TECH TIP

RESTRICTED DISCHARGE LINE

Excessive high side pressure can force a compressor to make noise, even when the gauge readings don't show a pressure problem. A common condition, often overlooked, is a restricted discharge line. The discharge line, which connects the compressor outlet to the condenser inlet, can easily become restricted. While simple designs have just two ends on a section of barrier hose, some lines may contain a muffler and/or filter.

The muffler, which smooths out compressor discharge pulses, may house baffles or filter screens or may be just an empty can. However, after a compressor failure, mufflers can trap debris.

Also, a discharge line without a muffler can become restricted. The barrier hose may collapse internally, restricting flow.

As the refrigerant leaves the compressor, it is a high pressure, high temperature vapor. The discharge line should have no effect on the refrigerant; pressure and temperature should remain constant. Any loss of heat can indicate the discharge line is restricted.

To test for a restriction, use a digital pyrometer to check the temperature at both ends of the line. A temperature drop of 5 degrees Fahrenheit or more indicates the line is restricted and must be replaced.

