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Guidance on Industry Standard for ASME B73.2M Vertical In-Line Centrifugal Pumps

GIS 34-203

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This is the first issue of Engineering Technical Practice (ETP) BP GIS 34-203. This ETP is based on parts of heritage documents from the merged BP companies as follows:

Amoco (ACES)

A RE-PUMP-73V-P Rotating Equipment—Pumps—ASME B73.2 Vertical Centrifugal—
Procurement Specification.

PTA

PTA RE-PUMP-73V-P Rotating Equipment—Pumps—ASME B73.2 Vertical Centrifugal—
Procurement Specification.

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Introduction

- a. Guidance for vertical in-line centrifugal pumps is based on American Society of Mechanical Engineers (ASME) B73.2M-1991, Specification for Vertical In-Line Centrifugal Pumps for Chemical Process.
- b. Guidance statements of this GIS are modifications to ASME B73.2M.
- c. Modifications to ASME B73.2M are identified as Add, Modify to Read, or Delete.
- d. Paragraph numbers in this GIS correspond to ASME B73.2M.
- e. Paragraphs of ASME B73.2M that are not revised remain applicable.

4. Design and construction features

4.1 Pressure and temperature limits

4.1.2 Temperature limits

Modify First Sentence to Read

Pumps should be available for operating temperatures up to 177°C (350°F).

4.1.3 Statement

Add

Stated pressure-temperature limitations of casing shall not be exceeded by maximum discharge pressure using maximum impeller, maximum suction pressure, and maximum pumped fluid density.

4.2 Flanges

Modify Second Sentence to Read

Flanges, except cast iron flanges, shall be raised face.

4.3 Casing

4.3.1 Drain connection boss(es)

Add

Drain connections shall comply with the following:

- a. Casing drain shall be routed to edge of baseplate (or casing perimeter if no baseplate) with DN 15 (NPS 1/2) or larger Schedule 80 pipe that terminates in gate valve.
- b. Casing drain and valve shall be supported and protected to prevent damage from vibration:
 - 1. During shipment.
 - 2. From operation and maintenance.
- c. Casing drains shall comply with the piping clauses of this GIS.

