PROCESS INDUSTRY PRACTICES

**TECHNICAL CORRECTION**
*May 2024*

***Pipeline Systems***

# PIP PLSMV005
# Carbon Steel Check Valve Descriptions

PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

This Practice has been prepared by harmonizing technical requirements from existing standards of major industrial operators, contractors, and standards development organizations. While this Practice is intended to incorporate the majority of requirements, individual applications may have requirements which take precedence over this Practice. Determinations concerning fitness for purpose or application of this Practice to specific project or engineering situations should not be made solely on information contained in this Practice. All Practices are intended to be consistent with applicable laws and regulations. Should this Practice conflict with 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 this Practice.

Use of trade names should not be viewed as an expression of preference. Other brands having the same specifications are equally correct and may be substituted for those named.

This Practice is subject to revision at any time. For more information refer to PIP ADG001, *Specification for Developing Practices*.



Process Industry Practices
3925 West Braker Lane (R4500)
Austin, Texas 78759

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## Table of Contents

## 1. Scope

This Practice provides requirements for suppliers providing carbon steel check valves included in PIP Pipeline Systems Material Specifications (PMSs).

## 2. References

Applicable parts of the following Practice 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 Tag Number Designation 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 three types of check valves: dual plate, lift and swing. Therefore, the two characters following the Pipeline Systems identifier, L, in the valve numbers are CD (dual plate), CL (lift), and CS (swing).

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., LCL03CB500, LCS03CA500).

## 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 PMS. 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 Requirements for accessories (e.g., dampeners, dash pots, slam retarders, power assists) for swing check valves are not specified in PMSs or valve descriptions. Purchaser shall define the requirements for such accessories in their specifications.

4.3 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, engineering review is required.

4.4 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.

4.5 It is common pipeline practice to inject inhibitors and other chemicals for corrosion control. The manufacturer shall be consulted on the suitability of service under these conditions for all components (including soft seats and seals) permitted by this Practice.