

# Contractor Service Tips



## Suction Accumulators

**Q: What is the purpose of a suction accumulator?**

A suction accumulator is used to prevent liquid refrigerant flood-back to the compressor. Accumulators are commonly used on heat pumps, transport refrigeration, low-temp supermarket refrigeration systems and any place that liquid refrigerant is a concern.

The accumulator is installed in the suction line close to the compressor. It usually is a vertical container with top connections. An internal U-tube reaching down near the bottom is installed on the compressor outlet connection so that the inlet of the tube is near the top of the container. This allows the accumulator to be almost completely full before flood-back can occur.

A small diameter hole is drilled in the U-tube near its lowest point. This hole allows controlled metering of any liquid refrigerant or oil back to the compressor by a siphoning action.



To work best, it is sometimes advisable to have a source of heat on the vessel to assist in evaporating the liquid refrigerant. This may be either an electric heat tape or pad. Some accumulators have connections so that a liquid line loop can be piped into the bottom of the accumulator. This improves the performance of the system by subcooling the liquid refrigerant and protects the compressor against liquid slugging by providing additional superheat to the suction gas.

### Cutaway of Typical Accumulator

