



PROCESS
INDUSTRY
PRACTICES

COMPLETE REVISION
April 2023

Piping

**PIP PNSMV058
Nickel and Nickel Alloy
Plug Valve Descriptions**

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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 standard 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*.

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1. Scope

This Practice provides detailed descriptions for the purchase of nickel and nickel alloy plug valves included in PIP Piping 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 PNCM0004 - *Valve Tag Number 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 PNCM0004*.
- 3.2 This Practice provides descriptions for plug valves. Therefore, the first two characters in the valve numbers are PL.
- 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., PL01NC500, PL01NC501).

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 PMSs, 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 NPS 4 and larger plug valve descriptions. If gear operators are required outside of the size range specified, 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 PNCM0004*.
- 4.3 Many plug valve manufacturers offer numerous handle options (e.g., locking/nonlocking, latching/nonlatching, lever, wrench, tee). As a default, NPS 0.5 – NPS 1.5 valve descriptions within this Practice specify an oval or round handwheel; NPS 2 - NPS 3 descriptions specify a lever with lockout. The purchaser shall specify a different handle option if one is 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 build-up.