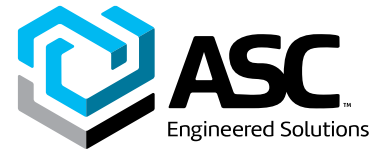


Building connections that last™

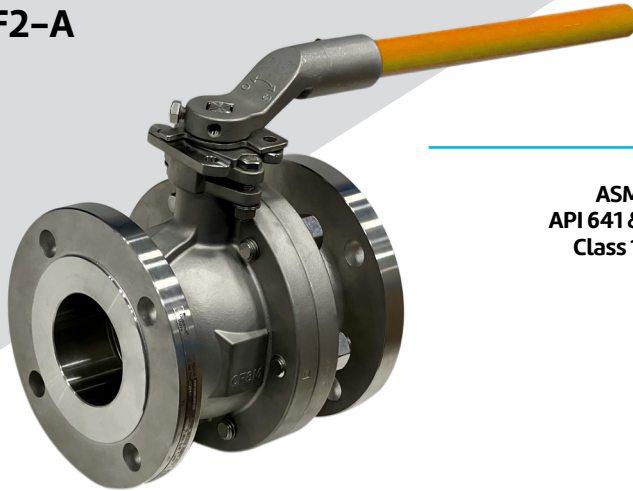


Series F2-A

ASME Class 150 & 300, Flanged,
Full Port, Ball Valve Datasheet



ASME Class 150 & 300, Flanged, Full Port, Ball Valve Series F2-A



**ASME B16.34,
API 641 & API 608,
Class 150 & 300**

Features

- Fully compliant to ASME B16.34 and API 608 5th Ed.
- "Pull down" packing adjustment allows packing adjustment with operators and actuators mounted.
- Live Loaded Stem Packing Design enhances emissions performance and reduces maintenance
- Blowout-proof Stem Design
- Reinforced Seats
- Standard 316 stainless steel ball, stem and packing system
- Fire safe, API 607 7th edition, configurations available.
- API 641, Fugitive Emissions (graphite seals)
- Standard locking handles
- ISO 5211 mounting pads allow direct mounting of ISO operators without brackets or adapters.
- Quadrant valves, actuators, controls, and accessories are designed to work together, delivering exceptional performance.

Ratings

Class 150 WCB rated at 285 PSIG @ 100°F
CF8M rated at 275 PSIG @ 100°F
Saturated Steam Rating: 200 PSIG

Class 300 WCB rated at 740 PSIG @ 100°F
CF8M rated at 720 PSIG @ 100°F
Saturated Steam Rating: 230 PSIG

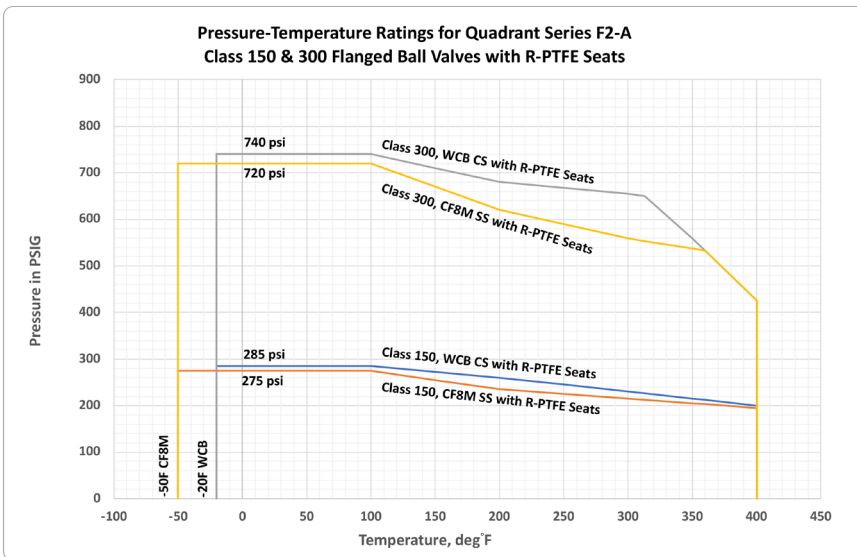


Table of Pressure – Temperature Ratings for Quadrant Series F2-A Ball Valves

Temp, deg °F	ASME Class 150 WCB Carbon Steel & R-PTFE Seats	ASME Class 150 CF8M Stainless Steel & R-PTFE Seats	ASME Class 300 WCB Carbon Steel & R-PTFE Seats	ASME Class 300 CF8M Stainless Steel & R-PTFE Seats
-50	0.00	275.0	0.00	720.0
-20	285.0	275.0	740.0	720.0
0	285.0	275.0	740.0	720.0
50	285.0	275.0	740.0	720.0
100	285.0	275.0	740.0	720.0
150	272.5	255.0	710.0	670.0
200	260.0	235.0	680.0	620.0
250	245.0	225.0	667.5	590.0
300	230.0	215.0	655.0	560.0
313	226.0	212.0	650.0	553.0
350	215.0	205.0	560.0	537.5
360	212.0	203.0	533.0	533.0
400	200.0	195.0	425.0	425.0

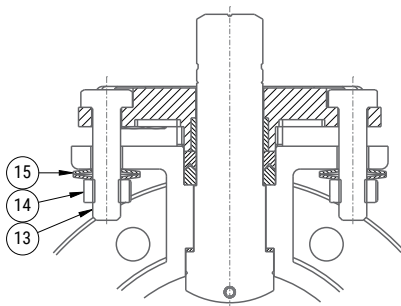
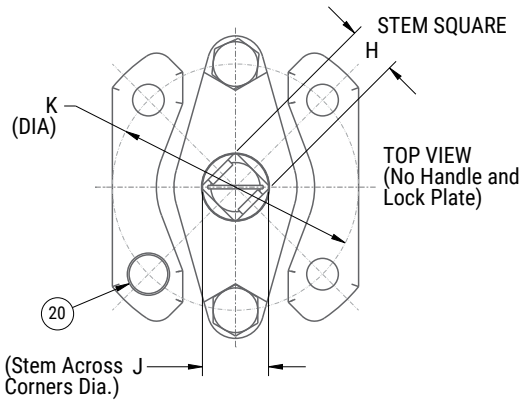
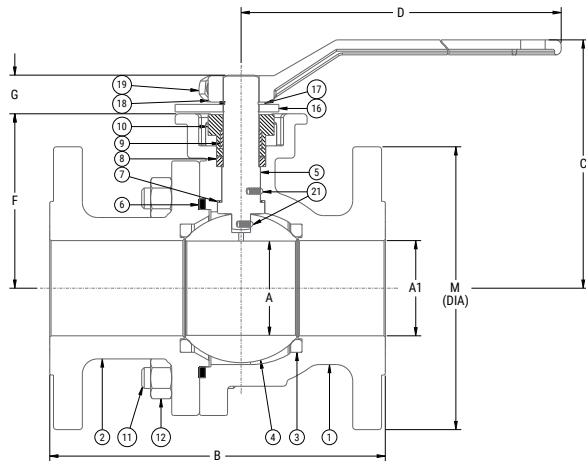
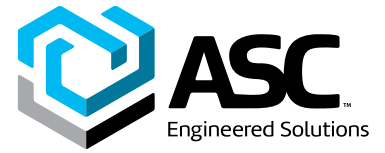
Note PT-1: Class 150 rated to 200 psig saturated steam.

Note PT-2: Class 300 rated to 230 psig saturated steam.

In the chart, the pressure-temperature capability of a specific valve is the region BELOW the horizontal body material line, and BETWEEN the vertical seat material lines.

ASME Class 150 & 300, Flanged, Full Port, Ball Valves

Series F2-A



Materials of Construction – Class 150, 300

Part	Qty.	Description	Standard Materials WCB Construction	Standard Materials CF8M Construction
1	1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	1	Body Cap	ASTM A216 WCB	ASTM A351 CF8M
3	2	Seat	R-PTFE (1)	R-PTFE (1)
4	1	Ball	ASTM A351 CF8M / 316 SS	ASTM A351 CF8M / 316 SS
5	1	Stem	ASTM A276 316 SS	ASTM A276 316 SS
6	1	Body Seal *	Spiral-Wound SS / Graphite, or R-PTFE (1)	Spiral-Wound SS / Graphite, or R-PTFE (1)
7	1	Thrust Washer	R-PTFE (1)	R-PTFE (1)
8	1	Packing Set *	Graphite, or R-PTFE (1)	Graphite, or R-PTFE (1)
9	0 - 1	Stem Bushing (1-½" & larger)	PTFE	PTFE
10	1 (2)	Gland Flange	ASTM A351 CF8M	ASTM A351 CF8M
11	Varies	Stud Bolt	ASTM A193 GR. B7	ASTM A193 GR. B8
12	Varies	Nut	ASTM A194 GR. 2H	ASTM A194 GR. 8
13	2 (2)	Packing Bolt	ASTM A193 GR. B8	ASTM A193 GR. B8
14	2 (2)	Packing Nut	ASTM A194 GR. 8	ASTM A194 GR. 8
15	Varies	Belleville Washer	Stainless Steel	Stainless Steel
16	1	Lock Plate	304 SS	304 SS
17	1	Retaining Ring	Stainless Steel	Stainless Steel
18	1	Handle	Stainless Steel (3)	Stainless Steel (3)
19	1	Lock Bolt or Handle Nut (½" to 1")	304 SS	304 SS
20	1	Stop Bolt	304 SS	304 SS
21	Varies	Ground Pin Assy	300 Series Stainless Steel	300 Series Stainless Steel

1 Glass reinforced PTFE.

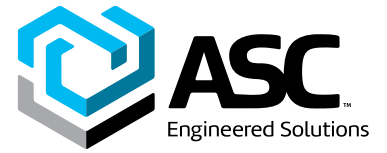
2 1" & smaller valves have a 316 SS gland (10) that threads into the body – No Gland Flange, No Packing Bolt, No Packing Nut, No Belleville Washers.

3 ½" to 1": Stamped Stainless Steel
 1.5" & 2": Cast Stainless Steel
 2½" to 4": Painted Carbon Steel pipe handle
 6" & larger: Gear Operator

* Quadrant Series F2-A valves with Graphite (G) seals passed API 607 and API 641.
 API 607, American Petroleum Institute – Fire Test
 API 641, American Petroleum Institute – Fugitive Emissions Test



ASME Class 150 & 300, Flanged, Full Port, Ball Valves Series F2-A



Dimensions, Weights, C_v Factors & Maximum Operating Torque

Class 150

Size	A (DIA)	A1 (DIA)	B	C	D	F	G	H (Square)	J (DIA)	K (DIA)	M (DIA)	ISO Pattern	Weight Lbs.	C _v	Torque lb-in
½"	0.56	0.56	4.25	2.64	5.12	1.34	0.59	0.2 (2)	0.31	1.65	3.54	F04	3.5	23	100
¾"	0.83	0.83	4.62	3.15	6.93	1.54	0.83	0.22 (2)	0.44	1.65	3.94	F04	5.1	40	150
1"	0.98	1.00	5.00	3.58	7.76	1.85	0.89	11mm	0.56	1.97	4.33	F05	7.0	105	250
1-½"	1.50	1.50	6.50	4.88	10.02	3.35	0.77	14mm	0.74	2.76	5.00	F07	15.4	275	240
2"	1.97	1.99	7.00	5.19	10.02	3.64	0.77	14mm	0.74	2.76	6.00	F07	22.0	472	320
2-½"	2.56	2.56	7.48	6.16	15.94	4.59	0.87	17mm	0.89	2.76	7.00	F07	37	843	480
3"	2.99	2.99	8.00	6.85	15.94	5.28	0.87	17mm	0.89	2.76	7.50	F07	48	1185	990
4"	4.00	4.00	9.00	7.73	18.11	6.18	1.14	22mm	1.10	4.02	9.00	F10	84	2184	1600
6"	6.00	5.98	15.50	Note 1	Note 1	7.80	1.50	27mm	1.42	4.02 & 4.92	11.00	F10 & F12	188	5108	3500

Class 300

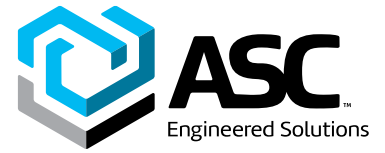
Size	A (DIA)	A1 (DIA)	B	C	D	F	G	H (Square)	J (DIA)	K (DIA)	M (DIA)	ISO Pattern	Weight Lbs.	C _v	Torque in-lbs
1"	0.98	1.00	6.50	3.58	7.76	1.85	0.89	11mm	0.56	1.97	4.92	F05	11.0	105	250
1-½"	1.50	1.50	7.48	4.98	10.02	3.43	0.77	14mm	0.74	2.76	6.12	F07	24.4	275	240
2"	1.97	1.99	8.50	5.29	10.02	3.72	0.77	14mm	0.74	2.76	6.50	F07	30	472	320
3"	2.99	2.99	11.10	6.85	15.94	5.28	0.87	17mm	0.89	2.76	8.25	F07	69	1185	990
4"	4.00	4.00	12.00	7.73	18.11	6.18	1.14	22mm	1.10	4.02	10.00	F10	121	2184	1600
6"	6.00	5.98	15.87	Note 1	Note 1	7.79	1.46	27mm	1.42	4.02 & 4.92	12.50	F10 & F12	263	5108	3500

Note 1: Use Gear Operator.

Note 2: ½" & ¾" have Double D threaded drive.
Dimension shown is flat-to-flat.



ASME Class 150 & 300, Flanged,
Full Port, Ball Valves
Series F2-A



Numbering System How to order Series F2-A

F2	F	C	S	R	G	LH	1F	200	-A
Series	Port / Bore	Body & Tailpiece Material	Ball / Stem Material	Seat Material	Seal Material	Handle Type	Ends	Size	Rev
F2 Split Body Flanged	F Full	C Carbon Steel (cast A216 WCB) S Stainless Steel (cast A351 CF8M)	S 316 Stainless	R R-PTFE (Glass reinforced PTFE)	G * Graphite R R-PTFE (Glass reinforced PTFE)	LH Locking Lever (1" to 4") SL Latch Lock Lever (only ½" and ¾") XH Extended Lever Handle Topworks XO Extended Oval Handle Topworks (1") Not API-608 compliant. PA Double Acting Pneumatic SA Spring Return Pneumatic GO Gear Operated	1F Class 150 RF 3F Class 300 RF	050 075 100 150 200 250 300 400 600	½" ¾" 1" 1-½" 2" 2-½" 3" 4" 6"

* Quadrant Series F2-A valves with Graphite (G) seals passed API 607 and API 641. API 607, American Petroleum Institute - Fire Test
API 641, American Petroleum Institute - Fugitive Emissions Test

Note: Responsibility for proper selection, use and maintenance of any product remains solely with the purchaser and end user. We reserve the right to modify or improve the designs or specifications of any product at any time without notice.



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ASC Engineered Solutions is defined by quality—in its products, services and support. With nearly 2,000 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF®, SprinkFLEX®, Trenton Pipe and VEP. With headquarters in Oak Brook, IL, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.



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