SECTION 15135D - METERS AND GAGES

A. SECTION INCLUDES

1. Thermometers
2. Pressure Gages
3. Test Plugs
4. Flow Measuring Systems
5. Flow Meters
6. Flow Indicators
7. BTU Meters

B. SECTION DOES NOT INCLUDE

1. Fire Pump Flow Measuring Station
2. Balancing Valves for Hydronic Systems
3. Totalization Meters; such as for: water, gas, or condensate

C. DESIGN CRITERIA

1. Adequate instrumentation is necessary to properly test, adjust, balance, troubleshoot and maintain the mechanical systems. Therefore, selection and location of meters and gages is extremely important.

2. Design Factors:
   a. Coordinate carefully with the “Test, Adjust and Balance” Section and the “Controls” Section, to be sure that all required meters and gages are covered (and not duplicated); and are adequately specified to meet performance requirements.
   b. Specify meters and gages at all requisite points; however, in the interest of conserving initial cost, consider thermometer wells or test plugs, so meters and gages may be installed on a temporary basis, when needed.
   c. Specify instrument accuracy that is appropriate for the application, and require calibration.
D. PRODUCTS

1. Specify industrial grade instruments, and validate selections and acceptable manufacturers list, with the University.

2. Select pressure gage range approximately twice the normal operating pressure, and such that maximum operating pressure does not exceed 75% of full scale range.

E. EXECUTION

1. Consider instrument location and design where they can be properly read.

END