

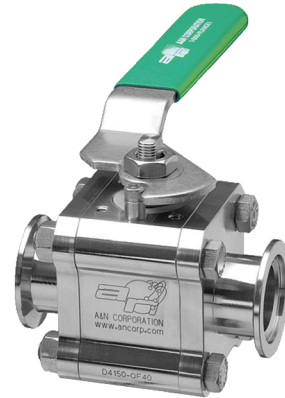
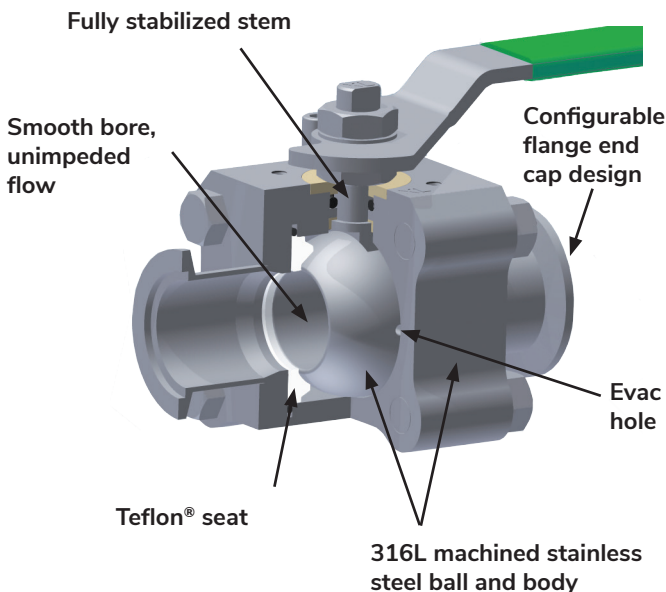
# EXTENDED LIFE (XL) HIGH VACUUM BALL VALVE

## Description

ANCORP'S ball valves consist of a body, stem, ball, and two end caps machined from corrosive resistant 316L stainless steel. Fluoroelastomers are used to seal the stem and end caps from atmosphere while the PTFE Teflon® seats cold flow around the ball to isolate the process when closed. The valve is opened and closed manually or pneumatically by ¼ turn, quick actuation. During actuation, the PTFE Teflon® seats wipe across the ball. This feature reduces particulate build-up, making this valve robust in particle-rich effluent streams.

## Applications

The corrosive resistant design of ANCORP'S vacuum ball valves make them ideal for isolating reactors, traps, and scrubbers on vacuum coating tools used for MOCVD, PVD, and other thin-film coating processes.



## The XL Difference

ANCORP'S XL ball valve is the latest generation of a long line of ANCORP vacuum ball valves. The XL improvements are centered on the stem design of the valve.

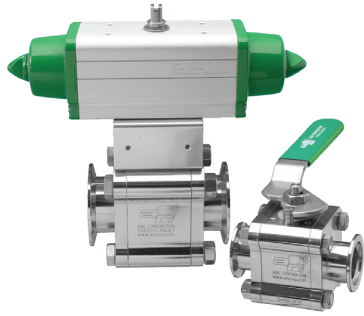
When leading OEM's came to ANCORP looking for a more durable valve for today's harsh coating processes, ANCORP engineers went to work testing new stem designs – the XL design was born. This patented design extends the stem seal life by 100X, has fewer wetted components, and features a fully stabilized stem along with all the other features of ANCORP ball valves. In short, the XL ball valve reduces valve maintenance, reduces tool downtime, and increases throughput. It's the reason ANCORP remains the leading innovator in vacuum ball valves.

- Poppetless design
- ¼ turn actuation
- Straight-through unimpeded flow
- Machined from corrosive resistant 316L stainless steel
- Rugged construction with few wetted components
- Leak tight in static and dynamic operation
- Ball and seat design reduces particulate buildup

## PATENTED XL DESIGN

- 10X longer cycle life
- Fully stabilized stem
- Reduced wetted components

# D, E, F SERIES XL BALL VALVE



## Specifications

### Vacuum and temperature ratings

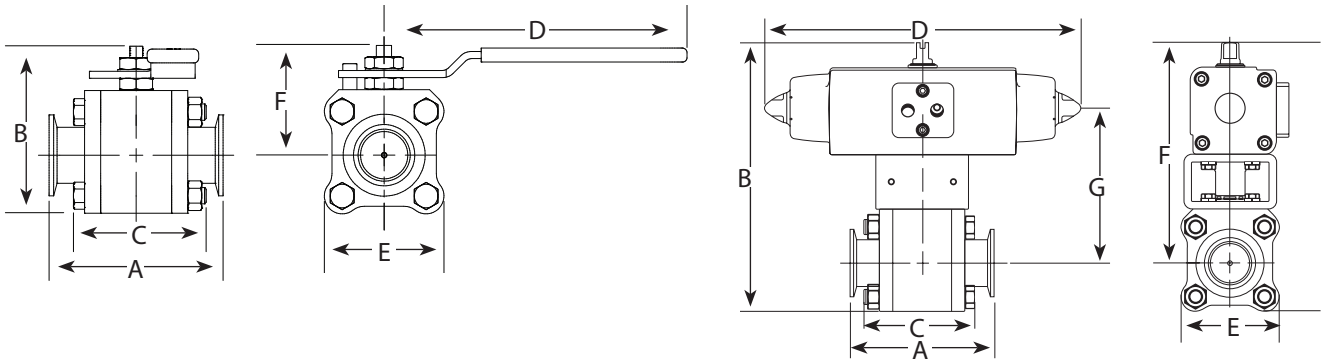
- Vacuum rated to  $1 \times 10^{-8}$  Torr
- Helium leak rated less than  $1 \times 10^{-9}$  std. cc/sec
- Standard fluoroelastomer seal:  
-26°C to 150°C (-15°F to 302°F)

### Materials

- Valve body, ball, stem, and end caps: machined from solid 316L stainless steel
- Standard seal: fluoroelastomer
- Seats: PTFE Teflon®
- Lubricant: Dow Corning® High Vacuum Grease

### Pneumatic

- Actuator operating pressure: 80 - 120 psig
- Actuator temperature range:  
- Moist air: 0°C to 150°C (32°F to 302°F)  
- Dry air: -20°C to 150°C (-4°F to 302°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
- 1/8 NPT air line hook-up
- Visual and mechanical position indicators available
- Solenoids available for 120VAC, 240VAC or 24VDC versions



## Manual

Part Number	Reference Number	Ball Port	End Cap Type	End Cap Tube Size	Conduct. (L/SEC)	A	B	C	D	E	F
3000032	D4150-QF40	1.25"	QF40	1 1/2" O.D.	35	4.65	4.5	3.5	8.0	3.2	2.9
3000035	E4200-QF50	1.50"	QF50	2" O.D.	57	4.97	4.9	3.9	8.0	3.5	3.1
3002035	F4200-QF50	1.87"	QF50	2" O.D.	87	6.31	5.4	4.3	8.0	4.1	3.5

## Pneumatic

Part Number	Reference Number	Ball Port	End Cap Type	End Cap Tube Size	Conduct. (L/SEC)	A	B	C	D	E	F	G
3009135	D4150-QF40-AS	1.25"	QF40	1 1/2" O.D.	35	4.65	8.6	3.5	10.2	3.2	7.0	5.0
3008135	D4150-QF40-AA	1.25"	QF40	1 1/2" O.D.	35	4.65	8.6	3.5	7.8	3.2	7.0	5.0
3009150	E4200-QF50-AS	1.50"	QF50	2" O.D.	57	4.97	9.0	3.9	10.2	3.5	7.2	5.2
3008150	E4200-QF50-AA	1.50"	QF50	2" O.D.	57	4.97	9.0	3.9	7.8	3.5	7.2	5.2
3009165	F4200-QF50-AS	1.87"	QF50	2" O.D.	87	6.31	10.0	4.3	12.0	4.1	8.0	5.7
3008165	F4200-QF50-AA	1.87"	QF50	2" O.D.	87	6.31	10.0	4.3	9.3	4.1	8.0	5.7