FRAMEWORK ENGINEERING
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Applicable Standards for Ball Valve (Design & Manufacturing)

Below is a list of some of the applicable standards for ball valves. This list is not exhaustive and for your information only.

The list will provide the user with a checklist to verify the customer requirements and your design comply to various standards.

API Standards

Standard	Description
API 6D	This standard specifies requirements and gives recommendations for the design, manufacturing, testing, and documentation of ball, check, gate, and plug valves for pipeline and piping systems.
API 608	This standard covers the design, manufacturing, testing, and inspection of metal ball valves for use in petroleum, petrochemical, and natural gas industries.
API 6A	This standard specifies the requirements for wellhead and Christmas tree equipment, including ball valves, used in the oil and gas industry.
API 607	This standard specifies the fire test requirements for quarter-turn valves, including ball valves, with floating and trunnion mounted ball designs.
API 6FA	This standard specifies the fire test requirements for valves, including ball valves, used in petroleum and natural gas industry.
API 598	This standard specifies the testing requirements for valve inspection and testing, including ball valves, used in pipeline and piping systems.

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ASME Standards

Standard	Description
ASME B16.34	This standard covers the design, materials, dimensions, and pressure-temperature ratings for forged and cast steel valves, including ball valves, used in industrial applications.
ASME B16.5	This standard covers the dimensions, pressure-temperature ratings, materials, and markings for pipe flanges and flanged fittings, including ball valve flanges.
ASME B16.47	This standard covers the dimensions, pressure-temperature ratings, materials, and markings for large diameter steel flanges, including ball valve flanges.
ASME B16.10	This standard covers the face-to-face dimensions for valves, including ball valves, used in pipeline applications.
ASME B16.25	This standard covers the end-to-end dimensions for butt-welding ends of valves, including ball valves.
ASME B31.1	This standard covers the power piping systems used in nuclear and fossil fuel power plants and specifies requirements for the design, materials, fabrication, and testing of valves, including ball valves, used in these systems.
ASME B31.3	This standard covers the process piping systems in industrial plants and specifies requirements for the design, materials, fabrication, and testing of valves, including ball valves, used in these systems.
ASME BPVC Section III	This section of the Boiler and Pressure Vessel Code covers the rules for the construction of nuclear power plant components, including valves, including ball valves.

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ISO Standards

Standard	Description
ISO 7121	This International Standard covers the requirements for floating ball valves of steel, nickel alloys, and other alloys for general purpose applications.
ISO 14313	This International Standard covers the requirements for steel valves used in pipeline transportation systems for the petroleum and natural gas industries, including ball valves.
ISO 17292	This International Standard covers the requirements for metal-seated ball valves for petroleum, petrochemical, and natural gas industries.
ISO 21457	This International Standard covers the requirements for ball valves with double stem sealing for petroleum, petrochemical, and natural gas industries.
ISO 5208	This International Standard covers the pressure testing of industrial valves, including ball valves.
ISO 5211	This International Standard covers the requirements for mounting pad dimensions of ball valves, including actuator mounting dimensions.

British Standards

Standard	Description
BS 5351	This standard covers the design, manufacturing, and testing of steel ball valves for the petroleum, petrochemical, and allied industries.
BS EN ISO 17292	This standard specifies requirements and gives recommendations for the design, manufacturing, testing, and inspection of metal ball valves for petroleum, petrochemical, and natural gas industries.
BS 5352	This standard specifies the requirements for steel wedge gate, globe, and check valves, including ball valves, for general refinery and petrochemical services.
BS 5146	This standard specifies the requirements for copper alloy ball valves for waterworks purposes.
BS 6364	This standard covers the design and testing requirements for valves, including ball valves, used in offshore applications.
BS EN 1983	This standard covers the design and testing requirements for ball valves with PN 10 to PN 40 pressure rating for use in gas supply systems.

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MSS Standards

Standard	Description
MSS SP-110	This standard covers the requirements for ball valves for general purpose and specialized applications.
MSS SP-72	This standard covers the design, materials, dimensions, and pressure-temperature ratings for ball valves with flanged or butt-welding ends.
MSS SP-25	This standard covers the standard marking system for valves, including ball valves, to indicate the material, pressure rating, size, and other important information.
MSS SP-78	This standard covers the standard for end-to-end dimensions for soft-seated, metal-seated, and combined soft and metal-seated quarter-turn valves, including ball valves.
MSS SP-61	This standard covers the pressure testing requirements for steel valves, including ball valves, used in petroleum and natural gas industry.
MSS SP-85	This standard covers the design, materials, testing, and inspection requirements for high-pressure, angle, and straight-through ball valves.
MSS SP-90	This standard covers the design, materials, and testing requirements for manually operated metallic gas ball valves.
MSS SP-147	This standard covers the materials, design, manufacture, and testing of ball valves for cryogenic service.

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German Standards

Standard	Description
DIN 3357	This standard covers the dimensions and testing requirements for ball valves used in industrial applications.
DIN 3202	This standard specifies the requirements for face-to-face and center-to-face dimensions of flanged ball valves.
DIN 2543	This standard specifies the dimensions and testing requirements for flanged ball valves with PN 16 pressure rating.
DIN 2544	This standard specifies the dimensions and testing requirements for flanged ball valves with PN 25 pressure rating.
DIN 2545	This standard specifies the dimensions and testing requirements for flanged ball valves with PN 40 pressure rating.
DIN 3352	This standard covers the design and testing requirements for ball valves with PN 10 to PN 100 pressure rating for use in water supply and wastewater systems.
DIN EN 12516	This standard specifies the pressure-temperature ratings, materials, and dimensions for valves used in industrial applications.
DIN EN 183	This standard covers the design and testing requirements for ball valves with PN 10 to PN 40 pressure rating for use in gas supply systems.
DIN EN 12266	This standard specifies the testing and inspection requirements for industrial valves, including ball valves, used in pipeline systems.

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Japanese Standards

Standard	Description
JIS B2071	This standard covers the design and testing requirements for ball valves used in general industrial applications.
JIS B2073	This standard specifies the dimensions, materials, and pressure-temperature ratings for ball valves with flanged ends.
JIS B2074	This standard specifies the dimensions, materials, and pressure-temperature ratings for ball valves with butt-welding ends.
JIS B2002	This standard covers the face-to-face dimensions for valves, including ball valves, used in pipeline applications.
JIS B2003	This standard covers the end-to-end dimensions for valves, including ball valves, with threaded or flanged ends.
JIS B2212	This standard specifies the materials, dimensions, and pressure-temperature ratings for ball valves for petroleum, petrochemical, and natural gas industries.
JIS B2214	This standard specifies the materials, dimensions, and pressure-temperature ratings for ball valves for high-temperature service.
JIS B2220	This standard covers the dimensions, materials, and pressure-temperature ratings for steel pipe flanges, including ball valve flanges

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Indian Standards

Standard	Description
IS 9898	This Indian standard specifies the requirements for ball valves with flanged or screwed ends for use in general industrial applications.
IS 12651	This Indian standard specifies the requirements for ball valves with butt-welding ends for use in general industrial applications.
IS 14846	This Indian standard specifies the requirements for ball valves with socket-welding or threaded ends for use in general industrial applications.
IS 6165	This Indian standard specifies the face-to-face dimensions for ball valves used in pipeline applications.
IS 6713	This Indian standard specifies the end-to-end dimensions for valves, including ball valves, used in piping systems.
IS 778	This Indian standard specifies the materials, dimensions, and pressure-temperature ratings for steel pipe flanges, including ball valve flanges.