

## DeltaPValve<sup>®</sup> System Integration and Delta T Validation

DeltaPValve<sup>®</sup> System Integration is intended to ensure correct physical installation and proper operation of every DeltaPValve<sup>®</sup>, delivering the required performance at each associated cooling or heating coil. Coil water-side differential temperature ( $\Delta T$ ) targets will be identified prior to integration for each installation, based on coil design and conditional operating parameters. As coil performance is expected to exceed design performance at part load conditions, if the expected coil  $\Delta T$  target cannot be achieved, recommendations will be provided to improve coil performance and increase overall system efficiency.

Prior to DeltaPValve<sup>®</sup> integration and  $\Delta T$  validation, each DeltaPValve<sup>®</sup> must be physically installed in an enabled and operating system. The valve must be connected to the control system and operating under automatic control, with a heating or cooling load available at the time of integration.

Initial verification covers the physical installation of each DeltaPValve<sup>®</sup> and actuator setup parameters, including: location; direction, orientation and accessibility; point mapping via building management system (BMS); maximum valve stroke and full shutoff confirmation. The system integration process also includes observation of the DeltaPValve<sup>®</sup> controlling during normal operation, to include: differential pressure range verification; air and water temperature sensor calibration; part load coil  $\Delta T$  performance validation; and a review of loop tuning and valve response.

All data is recorded for each DeltaPValve<sup>®</sup> installation and provided for project documentation. A final report will be prepared presenting the results and identifying any operational deficiencies at each AHU, along with any noted system parameters that may degrade system efficiency.