

Manufacturer of Automatic Sash Positioning System, Down Draft Tables, Custom Fume Hoods and Slot Exhausters.

Down Draft Tables

Used to <u>exhaust heavier than air gases:</u> The Down Draft Table takes advantage of the differences in air density to let the heavier than air gases fall into the trough, where it can be easily contained and exhausted. *This containment can be achieved*

with as low as 40 feet per minute downward velocity.





Used to <u>exhaust lighter than air gases</u>: The Down Draft Table also works very well with lighter than air gases such as Ether, as high as 20" above the perforated work surface. *This containment can be achieved with as low as 70 feet per minute downward velocity.*

Used to exhaust <u>particulate in the air stream</u>: The Down Draft Table also works exceptionally well to capture producing procedures where they can be contained and exhausted. *A three-sided wing wall can be added to help contain this particulate.*



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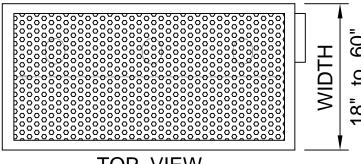
How the Down Draft Table works:

<u>GASSES:</u> The Down Draft Table takes advantage of the differences in air density to let the heavier than air gasses fall into the trough, where it can be easily contained and exhausted. This containment can be achieved with as low as 40 feet per minute downward velocity.

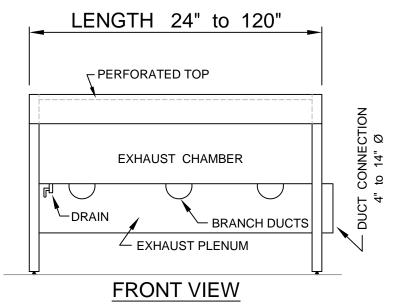
PARTICULATE: The Down Draft Table works exceptionally well to capture producing procedures where they can be contained and exhausted. A three-sided wing wall can be added to help contain this particulate.

<u>PERFORATED TOP:</u> 1/4" diameter holes 3/8" staggered centers. (*Standard 14 gauge SS 304*)

OPTIONAL MATERIALS: epoxy painted steel, SS 316, 1/8" PVC, CPVC or Polypropylene



TOP VIEW



How to determine if heavier than air:

The density of a gas is roughly proportional to its molecular weight. Air has an average molecular weight of about 29 gl/mol, so any gas with a molecular weight greater than 29 gl/mol will be denser than air.

The way to calculate the molecular weight of any formula is to add the atomic weight of all the atoms in the formula.

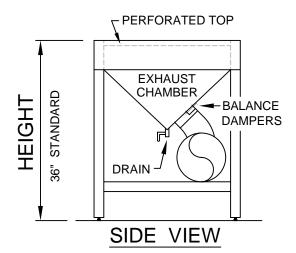
For example: Hydrogen Chloride, HCI. A hydrogen atom has a mass of 1.008 AMU and a chlorine atom has a mass of 35,453 AMU. The molecular weight of HCI is 36.461 gl/mol, the sum of the atomic weight of hydrogen and chlorine.

Standard Features:

- * Epoxy painted steel frame, legs and chamber. (Standard light gray, other colors available.)
- * Perforated top: 1/4" diameter holes 3/8" staggered centers. (Standard 14 gauge SS 304)
- * Sloped bottom to 1/2" drain valve
- * Balance dampers
- * Duct: painted 22 gauge galvanized steel.
- * Capture velocity: 40 to 150 fpm. (Typically 50 fpm for heavier than air gasses) (Typically 100 fpm for particulate)
- * Pressure drop: less than 0.5 in. w.g.
- * Legs have heavy duty leveling pads and vinyl boot.

Options:

- * Actuated exhaust damper or "on-off" switch.
- * Alternate working height
- * Frame, legs and/or chamber: SS 304 or SS 316
- * Perforated top: 14 gauge epoxy painted steel, SS 316 1/8" PVC, CPVC or Polypropylene
- * Combination of solid and perforated top
- * 6" wide rectangular duct for routing behind cabinets.
- * Three-sided containment barrier (Removable)
- * 40% high capacity pleat filters (below perforated top)



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