

Contractor Service Tips

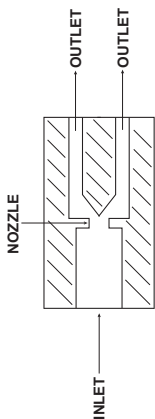
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Refrigerant Distributors

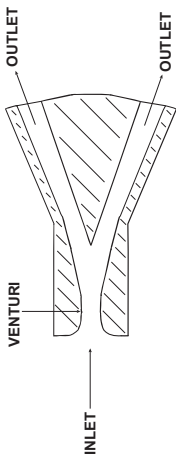
Q: What does a refrigerant distributor do?

Distributors are used on multi-circuited evaporator coils. By using multiple circuits in evaporators, the pressure drop through the evaporator is minimized. The purpose of the distributor is to provide equal feeding of the refrigerant to each individual circuit. Because of this, it is important for each connecting tube from the distributor to the evaporator to be of equal size and length. Also, it is recommended that distributors be installed in a vertical position to maintain equal flow under low load conditions.

There are two commonly used distributors – nozzle or venturi. The nozzle type uses an orifice plate to generate pressure drop which creates the turbulence to provide equal feeding of the circuits. As the name suggests, the venturi type uses an internal venturi design to provide equal flow to the circuits. Because the venturi does not rely upon turbulence to equalize the feed to the circuits, it has a much lower pressure drop through it. In either case, an externally equalized expansion valve should always be used with a distributor because of the pressure drop which the distributor generates.



**NOZZLE OR
ORIFICE TYPE**



VENTURI TYPE