

NITROGEN TESTING OF ZR COMPRESSORS

If equipment containing ZR compressors is to be tested for functionality using nitrogen, the following points should be observed:

1. Dry nitrogen must be used.
2. Supply pressure must be between 3.5 and 5.5 bar gauge (50 and 80 psig).
3. Discharge pressure should be 17 bar gauge (250 psig) at 3.5 bar supply pressure.
4. Maximum allowable discharge pressure 20 bar gauge (300 psig), permissible only if the supply pressure is at least 5 bar gauge.
5. Run time must be no longer than 20 seconds at 20 bar gauge and 25 seconds at 17 bar gauge.
6. Should the test be repeated for any reason the compressor must be allowed to cool for one hour.
7. Supply pressure must be measured at the compressor inlet, and not upstream of any fitting which may cause a flow restriction.
8. Discharge pressure must be measured at the compressor outlet, and not downstream of any fitting which may cause a flow restriction.

Failure to observe these limits could cause premature failure of the compressor in the field.

The compressor should be protected by monitoring of the supply and discharge pressures, or by use of calibrated pressure cut-outs.