

Integrated Automation - Piping & Instrumentation Diagram (P&ID) Guidelines

Division 250000-5

The Facilities Services Subgroup designer shall clearly communicate the piping and instrumentation concepts and requirements for applicable systems. The P&ID is the preferred method for conveying this information. The following guidelines reflect the Owner's P&ID content preferences for this particular CSI division of the Facility Services Subgroup.

Division 25 Integrated Automation P&ID Guidelines:

1. The P&ID should utilize industry recognized symbols and abbreviations.
2. A schedule should be presented on the P&ID or other referenced drawing, identifying all symbols, abbreviations and instrumentation function identifiers.
3. System directional flow arrows should be utilized on the P&ID.
4. Design flow quantities and temperature and pressure setpoints are to be presented on the P&ID or corresponding schedule.
5. P&ID components are to be labeled with unique tags or identifiers.
6. Piping system lines are to be labeled at regular intervals to better facilitate the following of the lines on the drawing. Where P&ID lines extend to subsequent drawings, those drawings are to be incorporated into an off-sheet identifier, referencing the system line type and the location of the continuation of the piping system line.
7. The HVAC P&ID is intended to depict the Facilities Services systems including the distribution and generation of all HVAC water and steam systems.
8. All heat addition and rejection components are to be incorporated into the P&ID as well as heat exchanger components.
9. Terminal devices or multiple air handling equipment heat exchangers are appropriately presented in typical form to communicate expectations for repetitive component types.
10. Instrument identifiers are intended to be cross referenced to the Sequence of Operation descriptions presented on the drawings or the specifications.