ASME BPE-2016

(Revision of ASME BPE-2014)

Bioprocessing Equipment

AN INTERNATIONAL STANDARD



ASME BPE-2016

(Revision of ASME BPE-2014)

Bioprocessing Equipment

AN INTERNATIONAL STANDARD



Date of Issuance: October 14, 2016

The next edition of this Standard is scheduled for publication in 2018. This Standard will become effective 6 months after the Date of Issuance.

ASME issues written replies to inquiries concerning interpretations of technical aspects of this Standard. Periodically, certain actions of the ASME BPE Committee may be published as Cases. Cases and interpretations are published on the ASME Web site under the Committee Pages at http://cstools.asme.org/ as they are issued.

Errata to codes and standards may be posted on the ASME Web site under the Committee Pages to provide corrections to incorrectly published items, or to correct typographical or grammatical errors in codes and standards. Such errata shall be used on the date posted.

The Committee Pages can be found at http://cstools.asme.org/. There is an option available to automatically receive an e-mail notification when errata are posted to a particular code or standard. This option can be found on the appropriate Committee Page after selecting "Errata" in the "Publication Information" section.

ASME is the registered trademark of The American Society of Mechanical Engineers.

This international code or standard was developed under procedures accredited as meeting the criteria for American National Standards and it is an American National Standard. The Standards Committee that approved the code or standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not "approve," "rate," or "endorse" any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor assume any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

No part of this document may be reproduced in any form, in an electronic retrieval system or otherwise, without the prior written permission of the publisher.

The American Society of Mechanical Engineers Two Park Avenue, New York, NY 10016-5990

Copyright © 2016 by THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS All rights reserved Printed in U.S.A.

CONTENTS

Foreword		х
	Policy	xii
	oster	xiii
	Changes	xvii
•		
CHAPTER 1	INTRODUCTION, SCOPE, AND DEFINITIONS	1
Part GR	General Requirements	1
GR-1	Introduction	1
GR-2	Scope of the ASME BPE Standard	1
GR-3	Manufacturer's Quality Assurance Program	2
GR-4	Inspection	2
GR-5	Documentation	6
GR-6	U.S. Customary and SI Units	8
GR-7	References	8
GR-8	Terms and Definitions	9
CHAPTER 2	DESIGN	18
Part SD	Systems Design	18
SD-1	Purpose and Scope	18
SD-2	General Guidelines	18
SD-3	Process Components	21
SD-4	Process Utilities	59
SD-5	Process Systems	65
SD-6	Design Conformance Testing	100
CHAPTER 3	MATERIALS	101
Part MM	Metallic Materials	101
MM-1	Purpose and Scope	101
MM-2	Alloy Designations	101
MM-3	Uses of Specifications	101
MM-4	Referenced Specifications	104
MM-5	Base Metals and Filler Materials	106
MM-6	Mechanical Properties	108
MM-7	Corrosion-Resistance Requirements	113
MM-8	Addition of New Alloys to Part MM	113
Part PM		114
	Polymeric and Other Nonmetallic Materials	
PM-1	Purpose and Scope	114
PM-2	Materials	
PM-3	Properties and Performance	117
PM-4	Applications	119
CHAPTER 4	PROCESS COMPONENTS	128
Part DT	Dimensions and Tolerances for Process Components	128
DT-1	Purpose and Scope	128
DT-2	Pressure Rating	128
	ressure Rating	
DT-3	Wall Thickness	128
DT-3 DT-4	9	128 128
	Wall Thickness	

DT-7	Tolerances	129
DT-8	Weld Ends	129
DT-9	Hygienic Clamp Unions	129
DT-10	Minimum Examination Requirements	130
DT-11	Marking	130
DT-12	Packaging	131
Part PI	Process Instrumentation	157
PI-1	Purpose and Scope	157
PI-2	Process Instrumentation General Requirements	157
PI-3	Instrument Receiving, Handling, and Storage	158
PI-4	Flowmeters	158
PI-5	Level Instruments	163
PI-6	Pressure Instruments	165
PI-7	Temperature Sensors and Associated Components	165
PI-8	Analytical Instruments	170
PI-9	Optical	178
	-	
Part SG	Sealing Components	182
SG-1	Purpose and Scope	182
SG-2	Sealing Component Types	182
SG-3	Sealing Components General Design Requirements (General	
	Provisions)	198
SG-4	Seal Performance Requirements	204
SG-5	Seal Applications	206
CHAPTER 5	FABRICATION, ASSEMBLY, AND ERECTION	209
Part MJ	Materials Joining	209
MJ-1	Purpose and Scope	209
MJ-2	Materials	209
MJ-3	Joint Design and Preparation	210
MJ-4	Joining Processes and Procedures	210
MJ-5	Procedure Qualifications	211
MJ-6	Performance Qualifications	211
MJ-7	Examination, Inspection, and Testing	212
MJ-8	Acceptance Criteria	213
MJ-9	Joining of Polymeric Materials	214
MJ-10	Documentation Requirements	229
MJ-11	Passivation	229
•		
Part SF	Process Contact Surface Finishes	
SF-1	Purpose and Scope	230
SF-2	Metallic Applications	230
SF-3	Polymeric Applications	234
CHAPTER 6	CERTIFICATION	235
Part CR	Certification Requirements	235
CR-1	Purpose and Scope	235
CR-2	General	235
Figures		
SD-3.1.1-1	Flat Gasket Applications	22
SD-3.1.2.2-1	Accepted Point-of-Use Designs	26
SD-3.1.2.3-1	Double Block-and-Bleed Valve Assembly	27
SD-3.2.1-1	Flexible Hygienic Hose Design	29
SD-3.3.2.2-1	Pump Impeller Configurations	30
SD-3.3.2.2-2	Acceptable Impeller Attachments	31
SD-3.3.2.2-3	Casing Drain Configurations	31
SD-3.3.2.2-4	Casing Drain L/D Ratios	32



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation