ACCURIS TECH SPEC

American Society of Mechanical Engineers (ASME) Overview of Offerings: Boiler and Pressure Vessel Code (BPVC)

About ASME

The American Society of Mechanical Engineers (ASME) is a leading international developer of codes & standards associated with the art, science, & practice of mechanical engineering. ASME has approximately six hundred codes and standards covering many technical areas, such as fasteners, plumbing fixtures, elevators, pipelines, and power plant systems and components.

Types of Data

Boiler and Pressure Vessel Code (BPVC)

The ASME Boiler & Pressure Vessel Code (BPVC) establishes safety rules, quality standards and guidelines that apply to the design, fabrication and inspection of boilers, pressure vessels and nuclear power plant components during construction. The ASME BPVC consists of thirteen sections each covering a different topic relating to boilers and pressure vessels.

Originating in 1914, the ASME BPVC is now adopted in part or in its entirety by forty-nine states, many municipalities, and territories of the United States, all the provinces of Canada, and in select countries around the world.

The ASME BPVC covers a diverse range of topics including rules for the construction of both heating and power boilers, and the materials – both ferrous and nonferrous, that can be used for the same. It covers how to properly operate and care for both power and heating boilers and how to properly perform non-destructive examination (NDE). It covers the



construction of pressure vessels including high and fiber-reinforced plastic pressure vessels, and the rules surrounding those. It covers associated brazing and welding qualifications as well as the construction and service of transport tanks. Finally, it also covers in depth the construction and inspection of components at a nuclear facility.

Standards

ASME Standards & Codes provide a set of technical definitions, instructions, rules, guidelines, or characteristics set forth to provide consistent & comparable results, including:

- Items manufactured uniformly, providing for interchangeability
- Tests & analyses conducted reliably, minimizing the uncertainty of the results
- Facilities designed & constructed for safe operation

Performance Test Codes (PTCs)

ASME Performance Test Codes (PTCs) provide rules & procedures for planning, preparing, executing, & reporting performance tests. A performance test is an engineering evaluation; its results indicate how well the equipment performs its functions. PTCs are used by equipment owners, equipment suppliers, & test engineers.

ASME Reference Standards

ASME standards referenced in the most current edition of the ASME BPVC.

ASME BPVC Offerings Information

All ASME BPVC offerings are Active/Historical (A/H). The A/H ASME BPVC offerings include all available editions of the code dating back to 1983. All ASME Standards & PTC offerings provided in BPVC offerings by Accuris are Active/Historical (A/H) and include historical content going back to 1987. ASME BPVC offerings are not available in Custom Collections. Effective Dec 1, 2024, ASME BPVC subscription products will not have Digital Rights Management (DRM) and are licensed per site and concurrent user. ASME offerings are available to remote users, through dedicated remote sites.

Not included in ASME Collections:

- Companion guides
- Criteria of BPVC design
- Guide for ASME Stamp Holders



Offerings are listed as Online

Online indicates the online delivery of the content via Engineering Workbench, the one online platform that simplifies and expedites the process for finding and efficiently managing standards and related information.

Material code Number (SAP): Various

Accuris provides the ASME Boiler & Pressure Vessel Code (BPVC) in Collections, Individual Sections & Packages. please note the BPVC is not available in Custom Blocks or Custom Collections. This Tech Spec provides an overview of the different BPVC package offerings.

ASME BPVC, Standards and Performance Test Code (PTCs) Collection

ASME Complete Collection of ASME BPVC,

Standards and PTCs

This is an inclusive "Complete Collection" of the ASME Standards, Performance Test Codes (PTCs), and all sections of the BPVC as well as Code Cases, Interpretations and Errata.

SAP Material#	Description
2000048372	ASME - BPVC Complete 1983-Fwd with ASME Standards / PTCs Collection A/H - Online

ASME BPVC Collections

ASME BPVC Complete Collections

The ASME BPVC Complete Collections include all sections of the Code as well as Code Cases, Interpretations, Errata and Summary of Significant Changes. The ASME BPVC Complete Collection is available with or without the ASME Referenced Standards, which are those ASME Standards listed in the current edition of the BPVC. Please refer to the ASME BPVC Reference Standards Tech Spec for details. Content not included:

ASME BPVC Complete Collection includes:

- ASME/BPVC Section I, Rules for Construction of Power Boilers
- ASME/BPVC Section II, Materials, Part A, Ferrous Material Specifications (Beginning to SA-450)
- ASME/BPVC Section II, Materials, Part A, Ferrous Material Specifications (SA-451 to End)
- ASME/BPVC Section II, Materials, Part B, Nonferrous Material



Specifications

- ASME/BPVC Section II, Materials, Part C, Specifications for Welding Rods, Electrodes, and Filler Metals
- ASME/BPVC Section II, Materials, Part D, Properties (Customary)
- ASME/BPVC Section II, Materials, Part D, Properties (Metric)
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 1, Subsection NB, Class 1 Components
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 1, Subsection NCD, Class 2 and 3 Components
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 1, Subsection NE, Class MC Components
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 1, Subsection NF, Supports
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 1, Subsection NG, Core Support Structures
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 2, Code for Concrete Containments
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 3, Containment Systems for Transportation and Storage of Spent Nuclear Fuel and High-Level Radioactive Material
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 4, Fusion Energy Devices
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Division 5, High Temperature Reactors
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Subsection NCA, General Requirements for Division 1 and Division 2
- ASME/BPVC Section III, Rules for Construction of Nuclear Facility Components, Subsection NCA, General Requirements for Division 1 and Division 2
- ASME/BPVC Section IV, Rules for Construction of Heating Boilers
- ASME/BPVC Section V, Nondestructive Examination
- ASME/BPVC Section VI, Recommended Rules for the Care and Operation of Heating Boilers
- ASME/BPVC Section VII, Recommended Guidelines for the Care of Power Boilers
- ASME/BPVC Section VIII, Rules for Construction of Pressure Vessels, Division 1
- ASME/BPVC Section VIII, Rules for Construction of Pressure Vessels, Division 2, Alternative Rules
- ASME/BPVC Section VIII, Rules for Construction of Pressure Vessels, Division 3, Alternative Rules for Construction of High-Pressure Vessels
- ASME/BPVC Section IX, Welding, Brazing, and Fusing Qualifications
- ASME/BPVC Section X, Fiber-Reinforced Plastic Pressure Vessels
- ASME/BPVC Section XI, Rules for Inservice Inspection of Nuclear Reactor Facility Components, Division 1, Rules for Inspection and



Testing of Components of Light-Water-Cooled Plants

- ASME/BPVC Section XI, Rules for Inservice Inspection of Nuclear Reactor Facility Components, Division 2, Requirements for Reliability, and Integrity Management (RIM) Programs for Nuclear Reactor Facilities
- ASME/BPVC Section XII, Rules for Construction and Continued Service of Transport Tanks
- ASME/BPVC Section XIII, Rules for Overpressure Protection
- ASME/BPVC Code Cases: Boilers and Pressure Vessels
- ASME/BPVC Code Cases: Nuclear Components
- ASME/BPVC Summary of Significant Changes: Sections I, II, V, and IX
- ASME/BPVC Summary of Significant Changes: Sections III, II, V, and IX
- ASME/BPVC Summary of Significant Changes: Sections IV, II, V, and IX
- ASME/BPVC Summary of Significant Changes: Sections VIII, XII, II, V, and IX
- ASME/BPVC Summary of Significant Changes: Sections X, II, and V
- ASME/BPVC Summary of Significant Changes: Sections XI, II, V, and IX

ASME BPVC Complete without ASME BPVC

Referenced Standards

SAP Material#	Description
2000048377	ASME - BPVC Complete 1983-Fwd without ASME Reference Standards A/H - Online

ASME BPVC Complete with ASME BPVC Referenced

Standards

SAP Material#	Description
2000048376	ASME - BPVC Complete 1983-Fwd with ASME Reference Standards A/H - Online

ASME BPVC Packages

ASME BPVC Pressure Technology

The ASME BPVC Pressure Technology Package is a comprehensive suite of standards that cover the design and construction requirements, examination, testing methods, overpressure protection, and more for boilers, pressure vessels, and transport tanks. These standards include requirements for design and design-by-analysis methods, material selection, fabrication, examination, testing, and overpressure protection, along with providing requirements for establishing and executing a quality assurance program. These standards may be used for many products and



applications, aiding in their safety & overall quality. Additionally, this package provides requirements for ASME certification, application of the ASME Code Symbol Stamp, and use of Code Data Reports; for the construction of components, assuring their pressure boundary integrity and structural integrity. This supports a user's ability to achieve the operational, cost and safety benefits that can be derived from the many industry best-practices detailed within these documents. The ASME BPVC Pressure Technology package is available with or without the ASME Referenced Standards, which are those ASME Standards listed in the current edition of the BPVC. Please refer to the ASME BPVC Reference Standards Tech Spec for details.

ASME BPVC Pressure Technology Package

includes:

- ASME/BPVC Section I
- ASME/BPVC Section II A
- ASME/BPVC Section II B
- ASME/BPVC Section II C
- ASME/BPVC Section II D (Customary)
- ASME/BPVC Section II M (Metric)
- ASME/BPVC Section IV
- ASME/BPVC Section V
- ASME/BPVC Section VI
- ASME/BPVC Section VII
- ASME/BPVC Section VIII
- ASME/BPVC Section VIII
- ASME/BPVC Section VIII
- ASME/BPVC Section IX
- ASME/BPVC Section X

- ASME/BPVC Section XII
- ASME/BPVC Section XIII
- ASME/BPVC Code Cases: BPV
- ASME/BPVC SSC: Sections I,II,V,&IX
- ASME/BPVC SSC: Sections III,II,V,&IX
- ASME/BPVC SSC: Sections IV,II,V,&IX
- ASME/BPVC SSC: Sections VIII, XII, II,V,& IX
- ASME/BPVC SSC: Sections X,II,&V
- ASME/BPVC SSC: Sections XI,II,V,&IX
- ASME CA-1

ASME BPVC Pressure Technology without ASME

Reference Standards

SAP Material#	Description
2000054395	ASME/BPVC Pressure Technology 1983-Fwd wDRM -Online



ASME BPVC Pressure Technology with ASME Reference Standards

SAP Material#	Description
2000054394	ASME/BPVC Pressure Technology with ASME BPVC Reference Standards 1983-Fwd - Online

ASME Nuclear Technology Package:

This package covers inspection techniques, design, and construction requirements, testing methods, and more across large light water, advanced reactor and small modular reactor designs which support its future development and use. These standards include design and designanalysis methods for nuclear technology, material selection, manufacturing, examination, testing, & overpressure protection, and provide requirements for establishing and executing a quality assurance program. These standards include provisions for construction techniques such as chemical, heat treatment, welding requirements and mechanical properties for many products and applications, aiding safety & quality. This package helps users comply with applicable regulations within their jurisdiction. Additionally, provides requirements for ASME certification, application of the ASME Code Symbol Stamp, and use of Code Data Reports; for the construction of nuclear facility components, assuring their pressure boundary integrity and the structural integrity. This supports a user's ability to achieve the operational, cost and safety benefits that can be derived from the many industry best-practices detailed within these documents. The ASME BPVC Pressure Technology package is available with or without the ASME Referenced Standards, which are those ASME Standards listed in the current edition of the BPVC. Please refer to the ASME BPVC Reference Standards Tech Spec for details.

ASME BPVC Nuclear Technology Package includes:

- ASME/BPVC Section II A
- ASME/BPVC Section II B
- ASME/BPVC Section II C
- ASME/BPVC Section II D (Customary)
- ASME/BPVC Section II D (Metric)
- ASME/BPVC Section III
 Subsection NB
- ASME/BPVC Section III
 Subsection NCD

- ASME/BPVC Section III Subsection NE
- ASME/BPVC Section III Subsection NF
- ASME/BPVC Section III
 Subsection NG
- ASME/BPVC Section III Division 2
- ASME/BPVC Section III Division 3



- ASME/BPVC Section III Division 4
- ASME/BPVC Section III Division 5
- ASME/BPVC Section III Subsection NCA
- ASME/BPVC Section III Appendices
- ASME/BPVC Section V
- ASME/BPVC Section IX

- ASME/BPVC Section XI
- ASME/BPVC Section XIII
- ASME/BPVC Code Cases: Nuclear
- ASME/BPVC SSC: Sections
 I, II, V, & IX
- ASME/BPVC SSC: Sections III, II, V, &
- IX
- ASME CA-

ASME BPVC Nuclear Technology without ASME Reference Standards

SAP Material #	Description
2000054420	ASME/BPVC Nuclear Technology 1983-Fwd - Online

ASME BPVC Nuclear Technology with ASME Reference Standards

SAP Material #	Description
2000054396	ASME/BPVC Nuclear Technology with ASME Ref Standards 1983-Fwd - Online

ASME Certification Packages

These packages contain the required Code books for specific ASME Certification Marks. Products manufactured by ASME BPVC Certificate Holders are certified and stamped with the Certification Mark in accordance with the applicable ASME BPVC Section.



ASME PP & S Stamp Package

This package includes the required code books needed for the PP (Pressure Piping) and S (Power Boiler) stamps.

- ASME/BPVC Section I Rules for Construction of Power Boilers
- ASME/BPVC Section II Material Specifications, Parts A-C
 - II A Materials Part A Ferrous Materials Specifications (2 Volumes)
 - II B Materials Part B Nonferrous Material Specifications
 - II C Specifications for Welding Rods, Electrodes & Filler Metals
 - II D Materials Part D Properties (Customary OR Metric)
- ASME/BPVC Section V Non-destructive Examination
- AMSE/BPVC Section IX Welding, Brazing & Fusing Qualifications
- ASME B31.1 Power Piping
- ASME CA-1 Conformity Assessment Requirements

SAP Material#	Description
2000048392	ASME - BPVC PP&S Stamps (I, II, IID Customary, V, IX, Interpretations, B31.1, CA-1) 1983-Fwd A/H - Online
2000048393	ASME - BPVC PP&S Stamps (I, II, IID Metric, V, IX, Interpretations, B31.1, CA-1) 1983-Fwd A/H - Online

ASME U1 & UM Stamp Package

This package includes the required code books needed for the UM (Pressure Vessels Div.1) and UM (Miniature Pressure Vessels) stamps:

- ASME/BPVC Section II Material Specifications, Parts A-C
 - II A Materials Part A Ferrous Materials Specifications (2 Volumes)
 - o II B Materials Part B Nonferrous Material Specifications
 - o II C Specifications for Welding Rods, Electrodes & Filler Metals
 - II D Materials Part D Properties (Customary OR Metric)
- ASME/BPVC Section V Non-destructive Examination
- ASME/BPVC Section VIII Div.1 Rules for Construction of Pressure Vessels Division 1
- ASME/BPVC Section IX Welding, Brazing & Fusing Qualifications
- ASME CA-1 Conformity Assessment Requirements



ASME BPVC Historical Package

Available as a separate package, Accuris is uniquely able to provide as a collection, the historical 1971-1980 editions of the ASME BPVC. This content provides rules of safety governing the design, fabrication, and inspection of boilers, pressure vessels and nuclear power plant components during construction.

- The ASME BPVC is relevant for:
- Boilers and pressure vessels
- Power producing machines (and associated subsystems)
- Nuclear facility components

ASME BPVC Historical Package includes:

- ASME/BPVC 1971 Edition with
 - o 1971 Addenda
 - o 1972 Addenda
 - o 1973 Addenda
- ASME/BPVC 1974 Edition with
 - o 1974 Addenda
 - o 1975 Addenda
 - o 1976 Addenda

- ASME/BPVC 1977 Edition with
 - o 1977 Addenda
 - o 1978 Addenda
 - o 1979 Addenda
- ASME/BPVC 1980 Edition with
 - o 1980 Addenda
 - o 1981 Addenda
 - o 1982 Addenda

SAP Material #	Description
2000048378	ASME - BPVC Historical 1971-1980 - Online



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