



A-T Controls' Series LB ball valves feature the latest technology in PFA. These fully lined ball valves are available with stainless steel or epoxy coated carbon steel body. The superior PFA lining is able to withstand temperatures up to 400°F and demonstrates greater durability than PTFE. This high purity PFA has extremely low gas permeability and outperforms other materials in critical services.

These split body valves feature adjustable packing. The lining thickness is at least 3mm. throughout the body and ball. One-piece ball and stem design reduces side loading and extends stem and packing life.

| VALVE SIZE | VALVE Cv |
|------------|----------|
| 1/2"       | 20       |
| 3/4"       | 20       |
| 1"         | 55       |
| 1-1/2"     | 210      |
| 2"         | 310      |
| 2-1/2"     | 210      |
| 3"         | 684      |
| 4"         | 1,546    |
| 6"         | 3,262    |
| 8"         | 4,565    |

**Excellent for:**

- Pharmaceutical
- Food and Beverage
- Paints and Solvents
- Caustics and Acids
- Deionized Water and Semiconductor

**Easy to Automate!**

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



**Series LB**

**PFA Lined Split Body Flanged Ball Valve**

Available in 316SST or WCB

Sizes 1/2"-8"

Flanged Ends - ASME Class 150

Full Port Design

Superior Packing System

PTFE Seats Standard

Lockable Manual Handle

Spark Test Standard (20 kV)

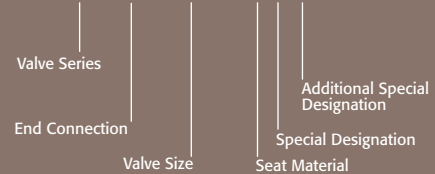
**STANDARDS**

|                         |               |
|-------------------------|---------------|
| Design & Manufactured   | API 608       |
| Face to Face Dimensions | ASME B16.10   |
| Flange End Connections  | ASME B16.5    |
| Pressure Testing        | API 598       |
| Material Certification  | EN 10204-3.1  |
| Quality Assurance       | ISO 9001:2015 |

**HOW TO ORDER MANUAL VALVES**

SAMPLE PART #

**LB-F1-0300-LXX**



See part number matrix for itemized options



9955 International Blvd.  
 Cincinnati, Ohio 45246  
 www.atcontrols.com  
 PHONE (513) 247-5465  
 FAX (513) 247-5462  
 sales@atcontrols.com

# Series LB

## High Performance, Full Port PFA Lined, Split Body Ball Valve ASME Class 150 Flanged Ends

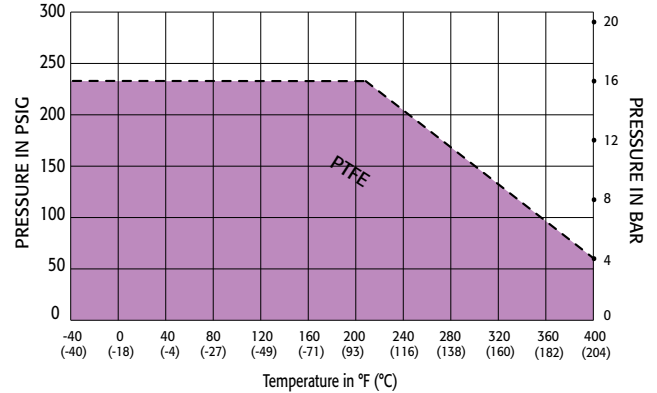
### MATERIALS LIST

| NO. | PART NAME          | QTY | STAINLESS STEEL          | CARBON STEEL            |
|-----|--------------------|-----|--------------------------|-------------------------|
| 1   | Body               | 1   | ASTM A351 GRADE CF8M/PFA | ASTM A216 GRADE WCB/PFA |
| 2   | End Cap            | 1   | ASTM A351 GRADE CF8M/PFA | ASTM A216 GRADE WCB/PFA |
| 3   | Ball               | 1   | ASTM A351 GRADE CF8M/PFA | ASTM A351 GRADE CF8/PFA |
| 4   | Seat               | 2   | PTFE                     | PTFE                    |
| 5   | Body Studs         | *   | ASTM A193 GRADE B8       | ASTM A193 GRADE B8      |
| 6   | Body Nut           | *   | ASTM A194 GRADE 8        | ASTM A194 GRADE 8       |
| 7   | Packing            | 1   | PTFE                     | PTFE                    |
| 8   | Packing Bushing    | 1   | AISI 304                 | AISI 304                |
| 9   | Packing Gland      | 1   | ASTM A351 GRADE CF8      | ASTM A351 GRADE CF8     |
| 10  | Anti-Static Spring | 1   | AISI 321                 | AISI 321                |
| 11  | Gland Stud         | 2   | AISI 304                 | AISI 304                |
| 12  | Gland Flat Washer  | 2   | AISI 321                 | AISI 321                |
| 13  | Gland Split Washer | 2   | AISI 321                 | AISI 321                |
| 14  | Gland Nut          | 2   | AISI 304                 | AISI 304                |
| 15  | Handle             | 1   | ASTM A351 GRADE CF8      | ASTM A351 GRADE CF8     |
| 16  | Handle Washer      | 1   | AISI 321                 | AISI 321                |
| 17  | Handle Bolt        | 1   | AISI 304                 | AISI 304                |
| 18  | Handle Stop        | 1   | AISI 304                 | AISI 304                |
| 19  | Handle Lock        | 1   | AISI 321                 | AISI 321                |
| 20  | Handle Lock Bolt   | 1   | AISI 304                 | AISI 304                |

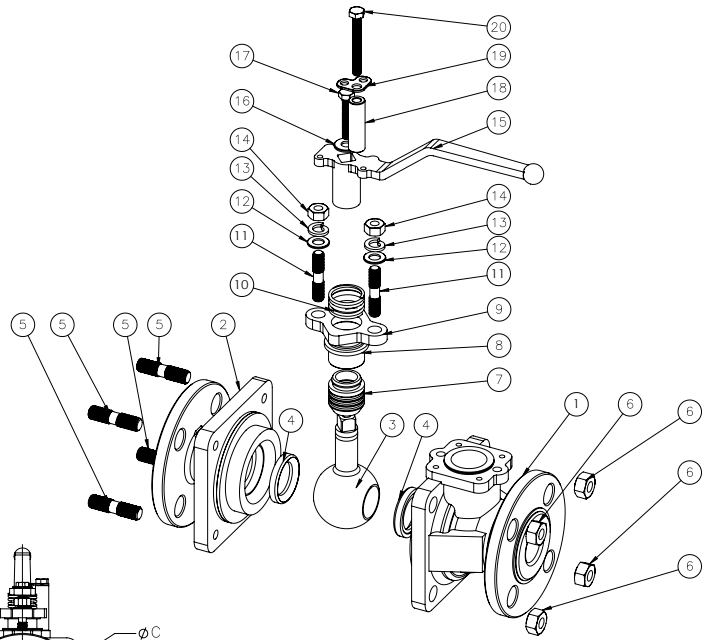
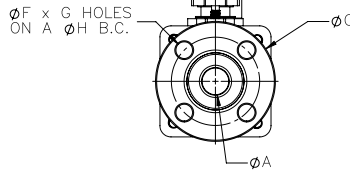
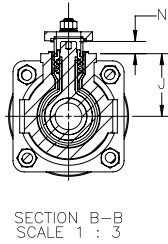
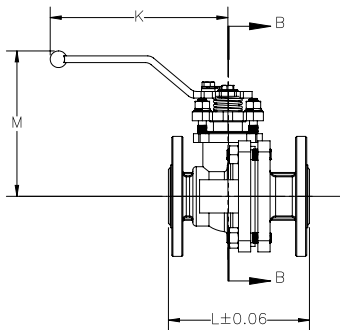
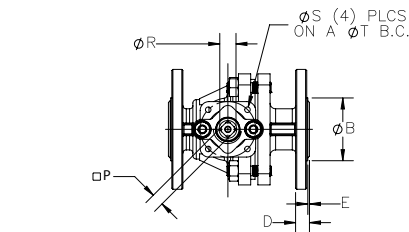
\* 1/2" THRU 2-1/2" - QTY 4  
\* 3" THRU 4" - QTY 6

\* 6" - QTY 8  
\* 8" - QTY 10

### Pressure vs. Temperature Chart



NOTE: The dotted line shows the rating for the valve body. Colored area shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application.  
**LBC Series is rated to -20° F, LB Series rated to -40° F.**



### Break Away Torque for PTFE Seats

| SIZE   | IN.-LBS. |
|--------|----------|
| 1/2"   | 80       |
| 3/4"   | 80       |
| 1"     | 100      |
| 1-1/2" | 185      |
| 2"     | 250      |
| 2-1/2" | 285      |
| 3"     | 475      |
| 4"     | 805      |
| 6"     | 1,300    |
| 8"     | 3,300    |

NOTE: For other seat material, consult factory

| SIZE   | VALVE DIMENSIONS |       |       |      |      |      |   |       |      |       |       | ACTUATOR MOUNTING DIMENSIONS |      |       |      |          |       |          |        |
|--------|------------------|-------|-------|------|------|------|---|-------|------|-------|-------|------------------------------|------|-------|------|----------|-------|----------|--------|
|        | ØA               | ØB    | ØC    | D    | E    | ØF   | G | H     | J    | K     | L     | M                            | N    | ØP    | ØR   | ØS       | T     | ISO 5211 | (LBS)  |
| 1/2"   | 0.59             | 1.38  | 3.50  | 0.44 | 0.06 | 0.63 | 4 | 2.38  | 2.03 | 6.30  | 4.25  | 5.04                         | 0.16 | 0.354 | 0.46 | 1/4"-20  | 1.969 | F05      | 7.72   |
| 3/4"   | 0.79             | 1.69  | 3.88  | 0.44 | 0.06 | 0.63 | 4 | 2.74  | 2.03 | 6.30  | 4.62  | 5.04                         | 0.16 | 0.354 | 0.46 | 1/4"-20  | 1.969 | F05      | 10.14  |
| 1"     | 0.98             | 2.00  | 4.25  | 0.44 | 0.06 | 0.63 | 4 | 3.12  | 2.22 | 6.30  | 5.00  | 5.24                         | 0.16 | 0.433 | 0.57 | 1/4"-20  | 1.969 | F05      | 11.02  |
| 1-1/2" | 1.50             | 2.88  | 5.00  | 0.56 | 0.06 | 0.63 | 4 | 3.88  | 2.76 | 7.87  | 6.50  | 6.30                         | 0.61 | 0.551 | 0.75 | 5/16"-18 | 2.756 | F07      | 24.25  |
| 2"     | 1.87             | 3.62  | 6.00  | 0.63 | 0.06 | 0.75 | 4 | 4.75  | 3.21 | 7.87  | 7.00  | 6.69                         | 0.53 | 0.551 | 0.75 | 5/16"-18 | 2.756 | F07      | 30.86  |
| 2-1/2" | 2.56             | 4.12  | 7.00  | 0.69 | 0.06 | 0.75 | 4 | 5.50  | 3.21 | 7.87  | 7.50  | 6.69                         | 0.53 | 0.748 | 0.75 | 5/16"-18 | 2.756 | F07      | 41.89  |
| 3"     | 3.15             | 5.00  | 7.50  | 0.75 | 0.06 | 0.75 | 4 | 6.00  | 4.45 | 10.24 | 8.00  | 9.05                         | 0.75 | 0.748 | 1.02 | 5/16"-18 | 2.756 | F07      | 63.49  |
| 4"     | 3.86             | 6.19  | 9.00  | 0.94 | 0.06 | 0.75 | 8 | 7.50  | 5.31 | 12.32 | 9.00  | 10.43                        | 0.91 | 0.748 | 1.02 | 3/8"-16  | 4.016 | F10      | 98.77  |
| 6"     | 5.75             | 8.50  | 11.00 | 1.00 | 0.06 | 0.87 | 8 | 8.50  | 7.26 | 21.06 | 10.50 | 14.45                        | 1.20 | 1.063 | 1.46 | 7/16"-14 | 4.921 | F12      | 212.08 |
| 8"     | 7.80             | 11.75 | 13.50 | 1.12 | 0.06 | 0.87 | 8 | 11.75 | 8.96 | -     | 11.50 | -                            | 1.36 | 1.417 | 1.97 | 9/16"-12 | 5.512 | F14      | 260.15 |

# Pneumatic Double Acting Automated Ball Valve Package

Series LB  
ASME Class 150  
Flanged PFA Lined Ball Valve

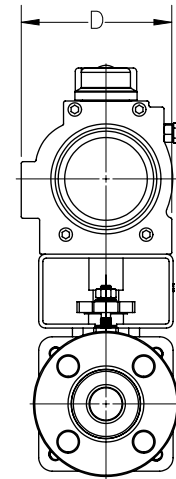
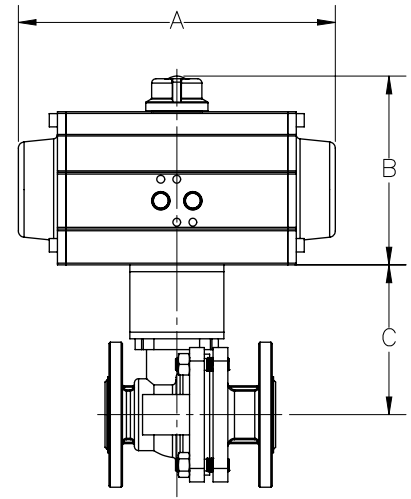
Available in 316SST or WCB  
Sizes 1/2"-8"  
Flanged Ends • ASME Class 150  
Full Port Design  
Superior Packing System  
PTFE Seats Standard  
Spark Test Standard (20 kV)

### STANDARDS

|                         |               |
|-------------------------|---------------|
| Design & Manufactured   | API 608       |
| Face to Face Dimensions | ASME B16.10   |
| Flange End Connections  | ASME B16.5    |
| Pressure Testing        | API 598       |
| Material Certification  | EN 10204-3.1  |
| Quality Assurance       | ISO 9001:2015 |



ASME Class 150 Flanged  
PFA Lined Ball Valve



### Double Acting Assembly DIMENSIONS (IN)

| VALVE SIZE | A     | B    | C     | D    | VALVE Cv |
|------------|-------|------|-------|------|----------|
| 1/2"       | 6.50  | 3.62 | 4.20  | 2.82 | 20       |
| 3/4"       | 6.50  | 3.62 | 4.20  | 2.82 | 20       |
| 1"         | 6.50  | 3.62 | 4.39  | 2.82 | 55       |
| 1-1/2"     | 7.60  | 4.25 | 5.38  | 3.35 | 210      |
| 2"         | 7.60  | 4.25 | 5.83  | 3.35 | 310      |
| 2-1/2"     | 7.60  | 4.25 | 5.83  | 3.35 | 210      |
| 3"         | 9.29  | 5.09 | 7.07  | 4.18 | 684      |
| 4"         | 11.02 | 5.40 | 8.31  | 4.27 | 1,546    |
| 6"         | 11.50 | 6.07 | 10.26 | 5.78 | 3,262    |
| 8"         | 15.35 | 7.99 | 11.96 | 5.98 | 4,565    |

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

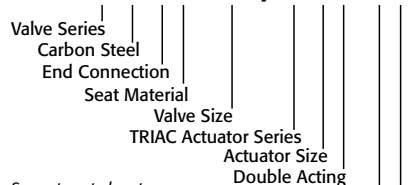
| SIZED FOR<br>80 psi AIR SUPPLY |                   |
|--------------------------------|-------------------|
| SIZE                           | MODEL             |
| 1/2"                           | LB-F1-050/3RDD-XX |
| 3/4"                           | LB-F1-075/3RDD-XX |
| 1"                             | LB-F1-100/3RDD-XX |
| 1-1/2"                         | LB-F1-150/3RED-XX |
| 2"                             | LB-F1-200/3RED-XX |
| 2-1/2"                         | LB-F1-250/3RED-XX |
| 3"                             | LB-F1-300/3RFD-XX |
| 4"                             | LB-F1-400/3RGD-XX |
| 6"                             | LB-F1-600/3RHD-XX |
| 8"                             | LB-F1-800/3RKD-XX |

| SIZED FOR<br>60 psi AIR SUPPLY |                   |
|--------------------------------|-------------------|
| SIZE                           | MODEL             |
| 1/2"                           | LB-F1-050/3RDD-XX |
| 3/4"                           | LB-F1-075/3RDD-XX |
| 1"                             | LB-F1-100/3RDD-XX |
| 1-1/2"                         | LB-F1-150/3RED-XX |
| 2"                             | LB-F1-200/3RFD-XX |
| 2-1/2"                         | LB-F1-250/3RFD-XX |
| 3"                             | LB-F1-300/3RFD-XX |
| 4"                             | LB-F1-400/3RHD-XX |
| 6"                             | LB-F1-600/3RJD-XX |
| 8"                             | LB-F1-800/3RLD-XX |

| OPTIONS  |                                 |                   |
|----------|---------------------------------|-------------------|
| SUFFIX 1 | Accessories/Options             | Model no.         |
| X        | No Specials                     |                   |
| A        | TYPE 4 Solenoid 120VAC          | TVCS-X411-4N-A120 |
| B        | TYPE 7 Solenoid 120VAC          | TVC6-X411-7N-A120 |
| C        | Intrinsically Safe Solenoid     | TVIS-X411-4N-D24  |
| D        | TYPE 4 Solenoid 24VDC           | TVCS-X411-4N-D24  |
| F        | TYPE 7 Solenoid 24VDC           | TVC6-X411-7N-D24  |
| Q        | TYPE 4 SST Solenoid 120VAC      | TVSS-X411-4N-A120 |
| M        | TYPE 7 SST Solenoid 120VAC      | TVSS-X411-7N-A120 |
| L        | TYPE 4 SST Solenoid 24VDC       | TVSS-X411-4N-D24  |
| N        | TYPE 7 SST Solenoid 24VDC       | TVSS-X411-7N-D24  |
| P        | Pneumatic Positioner            | PPR-1200          |
| E        | Electro-Pneumatic Positioner    | EPR-1000          |
| SUFFIX 2 | Accessories                     | Model no.         |
| X        | No Specials                     |                   |
| A        | TYPE 4 Limit Switch             | APL-210N          |
| B        | TYPE 7 Limit Switch             | APL-510N          |
| C        | Intrinsically Safe Limit Switch | APL-218N          |
| Q        | TYPE 4 SST Limit Switch         | APL-910N          |
| M        | TYPE 7 SST Limit Switch         | APL-510S          |

Other options available - call for details  
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

SAMPLE PART #  
**LBC-F1-150/3RED-XX**



See automated part number matrix on back cover for complete part number and options.

SUFFIX 1: Voltage  
SUFFIX 2: Accessories

# Pneumatic Spring Return Automated Ball Valve Package

**Series LB  
ASME Class 150  
Flanged PFA Lined Ball Valve**

Available in 316SST or WCB

Sizes 1/2"-8"

Flanged Ends - ASME Class 150

Full Port Design

Superior Packing System

PTFE Seats Standard

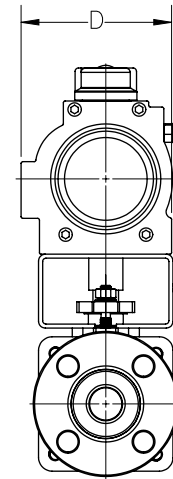
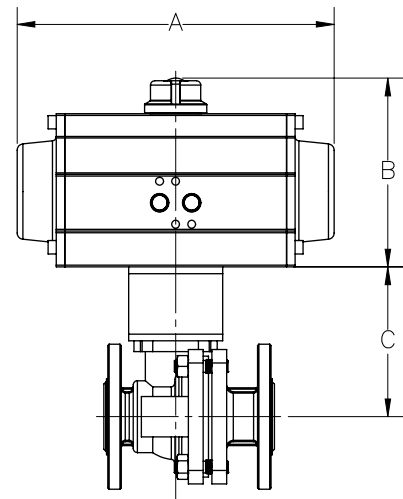
Spark Test Standard (20 kV)

### STANDARDS

|                         |               |
|-------------------------|---------------|
| Design & Manufactured   | API 608       |
| Face to Face Dimensions | ASME B16.10   |
| Flange End Connections  | ASME B16.5    |
| Pressure Testing        | API 598       |
| Material Certification  | EN 10204-3.1  |
| Quality Assurance       | ISO 9001:2015 |



**ASME Class 150 Flanged  
PFA Lined Ball Valve**



### Spring Return Assembly DIMENSIONS (IN)

| VALVE SIZE | A     | B     | C     | D    | VALVE Cv |
|------------|-------|-------|-------|------|----------|
| 1/2"       | 7.60  | 4.25  | 4.03  | 3.35 | 20       |
| 3/4"       | 7.60  | 4.25  | 4.03  | 3.35 | 20       |
| 1"         | 7.60  | 4.25  | 4.22  | 3.35 | 55       |
| 1-1/2"     | 9.29  | 5.09  | 5.38  | 4.18 | 210      |
| 2"         | 11.02 | 5.39  | 5.83  | 4.27 | 310      |
| 2-1/2"     | 11.02 | 5.39  | 5.83  | 4.27 | 210      |
| 3"         | 11.50 | 6.06  | 6.65  | 5.78 | 684      |
| 4"         | 13.39 | 6.93  | 8.31  | 5.59 | 1,546    |
| 6"         | 15.35 | 7.99  | 10.26 | 5.98 | 3,262    |
| 8"         | 23.54 | 11.26 | 11.96 | 8.90 | 4,565    |

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES LB PFA Lined Ball Valve**

### SIZED FOR 80 psi AIR SUPPLY

| SIZE   | MODEL             |
|--------|-------------------|
| 1/2"   | LB-F1-050/3RES-XX |
| 3/4"   | LB-F1-075/3RES-XX |
| 1"     | LB-F1-100/3RES-XX |
| 1-1/2" | LB-F1-150/3RFS-XX |
| 2"     | LB-F1-200/3RGS-XX |
| 2-1/2" | LB-F1-250/3RGS-XX |
| 3"     | LB-F1-300/3RHS-XX |
| 4"     | LB-F1-400/3RJS-XX |
| 6"     | LB-F1-600/3RKS-XX |
| 8"     | LB-F1-800/3RRS-XX |

### SIZED FOR 60 psi AIR SUPPLY

| SIZE   | MODEL             |
|--------|-------------------|
| 1/2"   | LB-F1-050/3RE4-XX |
| 3/4"   | LB-F1-075/3RE4-XX |
| 1"     | LB-F1-100/3RF4-XX |
| 1-1/2" | LB-F1-150/3RF4-XX |
| 2"     | LB-F1-200/3RG4-XX |
| 2-1/2" | LB-F1-250/3RH4-XX |
| 3"     | LB-F1-300/3RJ4-XX |
| 4"     | LB-F1-400/3RK4-XX |
| 6"     | LB-F1-600/3RL4-XX |
| 8"     | LB-F1-800/3RR4-XX |

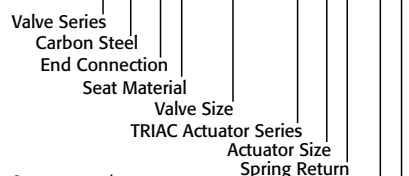
### OPTIONS

| SUFFIX 1 | Accessories/Options             | Model no.         |
|----------|---------------------------------|-------------------|
| X        | No Specials                     |                   |
| A        | TYPE 4 Solenoid 120VAC          | TVCS-X411-4N-A120 |
| B        | TYPE 7 Solenoid 120VAC          | TVC6-X411-7N-A120 |
| C        | Intrinsically Safe Solenoid     | TVIS-X411-4N-D24  |
| D        | TYPE 4 Solenoid 24VDC           | TVCS-X411-4N-D24  |
| F        | TYPE 7 Solenoid 24VDC           | TVC6-X411-7N-D24  |
| Q        | TYPE 4 SST Solenoid 120VAC      | TVSS-X411-4N-A120 |
| M        | TYPE 7 SST Solenoid 120VAC      | TVSS-X411-7N-A120 |
| L        | TYPE 4 SST Solenoid 24VDC       | TVSS-X411-4N-D24  |
| N        | TYPE 7 SST Solenoid 24VDC       | TVSS-X411-7N-D24  |
| P        | Pneumatic Positioner            | PPR-1200          |
| E        | Electro-Pneumatic Positioner    | EPR-1000          |
| SUFFIX 2 | Accessories                     | Model no.         |
| X        | No Specials                     |                   |
| A        | TYPE 4 Limit Switch             | APL-210N          |
| B        | TYPE 7 Limit Switch             | APL-510N          |
| C        | Intrinsically Safe Limit Switch | APL-218N          |
| Q        | TYPE 4 SST Limit Switch         | APL-910N          |
| M        | TYPE 7 SST Limit Switch         | APL-510S          |

Other options available - call for details  
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

SAMPLE PART #

**LBC-F1-150/3RFS-XX**



See automated part number matrix on back cover for complete part number and options.

SUFFIX 1: Voltage  
SUFFIX 2: Accessories

## Electric

### Automated Ball Valve Package

**Series LB**  
**ASME Class 150**  
**Flanged PFA Lined Ball Valve**

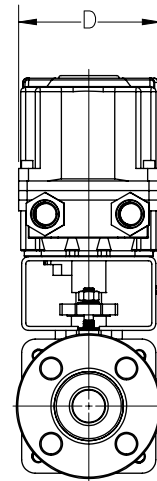
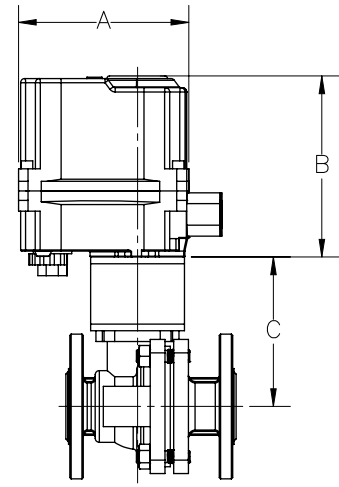
Available in 316SST or WCB  
 Sizes 1/2"-8"  
 Flanged Ends • ASME Class 150  
 Full Port Design  
 Superior Packing System  
 PTFE Seats Standard  
 Spark Test Standard (20 kV)

#### STANDARDS

|                         |               |
|-------------------------|---------------|
| Design & Manufactured   | API 608       |
| Face to Face Dimensions | ASME B16.10   |
| Flange End Connections  | ASME B16.5    |
| Pressure Testing        | API 598       |
| Material Certification  | EN 10204-3.1  |
| Quality Assurance       | ISO 9001:2015 |



**ASME Class 150 Flanged PFA Lined Ball Valve**



#### Electric Assembly DIMENSIONS (IN)

| VALVE SIZE | A     | B     | C     | D     | VALVE Cv |
|------------|-------|-------|-------|-------|----------|
| 1/2"       | 4.95  | 5.32  | 4.20  | 4.09  | 20       |
| 3/4"       | 4.95  | 5.32  | 4.20  | 4.09  | 20       |
| 1"         | 4.95  | 5.32  | 4.39  | 4.09  | 55       |
| 1-1/2"     | 4.95  | 5.32  | 5.38  | 4.09  | 210      |
| 2"         | 4.95  | 5.32  | 5.83  | 4.09  | 310      |
| 2-1/2"     | 4.95  | 5.32  | 5.83  | 4.09  | 210      |
| 3"         | 10.16 | 9.25  | 7.07  | 6.70  | 684      |
| 4"         | 13.31 | 10.55 | 8.31  | 9.02  | 1,546    |
| 6"         | 13.31 | 10.55 | 10.26 | 9.02  | 3,262    |
| 8"         | 14.49 | 11.97 | 11.96 | 10.20 | 4,565    |

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

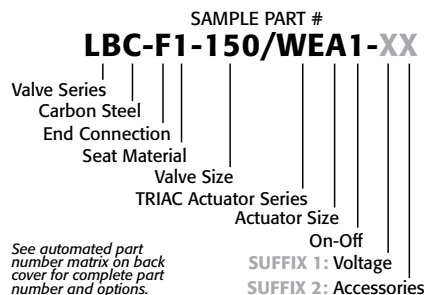
| ON-OFF |                   |
|--------|-------------------|
| SIZE   | MODEL             |
| 1/2"   | LB-F1-050/WEA1-XX |
| 3/4"   | LB-F1-075/WEA1-XX |
| 1"     | LB-F1-100/WEA1-XX |
| 1-1/2" | LB-F1-150/WEA1-XX |
| 2"     | LB-F1-200/WEA1-XX |
| 2-1/2" | LB-F1-250/WEA1-XX |
| 3"     | LB-F1-300/WEB1-XX |
| 4"     | LB-F1-400/WEC1-XX |
| 6"     | LB-F1-600/WED1-XX |
| 8"     | LB-F1-800/WEF1-XX |

| MODULATING |                   |
|------------|-------------------|
| SIZE       | MODEL             |
| 1/2"       | LB-F1-050/WEA2-XX |
| 3/4"       | LB-F1-075/WEA2-XX |
| 1"         | LB-F1-100/WEA2-XX |
| 1-1/2"     | LB-F1-150/WEA2-XX |
| 2"         | LB-F1-200/WEA2-XX |
| 2-1/2"     | LB-F1-250/WEA2-XX |
| 3"         | LB-F1-300/WEB2-XX |
| 4"         | LB-F1-400/WEC2-XX |
| 6"         | LB-F1-600/WED2-XX |
| 8"         | LB-F1-800/WEF2-XX |

| OPTIONS  |           |
|--|-----------|
| Suffix 1 Voltage / Accessory                                 | Model No. |
| X No Specials  |           |
| R 24VDC Electric Actuator                                    |           |
| S 220VAC Electric Actuator                                   |           |
| T Other Voltage Electric Actuator                            |           |
| W 12VDC Electric Actuator                                    |           |
| Y 24VAC Electric Actuator                                    |           |
| * No voltage specified on electric assemblies denotes 120VAC |           |
| Suffix 2 Accessories   |           |
| X No Specials  |           |
| 1 HS1 High Speed Electric                                    |           |
| 2 HS2 High Speed Electric                                    |           |

Other options available - call for details.

Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.



| 2  | Valve Series                            |
|----|---|
| LB | PFA Lined Split Body Flanged Ball Valve |

| 3     | Body/Ball/Stem Material        |
|-------|--------------------------------|
| Blank | Valve Series Standard (316SST) |
| C     | Carbon Steel Body              |

| 4  | End Connection    |
|----|-------------------|
| F1 | 150# Flanged Ends |

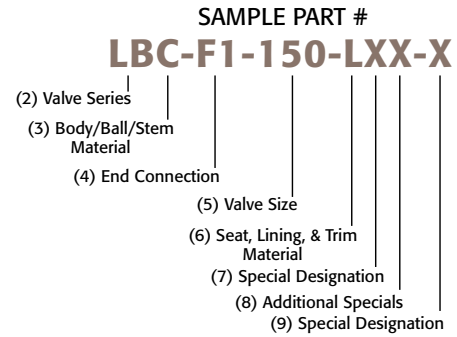
| 5    | Valve Size               |
|------|--------------------------|
| 0050 | 1/2"      0250    2-1/2" |
| 0075 | 3/4"      0300    3"     |
| 0100 | 1"        0400    4"     |
| 0150 | 1-1/2"    0600    6"     |
| 0200 | 2"        0800    8"     |

| 6 | Seat, Lining & Trim Material |
|---|------------------------------|
| L | PFA Lined w/ PTFE Seats      |

| 7 | Special Designation              |
|---|----------------------------------|
| X | No Specials/Series Standard      |
| G | Gear Operator                    |
| H | Gear Operator with Lockout Plate |
| 4 | 4" Lockable Stem Extension       |

| 8 | Additional Specials         |
|---|-----------------------------|
| X | No Specials/Series Standard |
| O | Oxygen Cleaned              |
| D | Degreased & Bagged          |

| 9     | Special Designation                   |
|-------|---------------------------------------|
| Blank | No Designation, Valve Series Standard |
| X     | Multiple Option Designation           |



# HOW TO ORDER: Automated Valves

| 2  | Valve Series                            |
|----|---|
| LB | PFA Lined Split Body Flanged Ball Valve |

| 3     | Body/Ball/Stem Material        |
|-------|--------------------------------|
| Blank | Valve Series Standard (316SST) |
| C     | Carbon Steel Body              |

| 4 | End Connection    |
|---|-------------------|
| F | 150# Flanged Ends |

| 5 | Seat, Lining & Trim Material |
|---|------------------------------|
| 1 | Valve Series Standard        |

| 6    | Valve Size               |
|------|--------------------------|
| 0050 | 1/2"      0250    2-1/2" |
| 0075 | 3/4"      0300    3"     |
| 0100 | 1"        0400    4"     |
| 0150 | 1-1/2"    0600    6"     |
| 0200 | 2"        0800    8"     |

| 7 (A) Pneumatic Actuator - 3R, 3N, 3P Series |
|--|
| 3RC    3R10      3RM    3R850                |
| 3RD    3R20      3RN    3R1000               |
| 3RE    3R40      3RP    3R1200               |
| 3RF    3R80      3RR    3R1750               |
| 3RG    3R130     3RS    3R2400               |
| 3RH    3R200     3RT    3R2500               |
| 3RJ    3R300     3RU    3R2700               |
| 3RK    3R500     3RV    3R3300               |
| 3RL    3R700     3RW    3R3500               |

3R=Standard, 3N=Electroless Nickel Plating, 3P=Teflon™ (PTFE) Coating

| 7 (A) Pneumatic Actuator - S2 Series |
|--------------------------------------|
| S2C    S2-052      S2G    S2-125     |
| S2D    S2-063      S2H    S2-140     |
| S2E    S2-083      S2J    S2-160     |
| S2F    S2-105      S2K    S2-210     |

| 7 (B) Pneumatic Action        |
|-------------------------------|
| D    Double Acting (DA)       |
| S    Spring CW (5 springs)*   |
| O    Spring CCW (5 springs)*  |
| 4    Spring CW (4 springs)**  |
| F    Spring CCW (4 springs)** |

\*2500 & 3500 80 psig spring  
\*\*2500 & 3500 60 psig spring

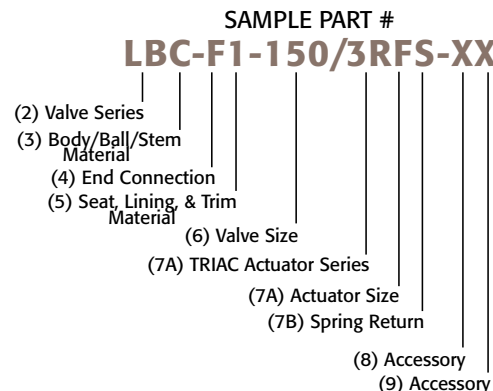
| 7    | Actuator - Electric (On-Off) |
|------|------------------------------|
| WEX1 | WE-350      WEG1    WE-5200  |
| WEA1 | WE-500      WEH1    WE-6900  |
| WEB1 | WE-690      WEJ1    WE-10500 |
| WEC1 | WE-1350     WEK1    WE-17500 |
| WED1 | WE-1700     WEL1    WE-25900 |
| WEE1 | WE-2640     WEM1    WE-53000 |
| WEF1 | WE-4400     WEN1    WE-80000 |

| 7    | Actuator - Electric (Modulating) |
|------|----------------------------------|
| WEA2 | WEM-500      WEH2    WEM-6900    |
| WEB2 | WEM-690      WEJ2    WEM-10500   |
| WEC2 | WEM-1350     WEK2    WEM-17500   |
| WED2 | WEM-1700     WEL2    WEM-25900   |
| WEE2 | WEM-2640     WEM2    WEM-53000   |
| WEF2 | WEM-4400     WEN2    WEM-80000   |
| WEG2 | WEM-5200                         |

| 8 | Accessories/Options             | Model no.         |
|---|---------------------------------|-------------------|
| X | No Specials                     |                   |
| A | TYPE 4 Solenoid 120VAC          | TVCS-X411-4N-A120 |
| B | TYPE 7 Solenoid 120VAC          | TVCS-X411-7N-A120 |
| C | Intrinsically Safe Solenoid     | TVIS-X411-4N-D24  |
| D | TYPE 4 Solenoid 24VDC           | TVCS-X411-4N-D24  |
| F | TYPE 7 Solenoid 24VDC           | TVCS-X411-7N-D24  |
| Q | TYPE 4 SST Solenoid 120VAC      | TVSS-X411-4N-A120 |
| M | TYPE 7 SST Solenoid 120VAC      | TVSS-X411-7N-A120 |
| L | TYPE 4 SST Solenoid 24VDC       | TVSS-X411-4N-D24  |
| N | TYPE 7 SST Solenoid 24VDC       | TVSS-X411-7N-D24  |
| P | Pneumatic Positioner            | PPR-1200          |
| E | Electro-Pneumatic Positioner    | EPR-1000          |
| R | 24VDC Electric Actuator         |                   |
| S | 220VAC Electric Actuator        |                   |
| T | Other Voltage Electric Actuator |                   |
| W | 12VDC Electric Actuator         |                   |
| Y | 24VAC Electric Actuator         |                   |

\* No voltage specified on electric assemblies denotes 120VAC

| 9 | Accessories                     | Model no. |
|---|---------------------------------|-----------|
| X | No Specials                     |           |
| A | TYPE 4 Limit Switch             | APL-210N  |
| B | TYPE 7 Limit Switch             | APL-510N  |
| C | Intrinsically Safe Limit Switch | APL-218N  |
| Q | TYPE 4 SST Limit Switch         | APL-910N  |
| M | TYPE 7 SST Limit Switch         | APL-510S  |
| Z | 180° Operation                  |           |
| 1 | HS1 High Speed Electric         |           |
| 2 | HS2 High Speed Electric         |           |



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