

HIGH CONDUCTANCE BALL VALVE



PATENTED FULLY STABILIZED STEM DESIGN

Fully bored ball port

Evac hole

Teflon® seat

Configurable flange connections

316L machined stainless steel ball and body

Description

ANCORP's High Conductance (HC) Vacuum Ball Valve is the latest and largest addition to the patented Extended Life ball valve series. The HC provides maximum conductance with its fully ported ball and reduced overall length, two-piece 316L stainless steel body.

Its improved smooth contour maximizes heat transfer between the valve and heating components. The valve is opened or closed manually or pneumatically by 1/4 turn, quick actuation.

Applications

The HC Ball Valve is manufactured from corrosive resistant materials to perform very effectively in aggressive processes and on exhaust lines. This valve can be configured to be heated and insulated for temperature stability inside the valve. Body and stem seals can be changed to meet customer specific processes as required.

This valve also works exceptionally well in systems that create deposition within the vacuum lines. The Teflon® sealing surface is protected from direct deposition, maintaining a clean dynamic seal to prevent failure due to contamination. The HC Ball Valve is an extremely robust high vacuum valve designed to perform in the most challenging of environments.

Features:

- **Fully bored ball port:** Maximizes conductance with straight-through, unimpeded flow
- **Minimized overall length and slimmer profile:** Increases conductance and reduces weight and footprint
- **Two-piece body:** One less body O-ring seal means one less potential leak path and huge maintenance cost reductions when using perfluoroelastomers
- **Smooth contour:** Maximizes heat transfer from heating components
- **Extra space between body & handle brackets:** Minimum of 5/8" clearance allows more room for heating components
- **Adjustable stroke pneumatic actuator:** Adjusts to +/-5° to ensure proper open/close over life of the valve
- **Integrated handle lock:** Prevents accidental opening/closing. Lock out-tag out ready

PATENTED FULLY STABILIZED STEM DESIGN

XL Stem Design minimizes wetted components

A&N CORPORATION US PATENTS:

US 8,496,227 B2, US 8,905,375 B2, US 8,936,231 B2

HC BALL VALVE SPECIFICATIONS

Vacuum and temperature ratings

- Vacuum rated to 1×10^{-8} Torr
- Helium leak rated less than 1×10^{-9} std. cc/s
- Standard fluoroelastomer seal:
-26°C to 150°C (-15°F to 302°F)

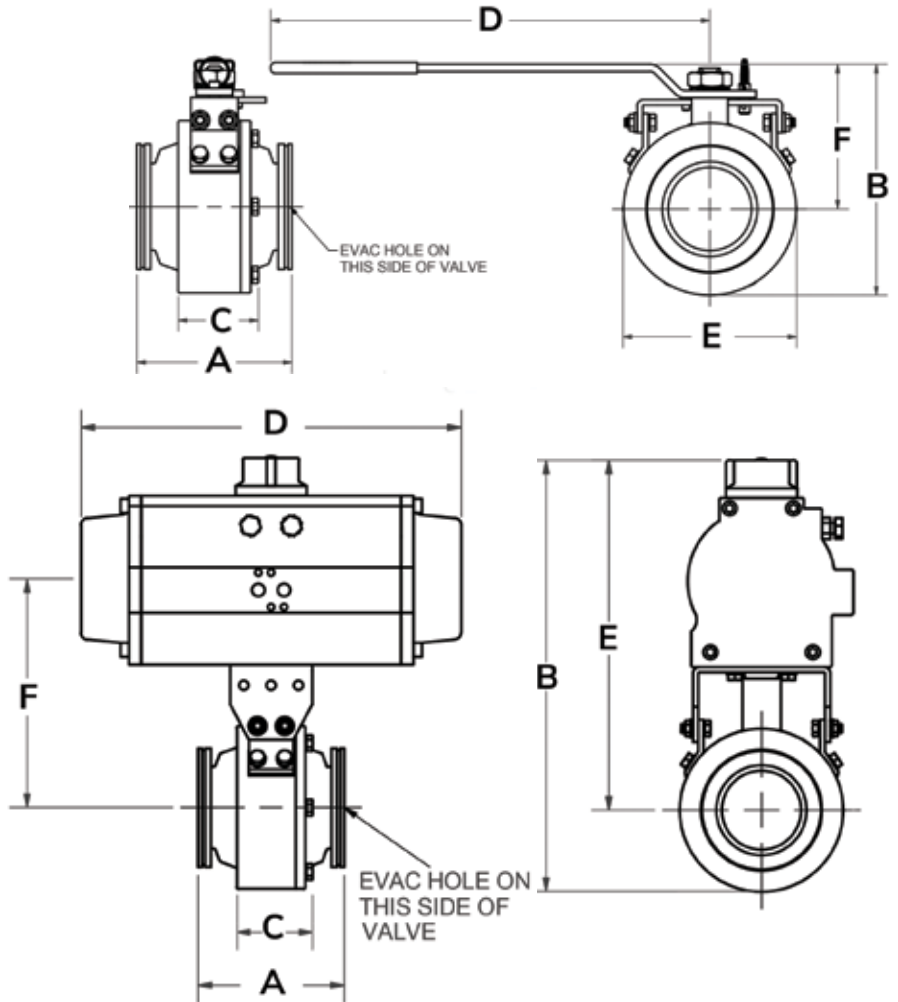
Materials

- Valve body, ball, stem, and end cap body: machined from solid 316L stainless steel
- Standard seal: fluoroelastomer (other options available)
- Seats: PTFE
- Lubricant: Dow Corning® High Vacuum Grease (other options available)

Pneumatic

- Actuator operating pressure: 80 psig
- Actuator temperature range:
- Dry air: -20°C to 150°C (-5°F to 317.5°F)
- Both Air-to-Open, Spring-to-Close (AS) single acting actuators and Air-to-Open, Air-to-Close (AA) double acting actuators are available
- "Fail-safe open" or "fail-safe closed" configuration available for ball valves with AS actuators
- 1/4 NPT air line hook-up
- The actuators used with HC valves have visual position indication as standard, and electrical position indicators are available
- Solenoids available for 120VAC, 240VAC or 24VDC versions

NOTE: All dimensions are measured in inches unless otherwise specified.



Manual

Part ID	Reference Number	Ball Port	Flange Type	End Cap Tube O.D.	Conduct. (L/s)	A	B	C	D	E	F
3007210	HC4250-LF63	2.375	LF63	2.5	205	5.10	7.4	2.8	15.1	5.4	4.7
3007310	HC4300-LF80	2.875	LF80	3.0	347	5.35	8.0	2.8	15.1	6.0	5.0
3007410	HC4400-LF100	3.875	LF100	4.0	657	6.86	9.4	2.8	15.1	7.4	5.7

Pneumatic

Part ID	Reference Number	Ball Port	Flange Type	End Cap Tube O.D.	Conduct. (L/s)	A	B	C	D	E	F
3007220	HC4250-LF63-AS	2.375	LF63	2.5	205	5.10	13.5	2.8	10.9	10.8	7.5
3007230	HC4250-LF63-AA	2.375	LF63	2.5	205	5.10	13.5	2.8	10.9	10.8	7.5
3007320	HC4300-LF80-AS	2.875	LF80	3.0	347	5.35	15.8	2.8	13.9	12.9	8.4
3007330	HC4300-LF80-AA	2.875	LF80	3.0	347	5.35	15.8	2.8	13.9	12.9	8.4
3007420	HC4400-LF100-AS	3.875	LF100	4.0	657	6.86	17.3	2.8	13.9	13.6	9.1
3007430	HC4400-LF100-AA	3.875	LF100	4.0	657	6.86	17.3	2.8	13.9	13.6	9.1

ANCORP's ball valves are routinely configured with non-standard seals and greases to meet system requirements for high temperature or highly corrosive applications. To have an ANCORP ball valve configured for your system, contact one of our Application Engineers at 800-352-6431.