



PROCESS
INDUSTRY
PRACTICES

TECHNICAL REVISION
November 2021

Machinery

PIP RESP73H
Application of *ASME B73.1 – 2020*
Specification for Horizontal End Suction
Centrifugal Pumps for Chemical Process

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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PUBLISHING HISTORY

<i>October 1997</i>	<i>Issued as RESP73H-97</i>	<i>May 2018</i>	<i>Technical Revision</i>
<i>February 2007</i>	<i>Complete Revision</i>	<i>November 2021</i>	<i>Technical Revision</i>
<i>May 2013</i>	<i>Technical Correction</i>		

Not printed with State funds



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Scope

The purpose of this Practice is to specify the requirements for design and manufacture of horizontal end suction centrifugal pumps.

The requirements in this Practice are modifications, additions, and/or deletions (exceptions) to the requirements in *ASME B73.1 - 2020*. The section/paragraph numbers and the associated headings used in this Practice correspond to the ones used in *ASME B73.1*. Since this Practice does not take exception to all the requirements in *ASME B73.1*, the section/paragraph numbers in this Practice may not be sequential. Data sheets *PIP RESP73-D* and *PIP RESP73-DM*, appended, may be used to select options for ordering the pumps specified in this Practice.

This practice is intended for chemical and hydrocarbon services and does not cover pumps sealed with packing.

For general water services that fall out of the limitations of this practice use *PIP RESP003H*.

References

Applicable parts of the following Practices, industry codes and standards, and government regulations shall be considered an integral part of this Practice. The edition in effect on the date of contract or purchase order 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 STD 610 - *Centrifugal Pumps for Petroleum, Petrochemical, and Natural Gas Industries*
- American Society for Mechanical Engineers (ASME)
 - ASME B73.1 - 2020 - *Specification for Horizontal End Suction Centrifugal Pumps for Chemical Process*
 - ASME Code - *Boiler and Pressure Vessel Code*
- American Society for Testing and Materials (ASTM)
 - ASTM A193 - *Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service*
- Process Industry Practices (PIP)
 - RESP002 - *Design of ASME B73.1 and General Purpose Pump Baseplates*
 - REEE003 - *Guidelines for General Purpose Non-lubricated Flexible Couplings*
 - REEP005 - *Guideline for Selection of Rotating Equipment Bearing Lubrication Methods*
 - REEP007 - *Guidelines for Minimum and Maximum Flow Rates for Centrifugal Pumps*