

AVCO

Alloy Valves and Control

BALL VALVES 9500 SERIES



Size

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

End Connections

150# Flanged
300# Flanged

Valve Materials

316 Stainless Steel

Ball and Stem Materials

316 Stainless Steel

Seat Materials

25% Carbon Filled Teflon
Teflon

Service Applications

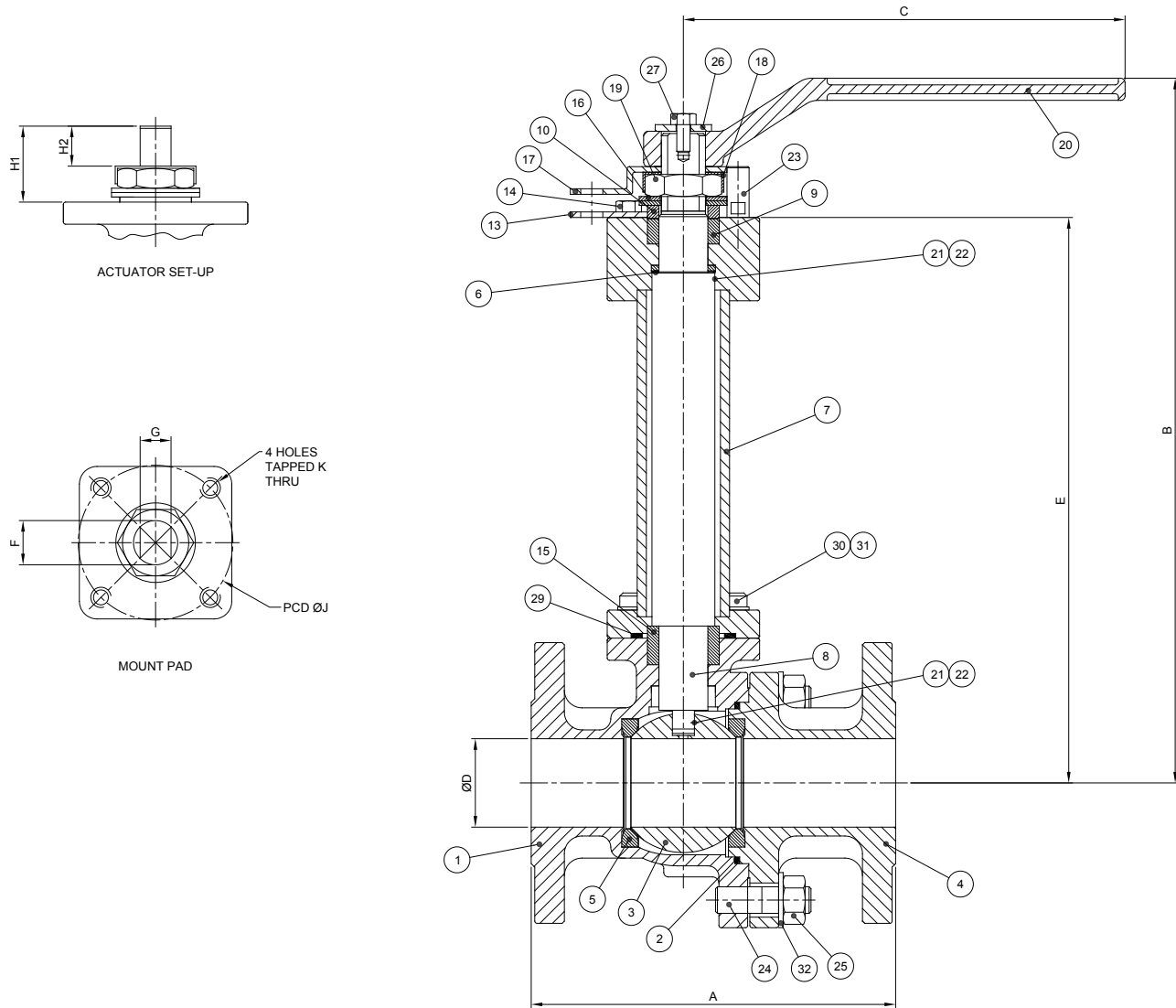
Aerospace
Cryogenic Service
Food Processing
Liquid O₂
Liquid N₂
LNG
Petro-Chemical

Applicable Standards

ASME B16.34
ASME B16.10
ASME B16.5
BS 6364
ISO 21011

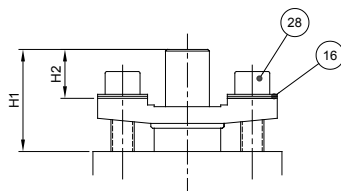
Alloy Valves and Control

1 1/2" THRU 2 1/2"

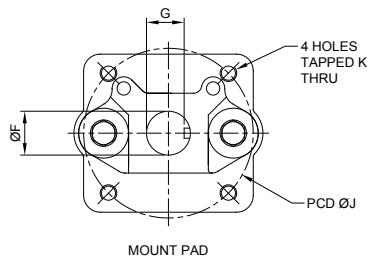


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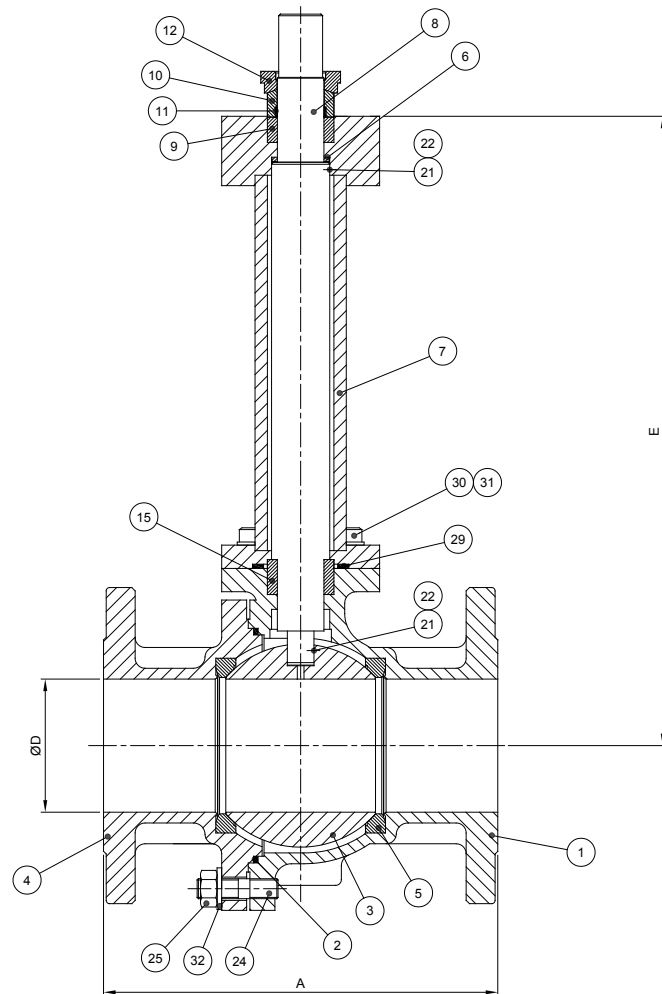
3" THRU 12"



ACTUATOR SET-UP



MOUNT PAD

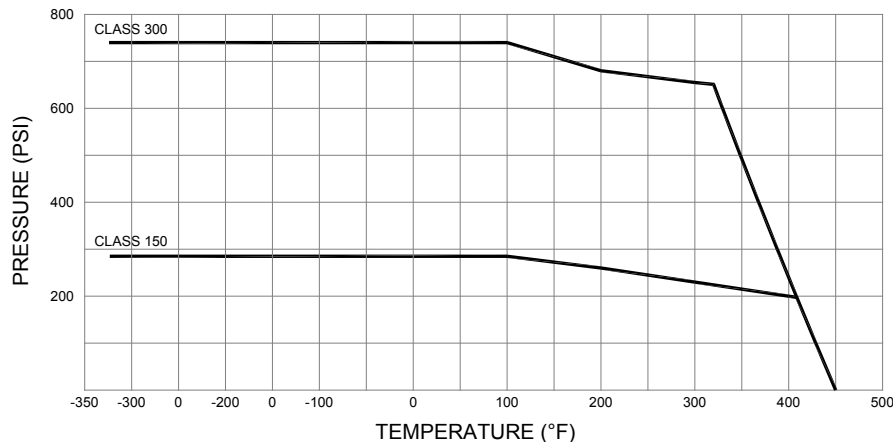


SIZE	ANS Class	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	H1 (in.)	H2 (in.)	J (in.)	K (in.)	ISO 5211	TORQUE (in-lbs)	CV
1 1/2"	150#	6.50	16.85	7.87	1.57	14.39	M20	0.551	1.46	0.69	2.756	M8	F07	216	213
	300#	7.48	16.85	7.87	1.57	14.39	M20	0.551	1.46	0.69	2.756	M8	F07	216	213
2"	150#	7.01	17.16	7.87	1.97	14.68	M20	0.551	1.50	0.69	2.756	M8	F07	300	378
	300#	8.50	17.16	7.87	1.97	14.68	M20	0.551	1.50	0.69	2.756	M8	F07	300	378
2 1/2"	150#	7.48	18.03	11.81	2.56	15.55	M20	0.551	1.50	0.69	2.756	M8	F07	531	660
	300#	9.49	18.03	11.81	2.56	15.55	M20	0.551	1.50	0.69	2.756	M8	F07	531	660
3"	150#	7.99			3.15	4.19	1.102	0.945	2.99	1.77	4.016	M10	F10	781	951
	300#	11.14			3.15	4.45	1.102	0.945	2.99	1.77	4.016	M10	F10	781	951
4"	150#	9.02			3.94	4.80	1.102	0.945	2.99	1.77	4.016	M10	F10	1444	1691
	300#	12.01			3.94	5.06	1.102	0.945	2.99	1.77	4.016	M10	F10	1444	1691
6"	150#	15.51			5.91	23.23	1.417	1.220	2.99	1.97	4.921	M12	F12	3356	3806
	300#	15.87			5.91	23.23	1.417	1.220	2.99	1.97	4.921	M12	F12	3356	3806
8"	150#	17.99			7.87	25.65	1.811	1.594	3.43	1.97	4.921	M12	F12	12744	7812
10"	150#	20.98			9.84	26.62	1.969	1.752	4.09	2.56	5.512	M16	F14	15930	13371
12"	150#	24.02			11.81	29.08	2.362	2.087	5.47	3.15	6.496	M20	F16	21240	19255

Notes

1. Torque values are based upon ambient temperature operation.
2. Dimensions must be clarified before installation as AVCO reserves the right to make design improvements.

Pressure/Temperature Rating for 25% Carbon Filled Teflon



Features

- ANSI Class 150 & 300
- Spring Loaded Stem Packing
- Stem Blow-out Prevention
- Anti-Static
- ISO 5211 Mounting Pad
- Locking Handle as Standard on sizes up to 2 1/2"
- Bare Stem as Standard on sizes 3" and above
- Fire Safe as Standard
- Vented Ball

Item	Description	Valve Size			Material
		1 1/2" thru 2 1/2"	3" thru 4"	6" thru 12"	
1	Body	Yes	Yes	Yes	A351-CF8M
2	Body Seal	Yes	Yes	Yes	SS 316/Graphite
3	Ball	Yes	Yes	Yes	A351-CF8M
4	End Cap	Yes	Yes	Yes	A351-CF8M
5	Seat	Yes	Yes	Yes	CTFE
6	Thrust Ring	Yes	Yes	Yes	TFM 4215
7	Cryogenic Bonnet	Yes	Yes	Yes	A276-316
8	Stem	Yes	Yes	Yes	A276-316
9	Packing	Yes	Yes	Yes	Grafoil
10	Gland Ring	Yes	Yes	No	A276-316
11	Upper Bushing	No	No	Yes	PTFE
12	Packing Gland	No	Yes	Yes	A351-CF8M
13	Locking Plate	Yes	No	No	Stainless Steel
14	Locking Plate Screw	Yes	No	No	A193-B8
15	Lower Bushing	Yes	Yes	Yes	CTFE
16	Belleville Washer	Yes	Yes	Yes	A276-301
17	Travel Stop	Yes	No	No	Stainless Steel
18	Lock Washer	Yes	No	No	Stainless Steel
19	Stem Nut	Yes	No	No	A276-304
20	Handle	Yes	No	No	Steel
21	Anti-Static Ball	Yes	Yes	Yes	A276-316
22	Spring	Yes	Yes	Yes	A276-316
23	Stop Pin	Yes	No	No	Stainless Steel
24	Body Stud	Yes	Yes	Yes	A193-B8
25	Body Nut	Yes	Yes	Yes	A194-8
26	Handle Washer	Yes	No	No	Stainless Steel
27	Handle Screw	Yes	No	No	A193-B8
28	Packing Gland Screw	No	Yes	Yes	A193-B8
29	Gasket	Yes	Yes	Yes	SS 316/Graphite
30	Bonnet Bolt	Yes	Yes	Yes	A193-B8
31	Bonnet Bolt Washer	Yes	Yes	Yes	Stainless Steel
32	Body Bolt Washer	Yes	Yes	Yes	Stainless Steel



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

Lever Handle
Locking Device
Gear Operators

HOW TO ORDER

95	3	3	C	G	150	150	FS
Series	Body & End Material	Ball & Stem Material	Seat Material	Seal Material	End Style	Size	Options
9500 Series 2 Piece Economy Full Port Flanged Cryogenic Ball Valve	3 - 316 SS	3 - 316 SS	C - 25% Carbon PTFE T - Teflon (PTFE)	G - Graphoil	150 - 150# Flange	150 - 1 1/2"	GO - Gear Operated
					300 - 300# Flange	200 - 2"	FS - Fire Safe
						250 - 2 1/2"	LH - Lever Handle
						300 - 3"	O2CB - O2 Clean/Bagged
						400 - 4"	
						600 - 6"	
						800 - 8"	
						1000 - 10"	
						1200 - 12"	

Example ordering codes:

9533CG-150-150-FS-LH = 1 1/2" ball valve with stainless steel body/ball, CTFE seats, Fire Safe, 150# RF Flange ends & locking lever
9533CG-300-600-FS = 6" ball valve with stainless steel body/ball, CTFE seats, Fire Safe, 300# RF Flange ends and bare stem