

# Apollo® 70-100 Series Bronze Ball Valve

Threaded, 600 psig WOG, Cold Non-Shock. 150 psig Saturated Steam.  
Vacuum Service to 29 inches Hg.  
Federal Specification: WW-V-35C, Type: II, Composition: BZ, Style: 3.

## FEATURES

- Chromium plated ball
- RPTFE seats and stuffing box ring
- Blow-out-proof stem design
- Adjustable packing gland

## STANDARD MATERIAL LIST

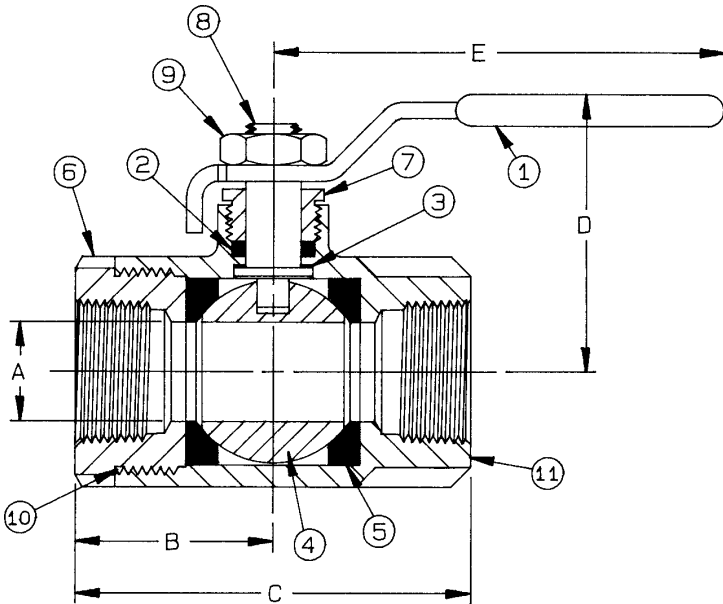
1. Lever and grip	Steel, zinc plated w/vinyl	7. Gland nut	B16
2. Stem packing	RPTFE	8. Stem	B16
3. Stem bearing	RPTFE	9. Lever nut	Steel, zinc plated
4. Ball	B16, chrome plated	10. Body seal (1-1/4" to 3")	PTFE
5. Seat (2)	RPTFE	11. Body	B584-C84400
6. Retainer	B16 (1/4" to 1") B584-C84400 (1-1/4" to 3")		

## VARIATIONS AVAILABLE:

- 70-120 Series (Adjustable Stop Lever)
- 70-140 Series (316 SS Ball & Stem)
- 70-150 Series (Balancing Stop)
- 70-190 Series (Locked Retainer)

## OPTIONS AVAILABLE:

(SUFFIX)	OPTION	SIZES
-02-	Static Grounded	1/4" to 3"
-03-	1-1/4" Stem Extension	1/4" to 3"
-04-	2-1/4" Stem Extension	1/4" to 3"
-05-	Plain Ball	1/4" to 3"
-07-	Tee Handle	1/4" to 2"
-08-	90° Reversed Stem	1/4" to 3"
-10-	SS Lever & Nut	1/4" to 3"
-14-	Vented Ball (see page J-2)	1/4" to 3"
-15-	Round Handle	1/4" to 2"
-16-	Vertical Chain Lever	3/4" to 2"
-17-	Rough Chrome Plating	1/4" to 3"
-21-	UHMWPE Seats (Non-PTFE)	1/4" to 3"
-24-	Graphite Stem Packing	1/4" to 3"
-27-	Latch Lock Lever	1/4" to 3"
-30-	CamLock Handle	1/4" to 2"
-32-	SS Tee Handle & Nut	1/4" to 2"
-35-	PTFE Trim	1/4" to 3"
-39-	SS Latch Lock Wheel Handle	1/4" to 2"
-40-	Cyl-Loc	1/4" to 2"
-41-	Auto Drain (See page J-8)	1/4" to 2"
-45-	Less Lever & Nut	1/4" to 3"
-46-	Latch Lock Lever - Lock Close Only	1/4" to 3"
-47-	SS Latch-Lock Oval Handle	1/4" to 1"
-48-	SS Oval Handle	1/4" to 2"
-49-	Assembled Dry	1/4" to 3"
-50-	2-1/4" Locking Stem Extension	1/4" to 3"
-56-	Multifill Seats	1/4" to 3"
-57-	Cleaned for Gaseous Oxygen	1/4" to 3"
-58-	Horizontal Chain Lever	3/4" to 2"
-60-	Static Grounded Ball & Stem	1/4" to 3"
-63-	Threaded x Solder	3/8" to 3"
-64-	250 Lb. Steam Trim	1/4" to 3"
-P01-	BSPP (Parallel) Thread Connection	1/4" to 3"
-T01-	BSPT (Tapered) Thread Connection	1/4" to 3"



BRONZE BALL VALVE

NUMBER	SIZE	A	B	C	D	E	Wt.
70-101-01	1/4"	.37	1.03	2.06	1.75	3.87	.60
70-102-01	3/8"	.37	1.03	2.06	1.75	3.87	.56
70-103-01	1/2"	.50	1.12	2.25	1.75	3.87	.63
70-104-01	3/4"	.68	1.50	3.00	2.12	4.87	1.39
70-105-01	1"	.87	1.68	3.37	2.25	4.87	1.72
70-106-01	1-1/4"	1.00	2.00	4.00	2.62	5.50	3.26
70-107-01	1-1/2"	1.25	2.18	4.37	3.06	8.00	4.61
70-108-01	2"	1.50	2.34	4.68	3.25	8.00	6.06
70-109-01A	2-1/2"	2.00	3.12	6.25	3.72	8.00	17.25
70-100-01	3"	2.50	3.37	6.75	4.12	8.00	18.60

**For Pressure/Temperature Ratings,  
Refer to Page N-10, Graph No. 4**

# Apollo® 82-100 Series

## Bronze 3-Piece Full Port Ball Valve

Threaded, 600 psig WOG, Cold Non-Shock. 150 psig Saturated Steam.

Vacuum Service to 29 inches Hg.

Federal Specification: WW-V-35C, Type: II, Composition: BZ, Style: 1.

### FEATURES

- Full port configuration
- RPTFE seats and seals
- In-line repairable
- Blow-out-proof stem design
- Adjustable packing gland

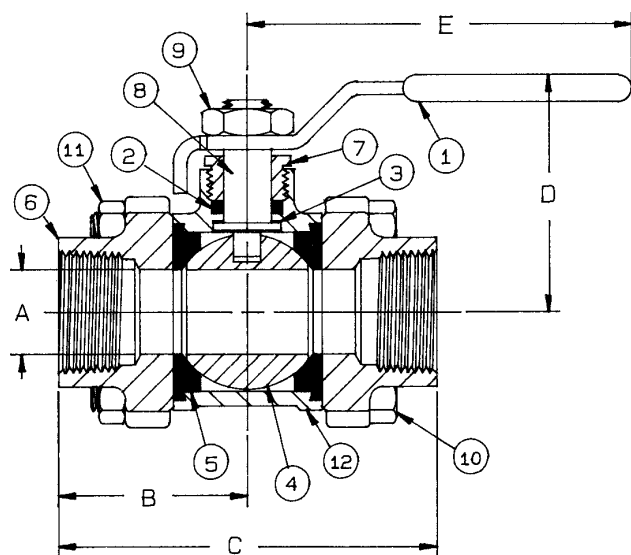
### STANDARD MATERIAL LIST

1. Lever and grip	Steel, zinc plated w/vinyl	10. Body bolt	Steel, zinc plated
2. Stem packing	RPTFE	11. Hex nut	Steel, zinc plated
3. Stem bearing	RPTFE	12. Body	B584-C84400
4. Ball	B16, chrome plated (except 3" & 4")		
5. Seat (2)	RPTFE		
6. End cap (2)	B16 (1/4" to 3/8")		
	B584-C84400 (1/2" to 4")		
7. Gland nut	B16		
8. Stem	B16 (except 3" & 4")		
9. Lever nut	Steel, zinc plated		

### VARIATIONS AVAILABLE:

82-140 Series (316 SS Ball & Stem)

82-150 Series (Original Balancing Stop)



BRONZE 3-PIECE FULL PORT BALL VALVE

NUMBER	SIZE	A	B	C	D	E	Wt.
82-101-01	1/4"	.43	1.28	2.56	1.81	3.87	1.02
82-102-01	3/8"	.50	1.28	2.56	1.81	3.87	1.04
82-103-01	1/2"	.62	1.40	2.81	1.93	4.87	1.55
82-104-01	3/4"	.81	1.71	3.43	2.18	4.87	2.27
82-105-01	1"	1.00	1.93	3.87	2.62	5.50	3.28
82-106-01	1-1/4"	1.25	2.37	4.75	2.87	5.50	5.62
82-107-01	1-1/2"	1.50	2.62	5.25	3.37	8.00	8.07
82-108-01	2"	2.00	3.01	6.03	3.68	8.00	14.42
82-109-01	2-1/2"	2.50	3.62	7.25	5.14	9.75	26.61
82-140-01	3"	3.00	4.00	8.00	6.77	18.00	42.24
82-14A-01	4"	4.00	5.50	11.00	8.26	18.00	88.40

### OPTIONS AVAILABLE:

(SUFFIX)	OPTION	SIZES
-02-	Static Grounded	1/4" to 4"
-03-	1-1/4" Stem Extension	1/4" to 2"
-04-	2-1/4" Stem Extension	1/4" to 2"
-05-	Plain Ball	1/4" to 4"
-07-	Tee Handle	1/4" to 2"
-08-	90° Reversed Stem	1/4" to 4"
-10-	SS Lever & Nut	1/4" to 4"
-14-	Vented Ball (see page J-2)	1/4" to 4"
-15-	Round Handle	1/4" to 2"
-16-	Vertical Chain Lever	1/2" to 2"
-18-	Plain Yellow Grip	1/4" to 2"
-19-	Lock Plate	1/4" to 4"
-20-	Slot Vented Ball	1/4" to 4"
-21-	UHMWPE Seats	1/4" to 4"
-23-	Tank Flange	2" ONLY
-24-	Graphite Stem Packing	1/4" to 4"
-27-	Latch Lock Lever	1/2" to 2"
-30-	CamLock Handle	1/4" to 1-1/4"
-32-	SS Tee Handle & Nut	1/4" to 2"
-35-	PTFE Trim	1/4" to 4"
-45-	Less Lever & Nut	1/4" to 4"
-46-	Latch Lock Lever - Lock Close Only	1/2" to 2"
-48-	SS Oval Handle	1/4" to 2"
-49-	Assembled Dry	1/4" to 4"
-50-	2-1/4" Locking Stem Extension	1/4" to 2"
-57-	Cleaned for Gaseous Oxygen	1/4" to 4"
-58-	Horizontal Chain Lever	1/2" to 2"
-59-	SS Body Trim	1/4" to 4"
-60-	Static Grounded Ball & Stem	1/4" to 4"
-63-	Threaded x Solder	3/8" to 4"
-P01-	BSPP (Parallel) Thread Connection	1/4" to 4"
-T01-	BSPT (Tapered) Thread Connection	1/4" to 4"

**For Pressure/Temperature Ratings,  
Refer to Page N-10, Graph No. 4**

# Apollo® 70-200 Series

## Solder End Bronze Ball Valve

Solder End, 600 psig WOG, Cold Non-Shock. 150 psig Saturated Steam.  
 Vacuum Service to 29 inches Hg.  
 Federal Specification: WW-V-35C, Type: II, Composition: BZ, Style: 3.

### FEATURES

- Chromium plated ball
- RPTFE seats and stuffing box ring
- Blow-out-proof stem design
- Adjustable packing gland

### STANDARD MATERIAL LIST

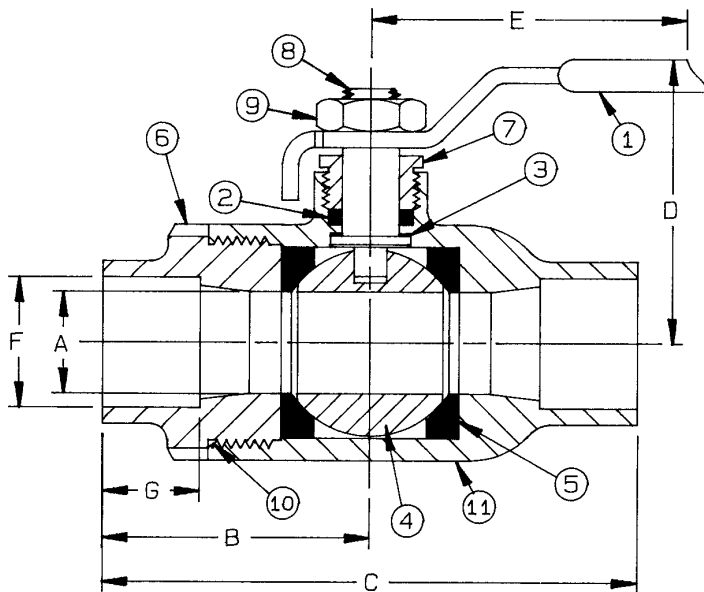
1. Lever and grip	Steel, zinc plated w/vinyl	7. Gland nut	B16
2. Stem packing	RPTFE	8. Stem	B16
3. Stem bearing	RPTFE	9. Lever nut	Steel, zinc plated
4. Ball	B16, chrome plated	10. Body seal	PTFE
5. Seat (2)	RPTFE	(1-1/4" to 3")	
6. Retainer	B16 (3/8" to 1")	11. Body	B584-C84400
	B584-C84400 (1-1/4" to 3")		

### VARIATIONS AVAILABLE:

- 70-220 Series (Adjustable Stop Lever)
- 70-240 Series (316 SS Ball & Stem)
- 70-250 Series (Balancing Stop)

### OPTIONS AVAILABLE:

(SUFFIX)	OPTION	SIZES
-02-	Static Grounded	3/8" to 3"
-03-	1-1/4" Stem Extension	3/8" to 3"
-04-	2-1/4" Stem Extension	3/8" to 3"
-05-	Plain Ball	3/8" to 3"
-07-	Tee Handle	3/8" to 2"
-08-	90° Reversed Stem	3/8" to 3"
-10-	SS Lever & Nut	3/8" to 3"
-14-	Vented Ball (see page J-2)	3/8" to 3"
-15-	Round Handle	3/8" to 2"
-16-	Vertical Chain Lever	3/4" to 2"
-24-	Graphite Stem Packing	3/8" to 3"
-27-	Latch Lock Lever	3/8" to 3"
-32-	SS Tee Handle & Nut	3/8" to 2"
-35-	PTFE Trim	3/8" to 3"
-39-	SS Latch Lock Wheel Handle	3/8" to 2"
-45-	Less Lever & Nut	3/8" to 3"
-46-	Latch Lock Lever - Lock Close Only	3/8" to 3"
-47-	SS Latch-Lock Oval Handle	3/8" to 1"
-48-	SS Oval Handle	3/8" to 2"
-49-	Assembled Dry	3/8" to 3"
-50-	2-1/4" Locking Stem Extension	3/8" to 3"
-56-	Multifill Seats	3/8" to 3"
-57-	Cleaned for Gaseous Oxygen	3/8" to 3"
-58-	Horizontal Chain Lever	3/4" to 2"
-60-	Static Grounded Ball & Stem	3/8" to 3"
-63-	Threaded x Solder	3/8" to 3"



BRONZE BALL VALVE

NUMBER	SIZE	A	B	C	D	E	F	G	Wt.
70-202-01	3/8"	.37	1.28	2.56	1.75	3.87	.505	.37	.63
70-203-01	1/2"	.50	1.43	2.87	1.75	3.87	.630	.50	.71
70-204-01	3/4"	.68	1.93	3.87	2.12	4.87	.880	.75	1.44
70-205-01	1"	.87	2.25	4.50	2.25	4.87	1.130	.90	1.91
70-206-01	1-1/4"	1.00	2.31	4.62	2.62	5.50	1.380	.96	2.95
70-207-01	1-1/2"	1.25	2.62	5.25	3.06	8.00	1.630	1.09	3.99
70-208-01	2"	1.50	3.18	6.37	3.25	8.00	2.130	1.34	5.71
70-209-01A	2-1/2"	2.00	3.74	7.51	3.72	8.00	2.630	1.48	15.53
70-200-01	3"	2.50	4.12	8.25	4.12	8.00	3.130	1.67	16.74

The 70-200 is designed to be soft soldered into lines without disassembly. This allows a tested valve to be installed without disturbing the seats and seals in any way. Soldering temperature not to exceed 500°F.

**For Pressure/Temperature Ratings,  
 Refer to Page N-10, Graph No. 4**

# Apollo® 82-200 Series

## Bronze 3-Piece Full Port Solder End Ball Valve

Solder End, 600 psig WOG, Cold Non-Shock. 150 psig Saturated Steam.  
 Vacuum Service to 29 inches Hg.  
 Federal Specification: WW-V-35B, Type: II, Composition: BZ, Style: 1.  
 Designed For Soft Solder or Brazed Installation.

### FEATURES

- Full port configuration
- RPTFE seats and seals
- In-line repairable
- Blow-out-proof stem design
- Adjustable packing gland

### STANDARD MATERIAL LIST

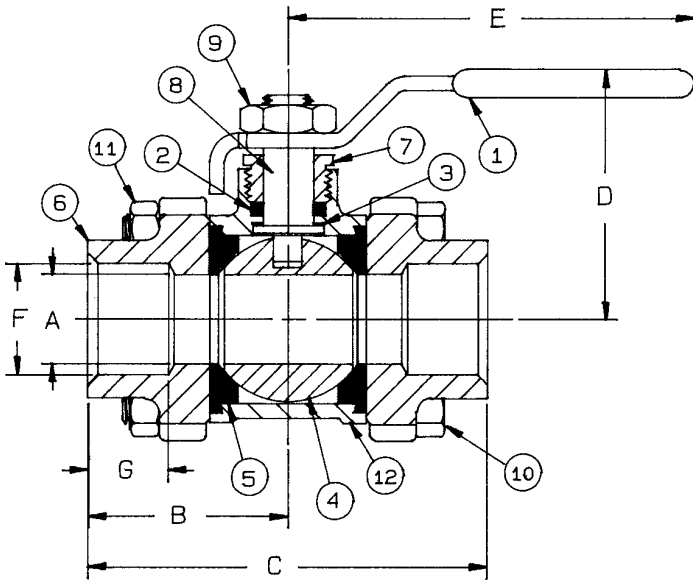
1. Lever and grip	Steel, zinc plated w/vinyl	10. Body bolt	Steel, zinc plated
2. Stem packing	RPTFE	11. Hex nut	Steel, zinc plated
3. Stem bearing	RPTFE	12. Body	B584-C84400
4. Ball	B16, chrome plated (except 3" & 4")		
5. Seat (2)	RPTFE		
6. End cap (2)	B16 (3/8")		
	B584-C84400 (1/2" to 4")		
7. Gland nut	B16		
8. Stem	B16 (except 3" & 4")		
9. Lever nut	Steel, zinc plated		

### VARIATIONS AVAILABLE:

82-240 Series (316 SS Ball & Stem)

### OPTIONS AVAILABLE:

(SUFFIX)	OPTION	SIZES
-02-	Static Grounded	3/8" to 4"
-03-	1-1/4" Stem Extension	3/8" to 2"
-04-	2-1/4" Stem Extension	3/8" to 2"
-05-	Plain Ball	3/8" to 4"
-07-	Tee Handle	3/8" to 2"
-08-	90° Reversed Stem	3/8" to 4"
-10-	SS Lever & Nut	3/8" to 4"
-14-	Vented Ball (see page J-2)	3/8" to 4"
-15-	Round Handle	3/8" to 2"
-16-	Vertical Chain Lever	1/2" to 2"
-18-	Plain Yellow Grip	3/8" to 2"
-19-	Lock Plate	3/8" to 4"
-20-	Slot Vented Ball	3/8" to 4"
-21-	UHMWPE Seats	3/8" to 4"
-23-	Tank Flange	2" ONLY
-24-	Graphite Stem Packing	3/8" to 4"
-27-	Latch Lock Lever	1/2" to 2"
-30-	CamLock Handle	3/8" to 1-1/4"
-32-	SS Tee Handle & Nut	3/8" to 2"
-35-	PTFE Trim	3/8" to 4"
-45-	Less Lever & Nut	3/8" to 4"
-46-	Latch Lock Lever - Lock Close Only	1/2" to 2"
-48-	SS Oval Handle	1/4" to 2"
-49-	Assembled Dry	3/8" to 4"
-50-	2-1/4" Locking Stem Extension	3/8" to 2"
-57-	Cleaned for Gaseous Oxygen	3/8" to 4"
-58-	Horizontal Chain Lever	1/2" to 2"
-59-	SS Body Trim	3/8" to 4"
-60-	Static Grounded Ball & Stem	3/8" to 4"



BRONZE 3-PIECE FULL PORT BALL VALVE

NUMBER	SIZE	A	B	C	D	E	F	G	Wt.
82-202-01	3/8"	.50	1.28	2.56	1.81	3.87	.505	.37	.99
82-203-01	1/2"	.62	1.40	2.81	1.93	4.87	.630	.50	1.46
82-204-01	3/4"	.81	1.71	3.43	2.18	4.87	.880	.75	2.07
82-205-01	1"	1.00	1.93	3.87	2.62	5.50	1.130	.90	3.03
82-206-01	1-1/4"	1.25	2.37	4.75	2.87	5.50	1.380	.96	5.02
82-207-01	1-1/2"	1.50	2.60	5.25	3.37	8.00	1.630	1.09	7.91
82-208-01	2"	2.00	3.01	6.03	3.68	8.00	2.130	1.34	13.50
82-209-01	2-1/2"	2.50	3.62	7.25	5.14	9.38	2.630	1.47	26.61
82-240-01	3"	3.00	4.00	8.00	6.77	18.00	3.130	1.66	42.24
82-24A-01	4"	4.00	5.50	11.00	8.26	18.00	4.130	2.16	88.40

**For Pressure/Temperature Ratings,  
 Refer to Page N-10, Graph No. 4**