PROCESS INDUSTRY PRACTICES

TECHNICAL REVISION
April 2019

Pipeline Systems

PIP PLSMV003
Carbon Steel Gate Valve Descriptions

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

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1. Scope

This Practice provides requirements for suppliers providing carbon steel gate valves included in PIP Pipeline Systems Line Class Material Specifications.

2. References

Applicable parts of the following Practices 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 will be used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP PLCM0004 - *Pipeline Systems Valve Commodity Codes Designator System*

3. Valve Designation System

3.1 For a full explanation of the format used to structure the valve numbers listed within this Practice, refer to *PIP PLCM0004.*

3.2 This Practice provides descriptions for wedge gate and through conduit gate valves. Therefore, the two characters following the Pipeline Systems identifier, L, in the valve numbers are GA (wedge) and GT (through-conduit).

3.3 The valves listed in Section 5 and Section 6 of this Practice are sorted by the unique valve number designation in ascending alphanumeric sequence (e.g., LGA01CA500, LGA01CA501, LGA01CB500, LGA01CB501, LGA03CB500, LGT01CB500).

4. Notes

4.1 Occasionally, valve size ranges listed in this Practice are broader than the size ranges shown for the same valves on a piping line class material specification. While the "most common practice" has been used to specify valve size ranges on line class specifications, a purchaser may need to utilize a valve in a size outside this "common practice" choice. Thus, for reference purposes, the full size range for which a given valve is typically manufactured is shown in this Practice.

4.2 Gear operation may be specified in two ways: (a) Select the description in which the gear operator is already called out, or (b) Select the description in which a handwheel has been called out, and use Field 5 of the Valve Commodity Codes Designator System as described in *PIP PLCM0004*.

4.3 If fluids can be trapped (e.g., in double-seated valves) and subjected to heating and subsequent expansion, means of pressure relief shall be considered to avoid excessive pressure build-up.

4.4 Because of current practice at many pipeline facilities, only NACE-compliant valves are specified. These valves are technically acceptable for both sweet and sour services. For use of non-NACE-compliant valves or for applications involving severe sour and corrosive services, an engineering review is required.

4.5 Pressure and temperature rating can be limited by certain components (e.g. soft seats and seals) permitted by this Practice. Manufacturers' recommended pressure-temperature restrictions shall be consulted.