

# AVCO

*Alloy Valves and Control*

## BALL VALVES 9100 SERIES



### Size

1/2" - 12" (Full Port)  
Fire Safe as Standard

### End Connections

150# Flanged  
300# Flanged

### Valve Materials

316 Stainless Steel  
Carbon Steel  
Alloy 20  
Hastelloy C

### Ball and Stem Materials

316 Stainless Steel  
Alloy 20  
Hastelloy C

### Seat Materials

15% Glass Filled Teflon  
25% Carbon Filled Teflon  
Teflon  
PEEK

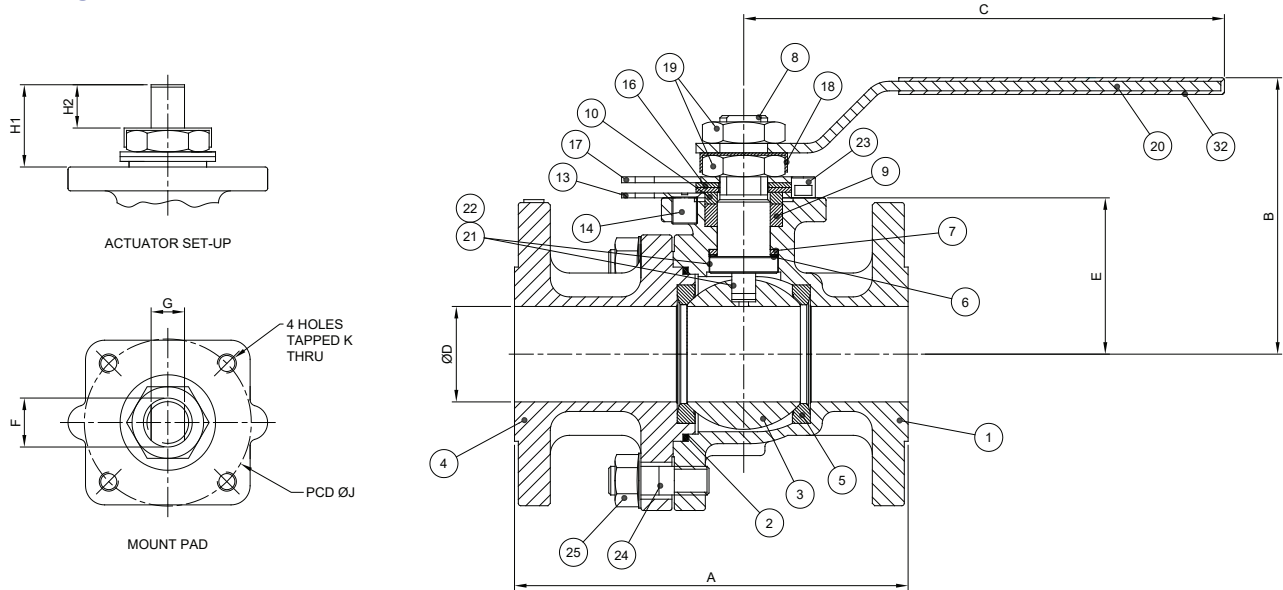
### Service Applications

Chemical  
Food Processing  
Oxygen  
Steam  
Thermal Fluids  
Vacuum  
Water/Oil/Gas

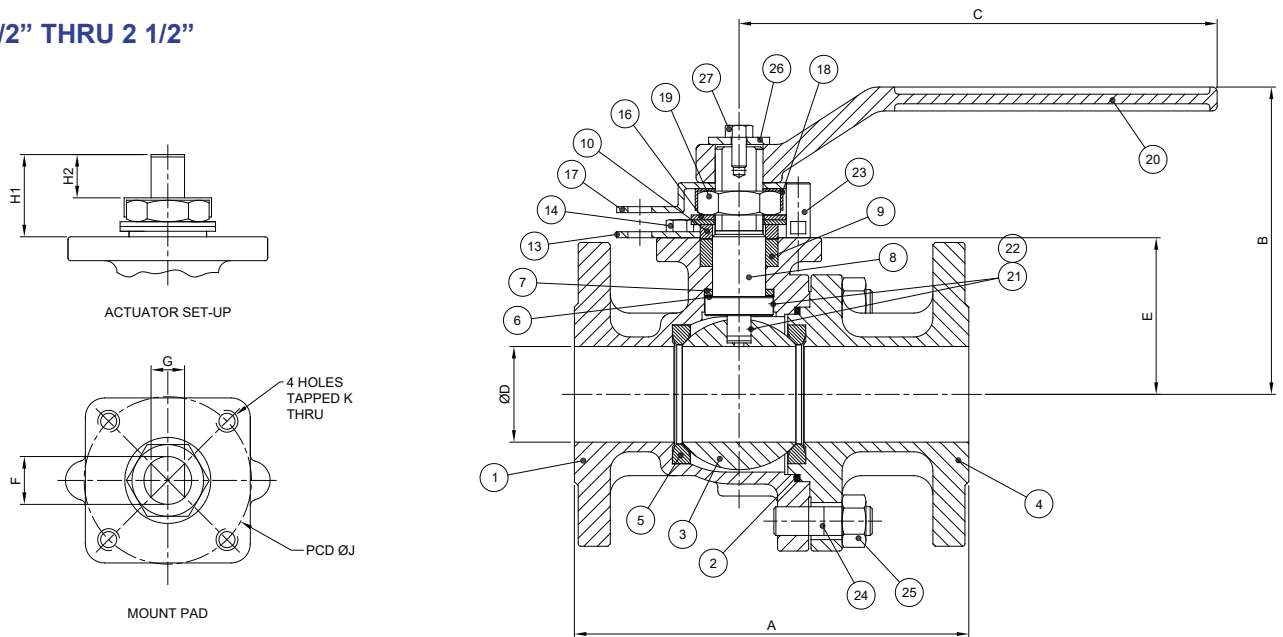
### Applicable Standards

ASME B16.34  
ASME B16.10  
ASME B16.5  
API 598  
API 6D  
API 607

### 1/2" THRU 1 1/4"

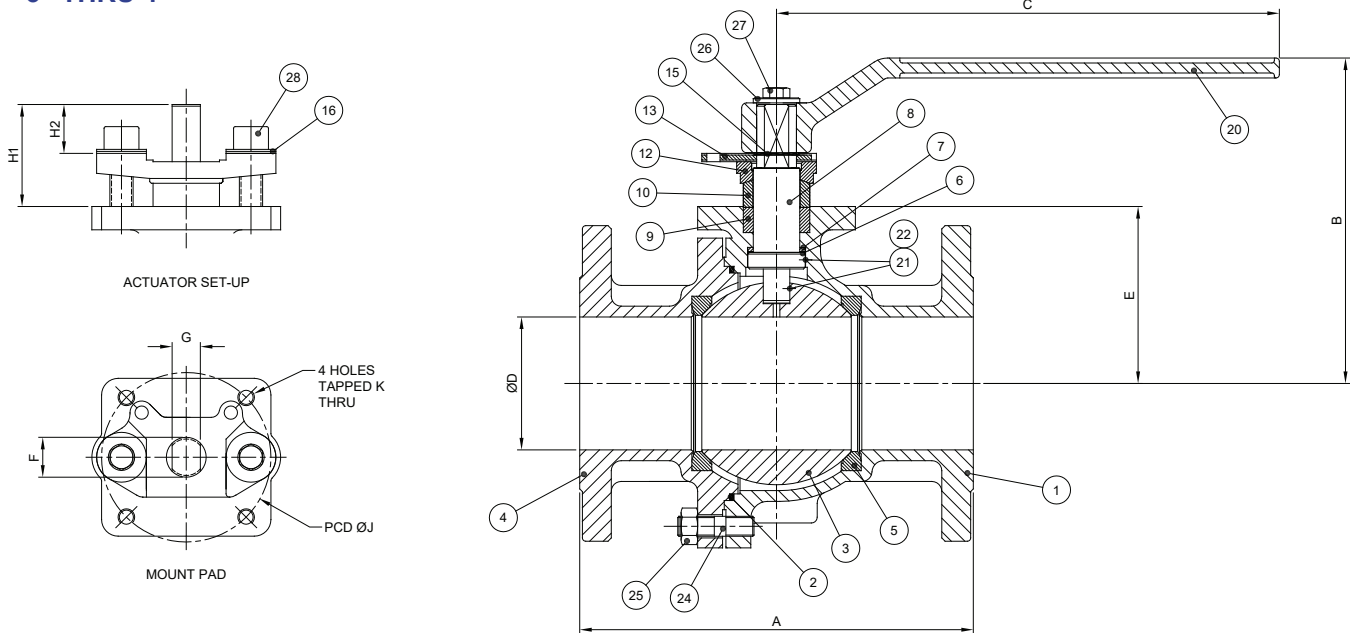


### 1 1/2" THRU 2 1/2"

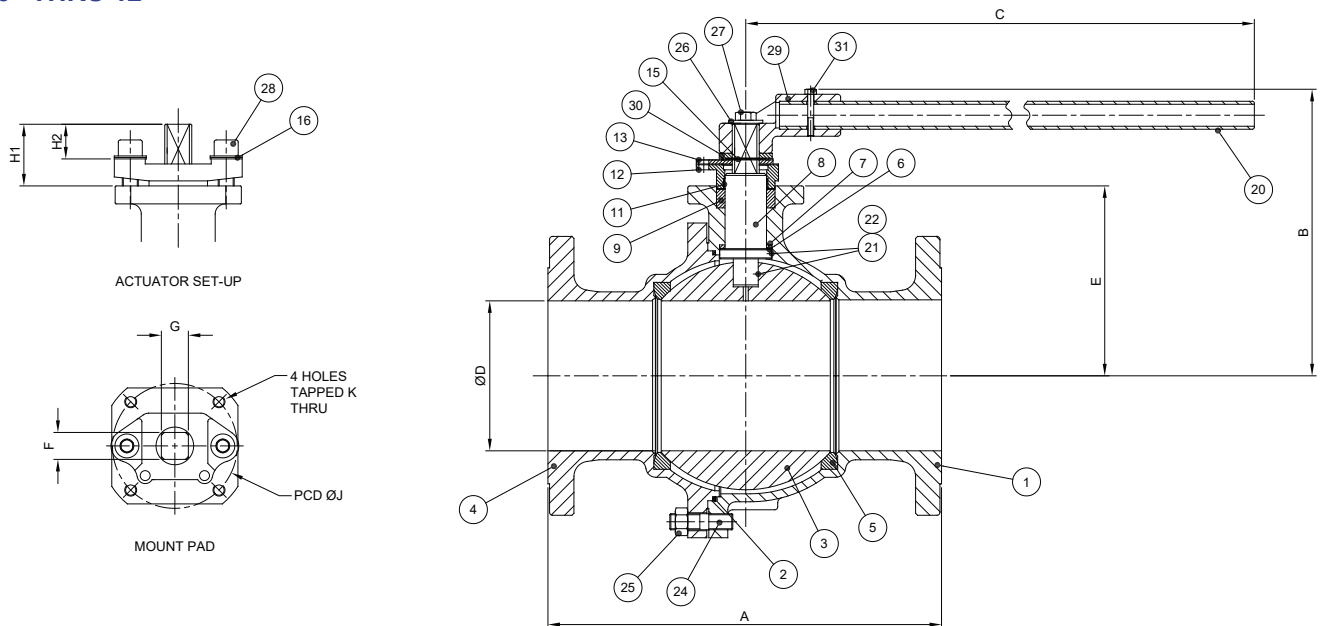


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### 3" THRU 4"

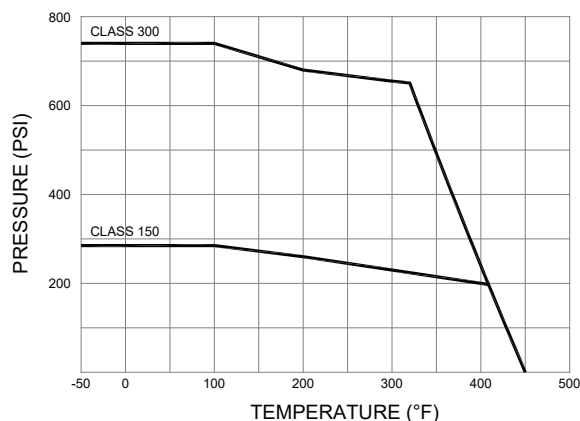


### 6" THRU 12"



SIZE	ANS Class	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G	H1 (in.)	H2 (in.)	J (in.)	K (in.)	ISO 5211	Weight (lbs)	TORQUE (in-lbs)	CV
1/2"	150#	4.25	3.57	5.65	0.59	1.67	M10	0.297	0.69	0.39	1.654	M5	F04	4.6	84	23
	300#	5.50	3.67	5.65	0.59	1.75	M10	0.297	0.69	0.37	1.654	M5	F04	7.1	84	23
3/4"	150#	4.61	3.70	5.65	0.79	1.79	M10	0.297	0.73	0.39	1.654	M5	F04	5.3	96	53
	300#	5.98	3.76	5.65	0.79	1.85	M10	0.297	0.69	0.37	1.654	M5	F04	9.5	96	53
1"	150#	5.00	4.07	5.65	0.98	2.05	M14	0.342	1.16	0.72	1.969	M6	F05	5.7	120	94
	300#	6.50	4.23	5.65	0.98	2.15	M14	0.342	1.06	0.63	1.969	M6	F05	10.6	120	94
1 1/4"	150#	5.51	4.41	5.65	1.26	2.34	M14	0.342	1.06	0.63	1.969	M6	F05	11.5	178	118
	300#	7.00	4.41	5.65	1.26	2.34	M14	0.342	1.06	0.63	1.969	M6	F05	13.9	178	118
1 1/2"	150#	6.50	5.04	7.87	1.57	2.58	M20	0.551	1.46	0.69	2.756	M8	F07	15.0	216	213
	300#	7.48	5.04	7.87	1.57	2.58	M20	0.551	1.46	0.69	2.756	M8	F07	15.9	216	213
2"	150#	7.01	5.35	7.87	1.97	2.87	M20	0.551	1.50	0.69	2.756	M8	F07	19.8	300	378
	300#	8.50	5.35	7.87	1.97	2.87	M20	0.551	1.50	0.69	2.756	M8	F07	27.6	300	378
2 1/2"	150#	7.48	6.22	11.81	2.56	3.74	M20	0.551	1.50	0.69	2.756	M8	F07	32.0	531	660
	300#	9.49	6.22	11.81	2.56	3.74	M20	0.551	1.50	0.69	2.756	M8	F07	40.4	531	660
3"	150#	7.99	7.72	13.78	3.15	4.19	0.984	0.669	2.42	1.14	4.016	M10	F10	43.0	781	951
	300#	11.14	7.95	13.78	3.15	4.45	0.984	0.669	2.42	1.14	4.016	M10	F10	70.6	781	951
4"	150#	9.02	8.35	15.75	3.94	4.80	0.984	0.669	2.42	1.14	4.016	M10	F10	72.8	1444	1691
	300#	12.01	8.58	15.75	3.94	5.06	0.984	0.669	2.42	1.14	4.016	M10	F10	101	1444	1691
6"	150#	15.51	11.30	32.87	5.91	7.48	1.063	1.063	2.43	1.34	4.921	M12	F12	137	3356	3806
	300#	15.87	11.30	32.87	5.91	7.48	1.063	1.063	2.44	1.34	4.921	M12	F12	194	3356	3806
8"	150#	17.99	14.88	41.14	7.87	9.90	1.260	1.260	3.11	1.59	4.921	M12	F12	243	12744	7812
	300#	19.76	14.88	41.14	7.87	9.90	1.260	1.260	3.11	1.59	4.921	M12	F12	359	12744	7812
10"	150#	20.98	16.26	41.34	9.84	10.87	1.417	1.417	3.37	1.83	5.512	M16	F14	366	15930	13371
	300#	22.36	16.26	41.34	9.84	10.87	1.417	1.417	3.37	1.83	5.512	M16	F14	525	15930	13371
12"	150#	24.02	20.53	59.06	11.81	13.33	1.811	1.811	4.98	2.66	6.496	M20	F16	523	21240	19255
	300#	25.51	20.53	59.06	11.81	13.33	1.811	1.811	4.98	2.66	6.496	M20	F16	783	21240	19255

### Pressure/Temperature Rating for 15% Glass Filled Teflon



### Features

- ANSI Class 150 & 300
- Spring Loaded Stem Packing
- Bottom Entry Stem to Prevent Blow-Out
- ISO 5211 Mounting Pad
- Lockable Handle as Standard
- Fire Safe as Standard

Item	Description	Part of Valve Assembly				Material		
		1/2" thru 1 1/4"	1 1/2" thru 2 1/2"	3" thru 4"	6" thru 12"	Stainless Steel	Alloy 20	Carbon Steel
1	Body	Yes	Yes	Yes	Yes	A351-CF8M	Alloy 20	A216-WCB
2	Body Seal	Yes	Yes	Yes	Yes	SS 316/Graphite	SS 316/Graphite	SS 316/Graphite
3	Ball	Yes	Yes	Yes	Yes	A351-CF8M	Alloy 20	A351-CF8M
4	End Cap	Yes	Yes	Yes	Yes	A351-CF8M	Alloy 20	A216-WCB
5	Seat	Yes	Yes	Yes	Yes	RPTFE	RPTFE	RPTFE
6	Thrust Ring	Yes	Yes	Yes	Yes	TFM 4215	TFM 4215	TFM 4215
7	Thrust Seal	Yes	Yes	Yes	Yes	Grafoil	Grafoil	Grafoil
8	Stem	Yes	Yes	Yes	Yes	A276-316	Alloy 20	A276-316
9	Packing	Yes	Yes	Yes	Yes	Grafoil	Grafoil	Grafoil
10	Gland Ring	Yes	Yes	Yes	No	A276-316	Alloy 20	A276-316
11	Bushing	No	No	No	Yes	PTFE	PTFE	PTFE
12	Packing Gland	No	No	Yes	Yes	A351-CF8M	Alloy 20	A216-WCB
13	Locking Plate	Yes	Yes	Yes	Yes	Stainless Steel	Stainless Steel	Stainless Steel or Steel
14	Locking Plate Screw	Yes	Yes	No	No	A193-B8	A193-B8	A193-B7
15	Locking Plate Retainer	No	No	Yes	Yes	Stainless Steel	Stainless Steel	Steel
16	Belleville Washer	Yes	Yes	Yes	Yes	A276-301	A276-301	A276-301
17	Travel Stop	Yes	Yes	No	No	Stainless Steel	Stainless Steel	Stainless Steel
18	Lock Washer	Yes	Yes	No	No	Stainless Steel	Stainless Steel	Stainless Steel
19	Stem Nut	Yes	Yes	No	No	A276-304	A276-304	A276-304
20	Handle	Yes	Yes	Yes	Yes	Steel	Steel	Steel
21	Anti-Static Ball	Yes	Yes	Yes	Yes	A276-316	A276-316	A276-316
22	Spring	Yes	Yes	Yes	Yes	A276-316	A276-316	A276-316
23	Stop Pin	Yes	Yes	No	No	Stainless Steel	Stainless Steel	Stainless Steel
24	Threaded Rod	Yes	Yes	Yes	Yes	A193-B8	A193-B8	A193-B7
25	Body Nut	Yes	Yes	Yes	Yes	A194-8	A194-8	A194-2H
26	Handle Washer	No	Yes	Yes	Yes	Stainless Steel	Stainless Steel	Stainless Steel
27	Handle Screw	No	Yes	Yes	Yes	A193-B8	A193-B8	A193-B7
28	Packing Gland Screw	No	No	Yes	Yes	A193-B8	A193-B8	A193-B7
29	Handle Block	No	No	No	Yes	A216-WCB	A216-WCB	A216-WCB
30	Stem Washer	No	No	No	Yes	Stainless Steel	Stainless Steel	Stainless Steel
31	Handle Block Screw	No	No	No	Yes	A193-B8	A193-B8	A193-B7
32	Handle Sleeve	Yes	No	No	No	Plastic	Plastic	Plastic



### Electric Actuator

120/230 VAC  
12/24 VDC  
NEMA 4/7  
Positioners 4-20 mA  
Reversing  
Telemetry  
Battery Back-up  
Spring Return



### Pneumatic Actuator

Double Acting  
Spring Return  
Solenoid Valves  
Limit Switches  
Positioners 3-15 PSI  
Positioners 4-20 mA  
Intelligent Positioner  
Dec clutchable Manual Override



### Manual Valves

Oval Handle  
Spring Return  
Stem Extensions  
Fusible Link  
Lock Device  
Gear Operators

## HOW TO ORDER

91	3	3	R	T	150	100	BAVT
Series	Body & End Material	Ball & Stem Material	Seat Material	Seal Material	End Style	Size	Options
9100 Series 2 Piece Economy Full Port Flanged Ball Valve	1 - Carbon Steel	2 - Alloy 20	C - 25% Carbon PTFE	G - Graphoil	150 - 150# Flange	050 - 1/2"	BAVT - Vented Ball
	2 - Alloy 20	3 - 316 SS	R - 15% Glass PTFE	T - Teflon (PTFE)	300 - 300# Flange	075 - 3/4"	FS - Fire Safe
	3 - 316 SS	6 - Hastelloy C	T - Teflon (PTFE)		600 - 600# Flange	100 - 1"	O2CB - O2 Clean/Bagged
	6 - Hastelloy C		P - PEEK			125 - 1 1/4"	
						150 - 1 1/2"	
						200 - 2"	
						250 - 2 1/2"	
						300 - 3"	
						400 - 4"	
						600 - 6"	
					800 - 8"		
					1000 - 10"		
					1200 - 12"		

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