PROCESS INDUSTRY PRACTICES

TECHNICAL REVISION
August 2021

Process Control

PIP PCSCV001
Purchasing Requirements for Control Valves

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

In an effort to minimize the cost of process industry facilities, this Practice has been prepared from the technical requirements in the existing standards of major industrial users, contractors, or standards organizations. By harmonizing these technical requirements into a single set of Practices, administrative, application, and engineering costs to both the purchaser and the manufacturer should be reduced. While this Practice is expected to incorporate the majority of requirements of most users, individual applications may involve requirements that will be appended to and take precedence over this Practice. Determinations concerning fitness for purpose and particular matters or application of the Practice to particular project or engineering situations should not be made solely on information contained in these materials. The use of trade names from time to time should not be viewed as an expression of preference but rather recognized as normal usage in the trade. Other brands having the same specifications are equally correct and may be substituted for those named. All Practices or guidelines are intended to be consistent with applicable laws and regulations including OSHA requirements. To the extent these Practices or guidelines should conflict with OSHA or other applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by the Practice.

This Practice is subject to revision at any time.

PUBLISHING HISTORY

June 2002	*Issued*	*March 2016*	*Complete Revision*
March 2010	*Complete Revision*	*August 2021*	*Technical Revision*

Not printed with State funds

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Data Forms

PIP PCSCV001-D – Control Valve Specification Data Sheet

PIP PCSCV001-T – Control Valve Inspection and Testing Requirements Sheet

1. Scope

This Practice describes the minimum general requirements for the control valve body construction, actuator, auxiliaries (e.g., positioner, limit switches, etc.), testing, inspection, and documentation. This Practice provides requirements for the format for providing data for each individual control valve, the method to be used for valve sizing, and other design considerations. For Control Valves sizing and selection see *PIP PCCCV001* and *PIP PCECV001*.

This Practice does not include requirements for motor-operated valves, on-off valves intended for emergency isolation, and valves with hydraulic actuators. For On-Off Valves, see *PIP PCCCV003,* Remotely Actuated On-Off Valves Selection Criteria and *PIP PCECV003,* Guidelines for Application of Remotely Actuated On-Off Valves.

2. References

Applicable parts of the following Practices and industry codes and standards shall be considered an integral part of this Practice. The edition in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP PCCCV001 - *Control Valves Selection Criteria*
- PIP PCECV001 - *Guidelines for Application of Control Valves*

2.2 Industry Codes and Standards

- American Petroleum Institute (API)
  - API 598 - *Valve Inspection and Testing*
- The International Society of Automation (ISA)
  - ANSI/ISA 75.02.01 - *Control Valve Capacity Test Procedures*
  - ANSI/ISA 75.19.01 - *Hydrostatic Testing of Control Valves*

3. Requirements

3.1 Control Valve General Requirements

Control valves and associated documentation shall be provided in accordance with the purchaser's *PIP PCSCV001-D* Data Sheet and *PIP PCCCV001,* Control Valves Selection Criteria.

3.2 Individual Control Valve Data Sheets

3.2.1 A data set shall be provided for each control valve in accordance with the control valve data sheet format specified on the purchaser's *PIP PCSCV001-D* Data Sheet.

3.2.2 The individual control valve data sheets shall include data for normal, minimum, and maximum conditions and for off-normal conditions (e.g., start-up, end of run, upset, and shutdown). This data is defined as the minimum data set.