Sizing and Selecting the Proper Solenoid Valve

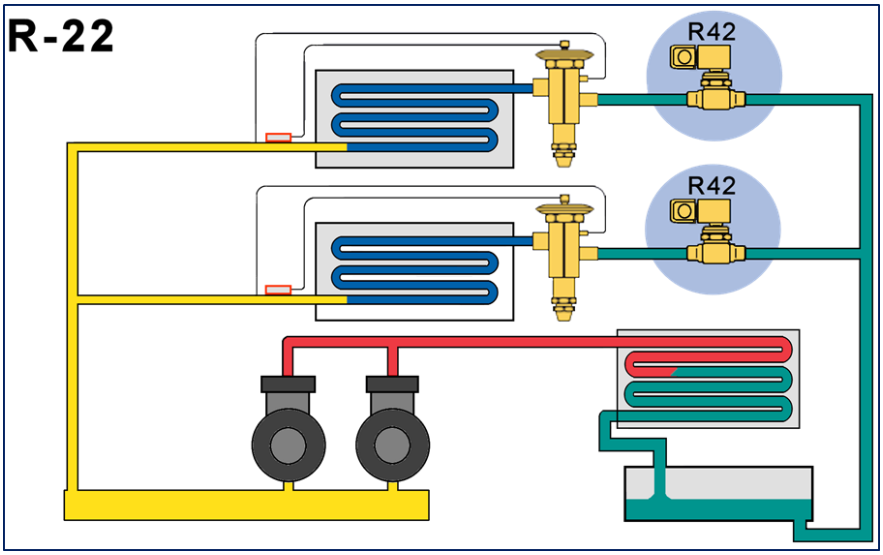
There has always been a tendency to select solenoid valves on the basis of line size. This is very risky. While a 5/8" line size and a 5/8" ODF sweat connection sound like a perfect match, other factors must be considered. The valve may be used in the liquid, discharge, or suction line. A valve applied in the suction line may have a capacity of 0.52 tons, while the same valve used in the liquid line would have a capacity of 8 tons. Using an oversized valve may mean the valve won't close properly, not to mention that you probably paid for more valve than you needed.

The valve capacity and application should always be the determining factors when selecting a solenoid valve. Use this five step process to help make the correct selection every time:

1. Type of refrigerant in the system
2. Application: discharge, liquid, or suction
3. Flow capacity required
4. Line size
5. Electrical specifications

For additional information see Parker Catalog D-1 and D-1a.

Liquid Line – R42 E19 capacity = 24 tons



Suction Line – R42 E19 capacity = 2 tons