



DISCHARGE NOZZLE – Exhaust velocity

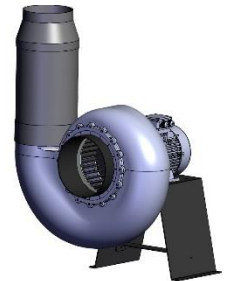
As per ANSI/AIHA Z9.5, local state codes and international regulations, when exhausting chemicals and fumes from facilities, it is required to have an exhaust velocity greater than 3000fpm (15.2m/s) to avoid re-try of corrosive and hazardous contaminated air back into buildings. The velocity discharge nozzles increase the exit speed to achieve that goal.



HOW TO USE THIS DOCUMENT?

When selecting a blower with a discharge nozzle, you need to know the exhausted flow rate (CFM) and read the corresponding values on the vertical axis. Each blower has a graph with three curves:

- The [blue dotted](#) line shows the discharge velocity without the nozzle.
- The [blue line](#) shows the discharge velocity with the nozzle.
- The [orange curve](#) shows the added static pressure caused by the nozzle (use the right axis)

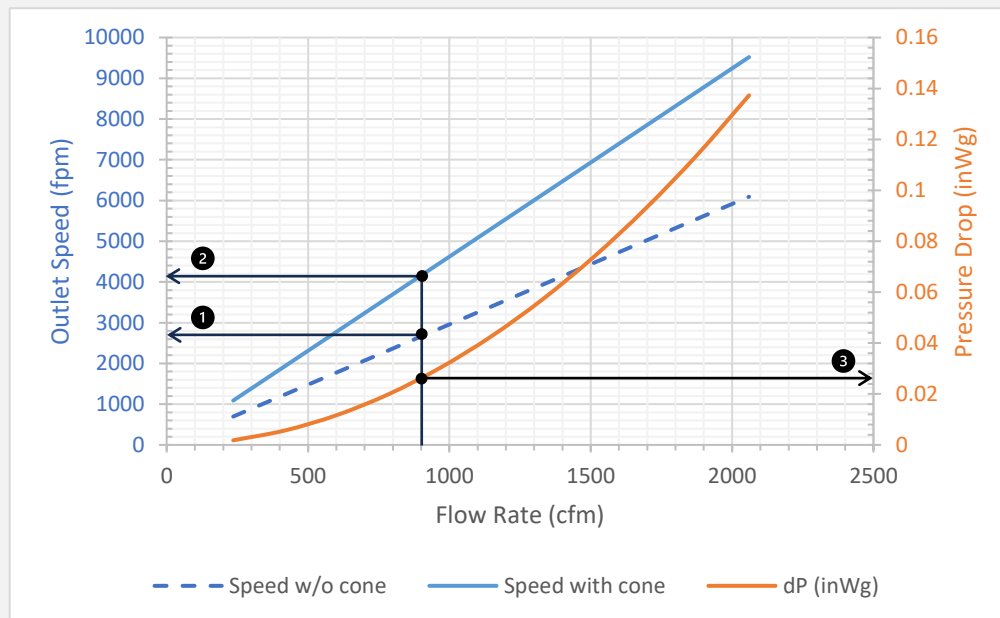


EXAMPLE:

Assuming a PLASTEC 25 is exhausting 900cfm. The reading N°1 shows that without discharge nozzle, the exit velocity is 2700fpm. The reading N°2 shows that with a speed nozzle, the exit velocity is 4200fpm. The reading N°3 shows that the added static pressure caused by the nozzle is 0.025inwg.

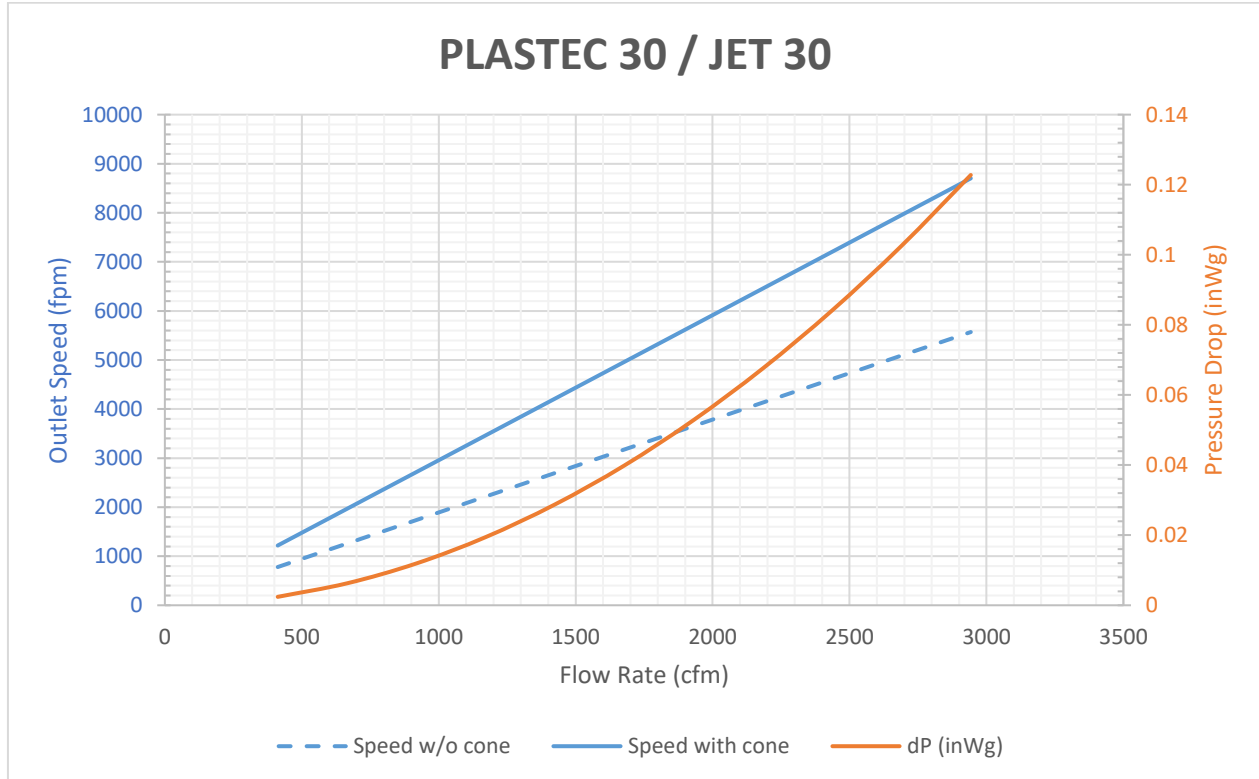
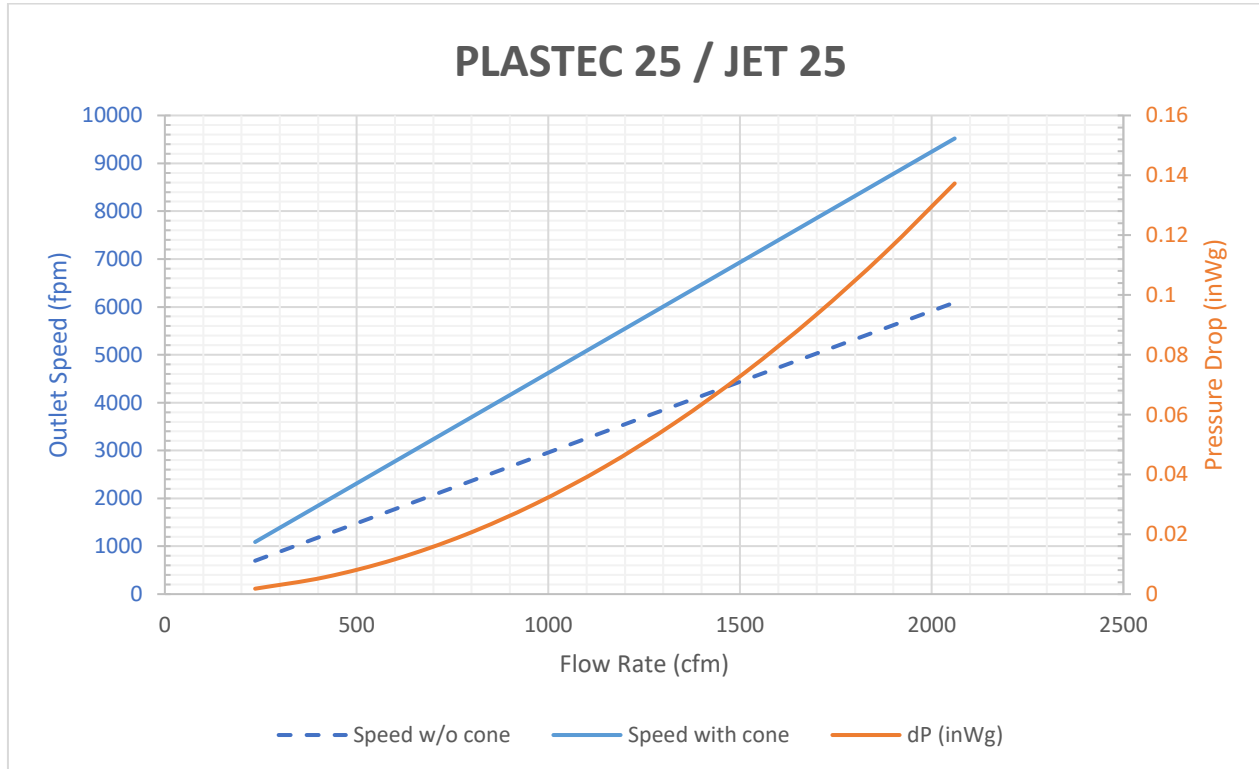
Comments:

The speed nozzle is useful in that case to go over the 3000fpm limit. Using the velocity discharge nozzle will cause an added static pressure of 0.025" that will need to be added to the total pressure drop in the system.





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