



PROCESS
INDUSTRY
PRACTICES

REAFFIRMATION WITH EDITORIAL REVISION
January 2017

Refractory

PIP RFTA1000
Refractory Anchor and Accessory Installation
Qualification, Inspection, and Testing

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.

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Data Form

RFTA 1000-F - Inspection Hold Point and
Sign-Off Schedule

1. Scope

This Practice provides requirements for quality control and quality assurance for the installation of refractory anchors and accessories including the requirements for inspection and testing of anchors and accessory materials, in-progress installation inspection, surface preparation, welding qualification, weld repair, and final inspection.

2. References

Applicable parts of the following Practices and 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 when appropriate.

2.1 Process Industry Practices (PIP)

- PIP CTSL1000 - *Application of Internal Linings*
- PIP RFIA1000 - *Refractory Anchor and Accessory Installation Details*
- PIP RFSA1000 - *Refractory Anchor and Accessory Specification*

2.2 Industry Codes and Standards

- American Petroleum Institute (API)
 - API Standard 936 - *Refractory Installation Quality Control - Inspection and Testing Monolithic Refractory Linings and Materials*
- American Society of Mechanical Engineers (ASME)
 - ASME Boiler and Pressure Vessel Code, Section IX - *Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Brazing Operators*
- ASTM International (ASTM)
 - ASTM C 71 - *Standard Terminology Relating to Refractories*
- American Welding Society (AWS)
 - AWS D1.1 - *Structural Welding Code – Steel*
 - AWS D1.6 - *Structural Welding Code – Stainless Steel*

3. Definitions

With the exception of the terms listed in this section, terms used in this Practice are defined in accordance with *API Standard 936* and *ASTM C 71*. If a definition as used in this Practice differs from the one listed in the referenced documents, the modified definition is included in the following listing:

installer: Party responsible for installing the refractory anchors and accessories

installer's inspector: Installer's authorized representative, responsible for the quality control of all materials, installations, and workmanship furnished by the installers, and any of the installer's subcontractors or vendors

owner: Party who owns the facility wherein the refractory lined equipment will be used