressure increases the motive air pressure must be increased.



Air Usage at Elevated Backpressure

The air usage for these curves is illustrated in the following chart. Since the flow is at sonic velocity for most of range, the flow remains the same as the backpressure changes over the range tested.



The sample pressure can also have an effect on the performance of an educator. The curve below illustrates the effect on the sample flow rate when the sample pressure is increased from atmospheric (0 psig) pressure to 5 psig. This is illustrated at a backpressure of 15 psig. As would be expected the sample flow increases significantly.

