



PROCESS
INDUSTRY
PRACTICES

COMPLETE REVISION
May 2024

Vessel

**PIP VEFV1100
Vessel/Shell & Tube Heat Exchanger
Standard Details
(U.S. Customary Units)**

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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 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*.

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PIP VEFV1100 Vessel/Shell & Tube Heat Exchanger Standard Details (U.S. Customary Units)

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1. Scope

This Practice provides fabrication and installation details and dimensional tolerances for the design of supports and other attachments for vessels, heat exchangers and solids products containers.

2. References

Applicable parts of the following industry codes and standards shall be considered an integral part of this Practice. The edition in effect at the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

Industry Codes and Standards

- American Institute of Steel Construction (AISC)
 - *AISC Manual of Steel Construction*
- American Society of Mechanical Engineers (ASME)
 - *ASME Boiler and Pressure Vessel Code, Section VIII, Division 1 - Rules for Construction of Pressure Vessels*
 - *ASME B16.5 - Pipe Flanges and Flanged Endings: NPS 1/2 through NPS 24 Metric/Inch Standard*
- ASTM International (ASTM)
 - *ASTM A36/A36M – Standard Specification for Carbon Structural Steel*
 - *ASTM A992/A992M - Standard Specification for Structural Steel Shapes*