PROCESS INDUSTRY PRACTICES

October 2017

Pipeline Systems

PIP PLSMV006
Carbon Steel Ball 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

October 2017 Issued

Not printed with State funds

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Table of Contents

1. Scope

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

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 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 ball valves. Therefore, the two characters following the Pipeline Systems identifier, L, in the valve numbers are BA.

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., LBA01CA500, LBA01CA501, LBA01CB500, LBA01CB501, LBA03CA500).

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 given piping line class 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 operators are specified in some, but not all, ball valve descriptions. If not specified in the valve description, the purchaser shall specify that gear operators are needed. One method of specifying this need is by using Field 5 of the valve designation system as described in *PIP PLCM0004.*

4.3 Many ball valve manufacturers offer numerous operator options (e.g., locking/nonlocking, latching/nonlatching, oval, tee). As a default, valve descriptions within this Practice only specify the manufacturer's standard lever. The purchaser shall specify a different operator if required.

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

4.5 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.

4.6 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.

4.7 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.

5. Cross Reference

Valve Number	Applicable Line Classes (PLX-)
LBA01CB500	1CS5S01
LBA01CB501	1CS5S01
LBA01CB502	1CS5S01
LBA01CB503	1CS5S01
LBA03CB300	3CS5S01
LBA03CB500	3CS5S01
LBA03CB501	3CS5S01
LBA03CB502	3CS5S01
LBA03CB503	3CS5S01
LBA06CB500	3CS5S01
LBA06CB501	6CS5S01
LBA06CB502	6CS5S01
LBA09CB500	6CS5S01
LBA09CB501	9CS5SO1
LBA15CB500	9CS5S01
LBA15CB501	15CS5S01