



PROCESS  
INDUSTRY  
PRACTICES

TECHNICAL REVISION  
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**Machinery**

**PIP RESP73V**  
**Application of ASME B73.2-2016**  
***Specification for Vertical In-Line Centrifugal Pumps***  
***for Chemical Process***

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## 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. Determination concerning fitness for purpose and particular matters or application of the Practice to a 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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## Scope

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This Practice supplements *ASME B73.2-2016, Specification for Vertical In-Line Centrifugal Pumps for Chemical Process*. Together, this Practice and *ASME B73.2-2016* provide requirements to the manufacturer for design and manufacture of vertical in-line centrifugal pumps.

This Practice describes additions, changes, and/or deletions to the requirements in *ASME B73.2-2016*. The section/paragraph numbers and the associated headings used in this Practice correspond to those used in *ASME B73.2-2016*. Because this Practice does not take exception to all the requirements in *ASME B73.2-2016*, the section/paragraph numbers in this Practice may not be sequential.

## References

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Applicable parts of the following Practices, industry codes and standards, and references 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 are used herein where appropriate.

### Process Industry Practices (PIP)

- PIP CTCE1000 - *External Coating System Selection Criteria*
- PIP RECE003 - *Non-Lubricated Flexible Couplings*
- PIP REIE686/API RP686 - *Recommended Practice for Machinery Installation and Installation Design, Second Edition*
- PIP REIE686A - *Recommended Practice for Machinery Installation and Installation Design, (Supplement to PIP REIE686/API RP686)*

### Industry Codes and Standards

- American Gear Manufacturers Association (AGMA)
  - AGMA 9000-C90 *Flexible Couplings - Potential Unbalance Classification*
  - AGMA 9002-A86 - *Bore and Keyways for Flexible Couplings*
- American Petroleum Institute
  - API 682 - *Pumps Shaft Sealing Systems for Centrifugal and Rotary Pumps*
- American Society of Mechanical Engineers (ASME)
  - ASME B16.1 - *Cast Iron Pipe Flanges and Flanged Fittings*
  - ASME B16.5 - *Pipe Flanges and Flanged Fittings*
  - ASME B73.2-2016 - *Specification for Vertical In-Line Centrifugal Pumps for Chemical Process*
- American Society for Testing and Materials (ASTM)
  - ASTM A53 - *Specification for Pipe, Steel, Black, and Hot-Dipped, Zinc-Coated Welded and Seamless*
  - ASTM A193 - *Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service*
  - ASTM A269 - *Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service*
  - ASTM A276 - *Specification for Stainless and Heat-Resisting Steel Bars and Shapes*