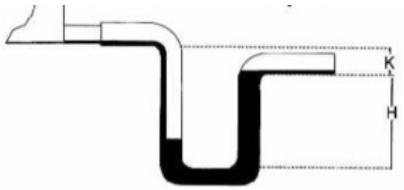
## Recommended Trapping Design

Visual estimates and arbitrary trap heights often result in trap failure. Depending on the dynamics of positive pressure or negative pressure, systems result in slightly different trapping solution.

### Positive Pressure

In a positive pressure situation, the fan is forcing the air through the cooling coil, with the condensate pan on the other side. The trap must be of sufficient height to account for the static pressure in the unit under normal operating conditions.

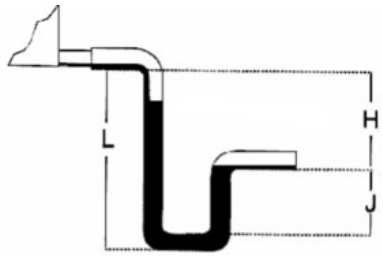



**K = min. 1/2"**
**H = 1/2" plus maximum total static pressure**

Figure above shows the relevant dimensions for a properly constructed positive pressure trap.

### Negative Pressure

In a negative pressure situation, the fan is pulling air through the cooling coil. Since the condensate drain pan is on the fan side, there is a negative pressure at the drain relative to outside the unit. The trap height must account for static pressure; but in the reverse direction. Worst case static pressure condition, like those caused by a dirty filter, must be used to calculate the correct trapping height. If the trap isn't tall enough, the water seal won't hold and air will be drawn through the drain pipe into the system. If too tall, water will back up into the system. Figure below illustrate the appropriate dimensions for trapping a negative pressure system.




H= (1" for each 1" of maximum negative static pressure) + 1"

J= half of H

L= H + J + Pipe Diameter + Insulation