



PROCESS  
INDUSTRY  
PRACTICES

TECHNICAL CORRECTION  
*December 2016*

***Piping***

**PIP PNSM0115  
Purchasing Requirements for Pipe**

---

## 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.

© Process Industry Practices (PIP), Construction Industry Institute, The University of Texas at Austin, 3925 West Braker Lane (R4500), Austin, Texas 78759. PIP member companies and subscribers may copy this Practice for their internal use. Changes or modifications of any kind are not permitted within any PIP Practice without the express written authorization of PIP. Authorized Users may attach addenda or overlays to clearly indicate modifications or exceptions to specific sections of PIP Practices. Authorized Users may provide their clients, suppliers and contractors with copies of the Practice solely for Authorized Users' purposes. These purposes include but are not limited to the procurement process (e.g., as attachments to requests for quotation/ purchase orders or requests for proposals/contracts) and preparation and issue of design engineering deliverables for use on a specific project by Authorized User's client. PIP's copyright notices must be clearly indicated and unequivocally incorporated in documents where an Authorized User desires to provide any third party with copies of the Practice.

### **PRINTING HISTORY**

*October 2000    Issued                      September 2013    Complete Revision*  
*February 2008    Complete Revision    December 2016    Technical Correction*

Not printed with State funds



## PIP PNSM0115 Purchasing Requirements for Pipe

---

### Table of Contents

<b>1. Introduction .....</b>	<b>2</b>	4.1 General .....	3
1.1 Purpose .....	2	4.2 Materials of Construction .....	4
1.2 Scope .....	2	4.3 Inspection and Testing .....	4
<b>2. References .....</b>	<b>2</b>	4.4 Shipping and Handling .....	4
Industry Codes and Standards .....	2	4.5 Low Temperature or Cryogenic Service .....	5
<b>3. Definitions .....</b>	<b>3</b>	4.6 Oxygen Service .....	5
<b>4. Requirements .....</b>	<b>3</b>	4.7 Engineering Data Requirements .....	5
		4.8 Identification .....	6

## 1. Introduction

---

### 1.1 Purpose

This Practice provides purchasing requirements for pipe.

### 1.2 Scope

This Practice describes the minimum requirements for the procurement of metallic pipe.

## 2. References

---

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

### Industry Codes and Standards

- American Petroleum Institute (API)
  - API RP 578 - *Material Verification Program for New and Existing Alloy Piping Systems*
- American Society of Mechanical Engineers (ASME)
  - ASME Boiler and Pressure Vessel Code, Section IX - *Welding and Brazing Qualifications*
  - ASME B1.20.1 - *Pipe Threads, General Purpose (Inch)*
  - ASME B16.11 - *Forged Fittings, Socket Welding and Threaded*
  - ASME B16.25 - *Buttwelding Ends*
  - ASME B31.3 - *Process Piping*
  - ASME B36.10M - *Welded and Seamless Wrought Steel Pipe*
  - ASME B36.19M - *Stainless Steel Pipe*
- American Society for Testing and Materials (ASTM)
  - ASTM A153 - *Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware*
- Compressed Gas Association (CGA)
  - CGA G-4.1 - *Cleaning Equipment for Oxygen Service*
  - CGA G-4.4 - *Industrial Practices for Gaseous Oxygen Transition and Distribution Piping Systems*
- Manufacturers Standardization Society (MSS)
  - MSS SP-25 - *Standard Marking System for Valves, Fittings, Flanges and Unions*
  - MSS SP-138 - *Quality Standard Practice for Oxygen Cleaning of Valves & Fittings*
- Pipe Fabrication Institute (PFI)
  - Standard ES-22 - *Recommended Practice for Color Coding of Piping Materials*