

ARD-BV-002

Top-entry cryogenic ball valve



A top-entry body arrangement giving access to internal components, with an extended bonnet and cavity pressure-relief design.

Sizes and pressure ratings depend on construction, materials and configuration. Confirm the selected pressure-temperature rating with the quotation.

Product illustration. Appearance and dimensions depend on the selected configuration.

Selection	Specification
Size range	1/2-20 in cast / 1/2-36 in forged
Pressure ratings	ASME Class 150-1500
Temperature	Down to -196°C
Connections	Socket weld (SW) · Butt weld (BW) · Flanged

Define your requirement

Specify medium, design pressure and temperature, nominal size, connection standard, operation, quantity and required inspection documentation.

View this product and request a quotation

This catalogue datasheet supports selection and enquiry. It is not a certified pressure-temperature curve, installation drawing or order-specific approval.

Technical specification

Parameter	Specification
Size range	1/2-20 in cast / 1/2-36 in forged
Pressure ratings	ASME Class 150-1500
End connections	Socket weld (SW) · Butt weld (BW) · Flanged
Temperature range	Down to -196°C
Referenced design standards	BS 5351; ASME B16.34; B16.25 / B16.5
Referenced pressure / seat tests	API 598; BS 6364

End connections

Illustrated arrangement: Flanged ends on the pictured top-entry configuration.

Connection detail	Selection requirement
Published connection	Socket weld, butt weld or flanged
Referenced connection standards	BW: ASME B16.25; flanged: ASME B16.5. A SW standard is not specified on this page.
Weld selection	Specify pipe OD, wall thickness/schedule, material and weld preparation. SW and BW are different connections.
Flange selection	Specify nominal size, flange rating, facing, drilling and gasket. Do not infer these from the image alone.

Materials

Component	Material / option
Body	Forged Steel - ASTM A182-F304(L)/F316(L) Cast Steel - ASTM A351-CF8(M)/CF3(M)
Bonnet	Forged Steel - ASTM A182-F304(L)/F316(L) Cast Steel - ASTM A351-CF8(M)/CF3(M)
Seat	PCTFE/METAL
Ball	A182 F304(L)/316(L)+Ni60
Stem	XM-19
Gasket	SPIRAL WOUND GRAPHITE
Gland Packing	SS316+Graphite

Configuration features

- Top-entry access
- Extended bonnet with drip plate
- Floating or trunnion-mounted ball
- Full- or reduced-bore options

- Manual, pneumatic, electric or hydraulic operation
- Uni- or bidirectional options; DBB design
- Live-loaded stem sealing
- Detachable seat assembly
- Cavity pressure relief
- Antistatic and anti-blowout features

Selection notes

Sizes and pressure ratings depend on construction, materials and configuration. Confirm the selected pressure-temperature rating with the quotation.

Published series limits are not a size-by-pressure availability matrix. Materials, temperature capability, leakage class, testing and certification are confirmed for the selected configuration.

PN, ASME Class and safety-valve set pressure are separate values. Confirm allowable pressure versus temperature, material compatibility, oxygen cleaning, trapped-liquid relief and required certification for the selected assembly. Liquid hydrogen and helium service require a separate assessment.