

# Apollo 87A-800 Series

## Alloy 20 ANSI Class 300 Flanged Standard Port Ball Valve - 1-1/2" through 2"

### Standards Compliance

ASME B16.5 - "Pipe Flanges and Flanged Fittings"  
 ASME B16.10 - "Face to Face Dimensions of Valves"  
 ASME B16.34 - "Valves - Flanged, Threaded, and Welding End"  
 API 607 - "Fire Test - Soft Seated Quarter Turn Valves" (-24 option)  
 API 608 - "Ball Valves - Flanged, Threaded, and Welding End"  
 MSS SP-25 - "Standard Marking System for Valves"  
 MSS SP-61 - "Pressure Testing of Steel Valves"  
 MSS SP-72 - "Ball Valves with Flanged or Butt welding Ends"  
 ASME B31.1, B31.3, & B31.8 - Pressure Piping Standards

### Standard Features

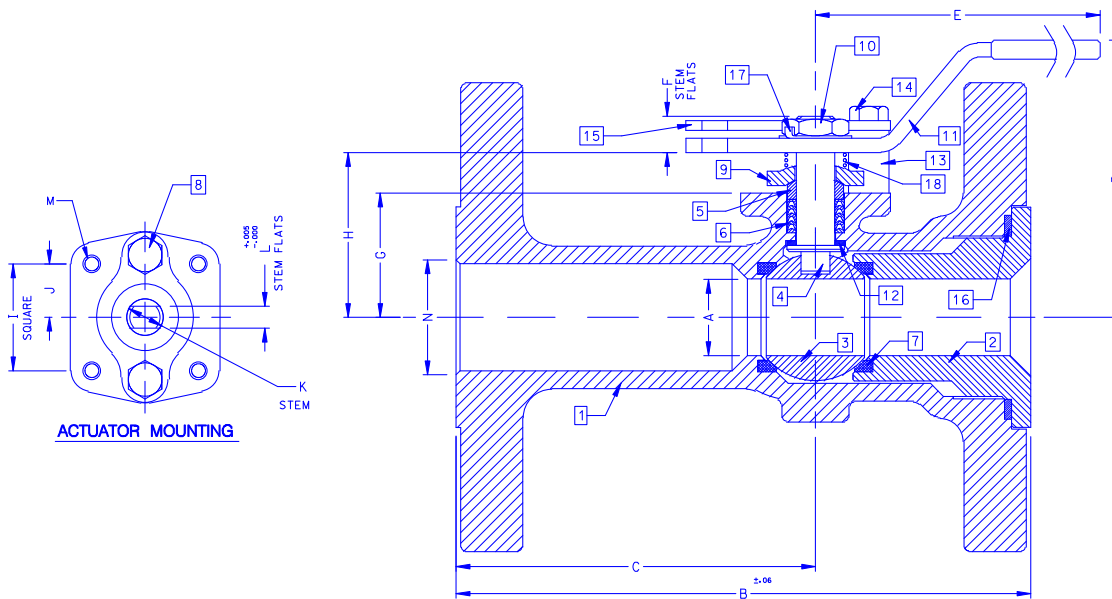
Two Position Locking Device  
 Antistatic Grounded Stem  
 CHV Style Adjustable Stem Seals  
 Blow-out Proof Stem Design  
 Cast Boss for Bleed / Drain Port  
 Four Point ISO 5211 Mounting Pad Bolt Circle  
 Slot Vented Ball for Thermal Expansion  
 Vacuum Service to 29 inches Hg

### Materials of Construction

Description	Material
1. Body	ASTM A351 CN7M
2. Retainer	ASTM B473 (UNS N08020) or CN7M
3. Ball	ASTM B473 (UNS N08020) or CN7M
4. Stem	ASTM B473 (UNS N08020)
5. Packing Gland	ASTM A276 Type 316
6. Stem Seals	PTFE
7. Seats	RPTFE
8. Gland Screws	ASTM A193 B8 Class 1
9. Gland Plate	302 or 304 Stainless Steel
10. Stem Nut	316 Stainless Steel
11. Lever	302 or 304 SS with Vinyl Grip
12. Stem Bearing	RPTFE
13. Stop	ASTM A276 Type 316
14. Stop Screw	18-8 Stainless Steel
15. Lock Plate	302 or 304 Stainless Steel
16. Body Seal	RPTFE
17. Lockwasher	302 or 304 Stainless Steel
18. Grounding Spring	Stainless Steel

### Options Available

Suffix	Option
-01	Standard (Locking Kit and Grounded Stem)
-14	Side Vented Ball (See Page J2)
-15	Wheel Handle
-21	UHMWPE Seats
-24	Fire Safe (Graphite Packing and Seal)
-35	PTFE Seats and Seals
-38	PEEK Seats and Graphite Packing
-49	Assembled Dry
-57	Oxygen Cleaned (Stainless Steel Valves Only)
-60	Grounded Ball and Stem
-65	MPTEF Seats and Graphite Packing
-69	Drilled and Tapped Purge Port with Plug
-70	4" Extended Bonnet



Number	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N
87A-807-01	1-1/2"	1.00	7.50	4.69	3.62	6.03	0.47	1.62	2.15	1.392	0.696	0.500	0.287	1/4-20	1.50
87A-808-01	2"	1.50	8.50	5.19	4.62	6.65	0.72	2.41	3.09	1.949	0.974	0.625	0.412	5/16-18	2.00

# Apollo 87A-800 Series

## Alloy 20 ANSI Class 300 Flanged Standard Port Ball Valve - 2-1/2" through 3"

### Standards Compliance

ASME B16.5 - "Pipe Flanges and Flanged Fittings"  
 ASME B16.10 - "Face to Face Dimensions of Valves"  
 ASME B16.34 - "Valves - Flanged, Threaded, and Welding End"  
 API 607 - "Fire Test - Soft Seated Quarter Turn Valves" (-24 option)  
 API 608 - "Ball Valves - Flanged, Threaded, and Welding End"  
 MSS SP-25 - "Standard Marking System for Valves"  
 MSS SP-61 - "Pressure Testing of Steel Valves"  
 MSS SP-72 - "Ball Valves with Flanged or Butt welding Ends"  
 ASME B31.1, B31.3, & B31.8 - Pressure Piping Standards

### Standard Features

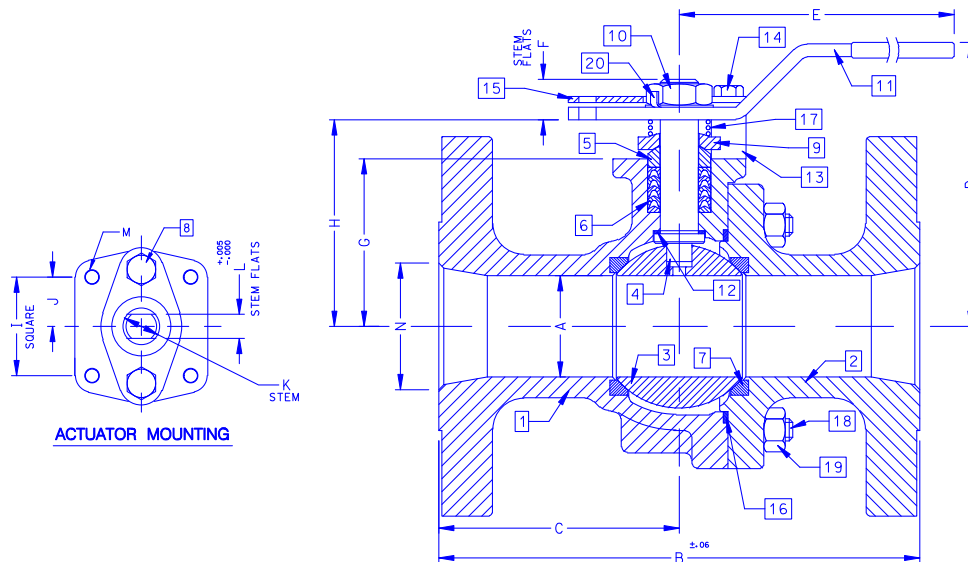
Two Position Locking Device  
 Antistatic Grounded Stem  
 CHV Style Adjustable Stem Seals  
 Blow-out Proof Stem Design  
 Cast Bosses for Bleed / Drain Ports  
 Four Point ISO 5211 Mounting Pad Bolt Circle  
 Slot Vented Ball for Thermal Expansion  
 Vacuum Service to 29 inches Hg

### Materials of Construction

Description	Material
1. Body	ASTM A351 CN7M
2. Retainer	ASTM A351 CN7M
3. Ball	ASTM B473 (UNS N08020) or CN7M
4. Stem	ASTM B473 (UNS N08020)
5. Packing Gland	ASTM A276 Type 316
6. Stem Seals	PTFE
7. Seats	RPTFE
8. Gland Screws	ASTM A193 B8 Class 1
9. Gland Plate	316 Stainless Steel
10. Stem Nut	18-8 Stainless Steel
11. Lever	316 Stainless Steel with Vinyl Grip
12. Stem Bearing	RPTFE
13. Stop	ASTM A276 Type 316
14. Stop Screw	316 Stainless Steel
15. Lock Plate	302 or 304 Stainless Steel
16. Body Seal	RPTFE
17. Grounding Spring	Stainless Steel
18. Body Joint Stud	ASTM A193 Grade B8M
19. Body Joint Nut	ASTM A194 Grade 8
20. Lockwasher	302 or 304 Stainless Steel

### Options Available

Suffix	Option
-01	Standard (Locking Kit and Grounded Stem)
-14	Side Vented Ball (See Page J2)
-21	UHMWPE Seats
-24	Fire Safe (Graphite Packing and Seal)
-35	PTFE Seats and Seals
-38	PEEK Seats and Graphite Packing
-49	Assembled Dry
-57	Oxygen Cleaned (Stainless Steel Valves Only)
-60	Grounded Ball and Stem
-65	MPTFE Seats and Graphite Packing
-69	Drilled and Tapped Purge Ports with Plugs
-70	4" Extended Bonnet
-MG	Gear Operator with Standard Handwheel
-MH	Gear Operator with Standard Handwheel & Locking Device
-MJ	Gear Operator with Oversize Handwheel
-MK	Gear Operator with Oversize Handwheel & Locking Device



Number	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N
87A-809-01	2-1/2"	2.00	9.50	4.75	5.61	8.40	0.80	3.31	4.08	1.949	0.974	0.750	0.477	5/16-18	2.50
87A-800-01	3"	2.50	11.12	5.56	6.23	8.40	0.80	3.93	4.70	1.949	0.974	0.750	0.477	5/16-18	3.00

# Apollo 87A-800 Series

## Alloy 20 ANSI Class 300 Flanged Standard Port Ball Valve - 4" through 8"

### Standards Compliance

ASME B16.5 - "Pipe Flanges and Flanged Fittings"  
 ASME B16.10 - "Face to Face Dimensions of Valves"  
 ASME B16.34 - "Valves - Flanged, Threaded, and Welding End"  
 API 607 - "Fire Test - Soft Seated Quarter Turn Valves" (-24 option)  
 API 608 - "Ball Valves - Flanged, Threaded, and Welding End"  
 MSS SP-25 - "Standard Marking System for Valves"  
 MSS SP-61 - "Pressure Testing of Steel Valves"  
 MSS SP-72 - "Ball Valves with Flanged or Butt welding Ends"  
 ASME B31.1, B31.3, & B31.8 - Pressure Piping Standards

### Standard Features

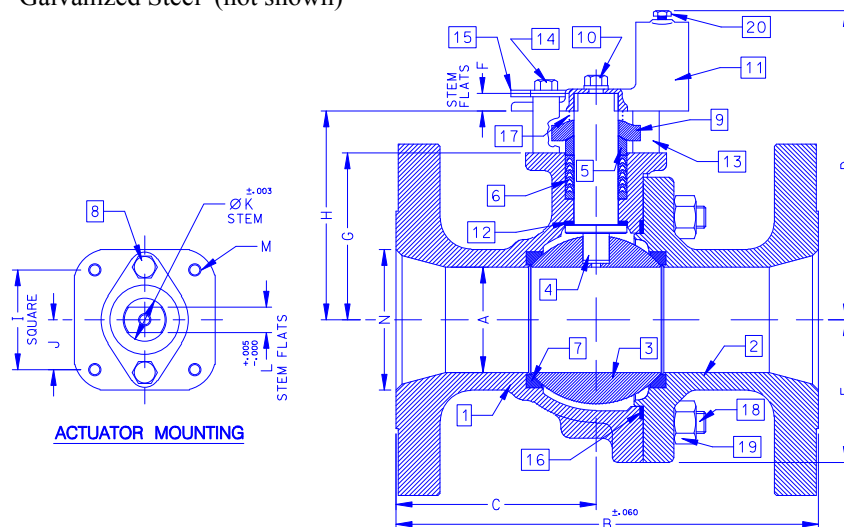
Two Position Locking Device  
 Antistatic Grounded Stem  
 CHV Style Adjustable Stem Seals  
 Blow-out Proof Stem Design  
 Cast Bosses for Bleed / Drain Ports  
 Four Point ISO 5211 Mounting Pad Bolt Circle  
 Slot Vented Ball for Thermal Expansion  
 Vacuum Service to 29 inches Hg

### Materials of Construction

Description	Material
1. Body	ASTM A351 CN7M
2. Retainer	ASTM A351 CN7M
3. Ball	ASTM B473 (UNS N08020) or CN7M
4. Stem	ASTM B473 (UNS N08020)
5. Packing Gland	ASTM A276 Type 316
6. Stem Seals	PTFE
7. Seats	RPTFE
8. Gland Screws	ASTM A193 B8 Class 1
9. Gland Plate	316 Stainless Steel
10. Adapter Screw	18-8 Stainless Steel
11. Handle Adapter	316 Stainless Steel
12. Stem Bearing	RPTFE
13. Stop	ASTM A276 Type 316
14. Stop Screw	316 Stainless Steel
15. Lock Plate	302 or 304 Stainless Steel
16. Body Seal	RPTFE
17. Grounding Spring	Stainless Steel
18. Body Joint Stud	ASTM A193 Grade B8M
19. Body Joint Nut	ASTM A194 Grade 8
20. Adapter Screw	18-8 Stainless Steel
21. Pipe Handle	Galvanized Steel (not shown)

### Options Available

Suffix	Option
-01	Standard (Locking Kit and Grounded Stem)
-14	Side Vented Ball (See Page J2)
-21	UHMWPE Seats
-24	Fire Safe (Graphite Packing and Seal)
-35	PTFE Seats and Seals
-49	Assembled Dry
-57	Oxygen Cleaned (Stainless Steel Valves Only)
-60	Grounded Ball and Stem
-65	MPTFE Seats and Graphite Packing
-70	4" Extended Bonnet (4" & 6" Valves Only)
-MG	Gear Operator with Standard Handwheel
-MH	Gear Operator with Standard Handwheel & Locking Device
-MJ	Gear Operator with Oversize Handwheel
-MK	Gear Operator with Oversize Handwheel & Locking Device



Number	Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N
87A-80A-01	4"	3.00	12.00	5.68	8.80	3.88	0.50	4.75	5.95	2.840	1.420	1.250	0.725	3/8-16	4.00
87A-80C-01	6"	4.00	15.88	7.38	9.99	5.13	0.50	5.94	7.13	2.840	1.420	1.250	0.725	3/8-16	6.00
87A-80E-01	8"	6.00	19.75	9.00	13.73	7.00	1.00	7.75	9.48	4.596	2.298	2.000	1.375	3/4-10	8.00