

Technical Bulletin



A Tyco International Company

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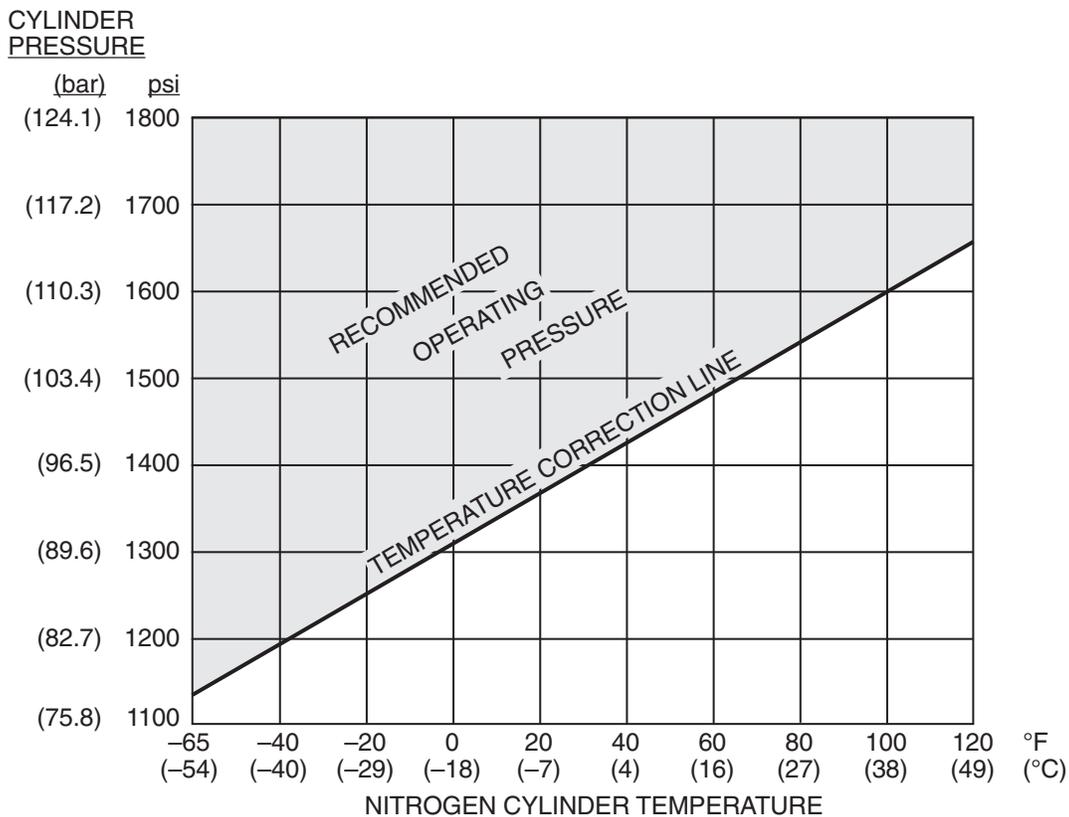
For Checking Pressures of 110 ft³ (3.11 m³) and 220 ft³ (6.23 m³) Nitrogen Cylinders

TYCO FIRE PROTECTION PRODUCTS
MARINETTE, WI 54143-2542

TEMPERATURE CORRECTION CHART

ANSUL fire suppression systems use compressed nitrogen as the expellant for the extinguishing agents. The instructions covering proper inspection and maintenance of this equipment state that the 110 ft³ (3.11 m³) and 220 ft³ (6.23 m³) nitrogen cylinders should be replaced with fully charged cylinders if the pressure is less than 1500 psi (103.4 bar) at 70 °F (21 °C). However, the pressure in the nitrogen cylinder varies with changes in temperature.

Accordingly, the chart below has been prepared to assist users of ANSUL equipment in determining that the cylinder being checked contains enough nitrogen to furnish a recommended operating pressure.



Examples:

1. The nitrogen cylinder on an ANSUL fire suppression system indicates a pressure of 1450 psi (100 bar) on the pressure gauge. The temperature of the cylinder is 40 °F (4 °C). Reference to the chart shows that this is above the "temperature correction line" and the cylinder does not need to be replaced.
2. One of the nitrogen cylinders of an ANSUL fire suppression system indicates a pressure of 1350 psi (93 bar) on the pressure gauge. The temperature of the cylinder is 80 °F (27 °C). Reference to the chart shows that this is below the minimum recommended pressure for this temperature. The cylinder should be replaced by a fully charged nitrogen cylinder.