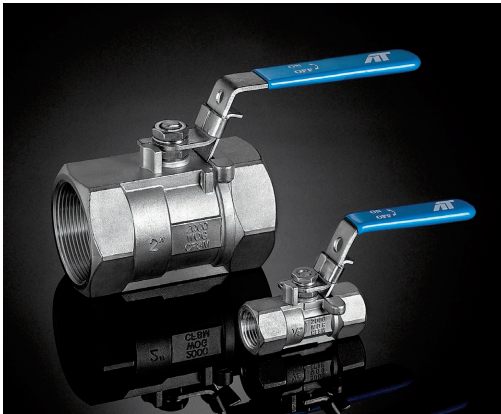


Series 10



- One piece unibody design
- Available in stainless steel only
- Regular port 2000 psi
- Threaded ends only
- See back for dimensions and pressure/temperature chart

Series 10, 20 & 21C

For general industrial and
chemical applications

Investment cast

Economical compact design

Blowout Proof Stem

Primarily for manual use

SERIES 10/20/21C

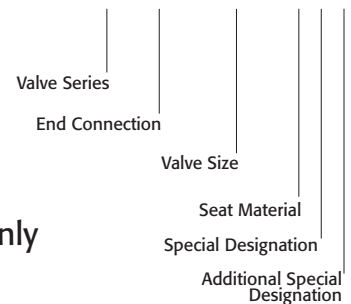
Series 20



- Two piece design
- Available in stainless steel only
- Full port 1000 psi
- Threaded ends only
- See back for dimensions and pressure/temperature chart

SAMPLE PART #

20-TH-0200-XXX

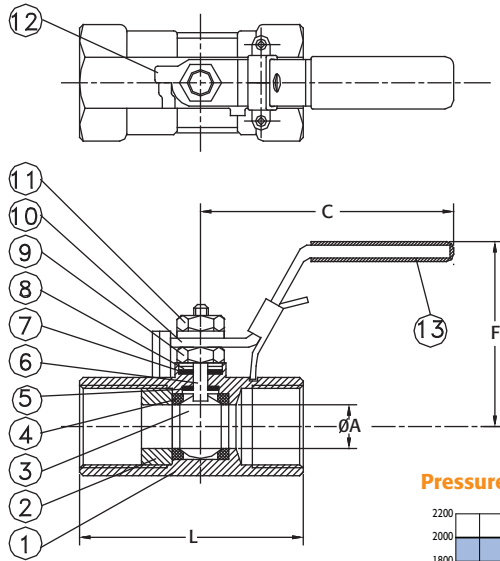


Series 21C



- Two piece design
- Available in carbon steel only
- Regular port 2000/1500 psi WOG (by size)
- Threaded ends only
- See back for dimensions and pressure/temperature chart

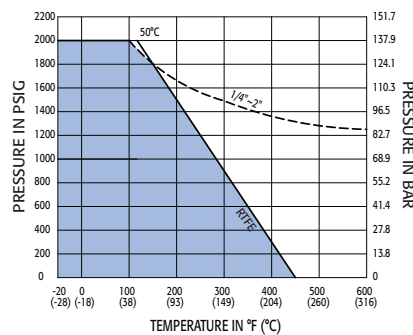
Series 10



MATERIALS LIST

NO.	PART NAME	QTY	MATERIAL
1	BODY	1	ASTM A351 GRADE CF8M
2	INSERT	1	ASTM A276 SS316
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316
3	BALL	1	1/2" THRU 2" ASTM A351 GRADE CF8M
4	SEAT	2	RTFE
5	THRUST WASHER	1	PTFE
6	STEM	1	ASTM A276 SS316
7	PACKING	1	PTFE
8	GLAND WASHER	1	AISI 304
9	STEM NUT	1	AISI 304
10	SPRING WASHER	1	AISI 304
11	HANDLE NUT	1	AISI 304
12	LEVER HANDLE	1	AISI 304
13	HANDLE SLEEVE	1	VINYL

Pressure vs. Temperature for RTFE Seats



DIMENSIONS (IN)

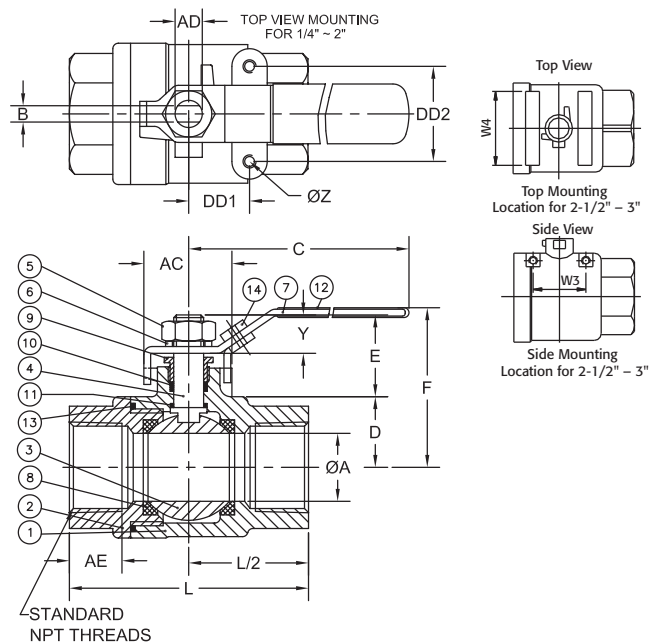
SIZE	A	C	F	L
1/4"	0.36	4.29	1.85	2.30
3/8"	0.36	4.29	1.85	2.30
1/2"	0.36	3.86	2.28	2.60
3/4"	0.49	3.86	2.40	2.76
1"	0.59	4.12	2.51	3.15
1-1/4"	0.79	4.12	2.77	3.74
1-1/2"	0.98	6.15	2.85	3.98
2"	1.26	6.15	3.08	4.49

Series 20

MATERIALS LIST

NO.	PART NAME	QTY	MATERIAL
1	BODY	1	ASTM A351 GRADE CF8M
2	END CAP	1	ASTM A351 GRADE CF8M
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316
3	BALL	1	1/2" THRU 3" ASTM A351 GR CF8M
4	STEM	1	ASTM A276 SS316
5	STEM NUT	1	AISI 304
6	LOCKWASHER	1	AISI 304
7	HANDLE	1	AISI 304
8	SEAT	2	RTFE
9	GLAND NUT	1	AISI 304
10	V-RING PACKING	*	PTFE
11	THRUST WASHER	1	PTFE
12	HANDLE SLEEVE	1	VINYL
13	JOINT GASKET	1	PTFE
14	LOCK SADDLE	1	AISI 304

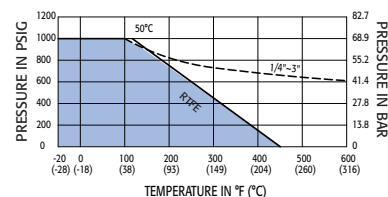
**Regular 1 pc stem packing is used for 1/4" and 3/8"; 1 set of V-Ring packing consists of 2 pcs. of V-Ring for 1/2" - 3" models



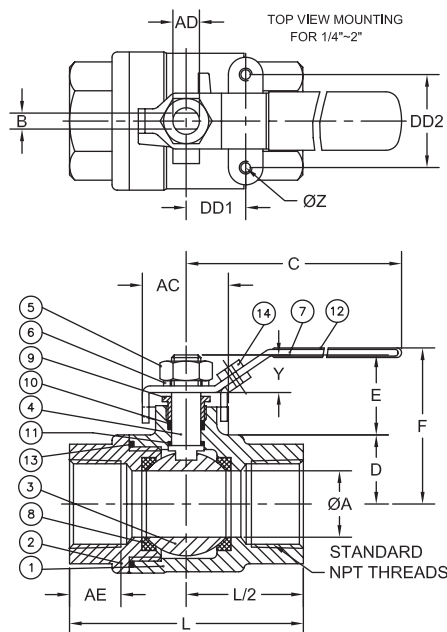
DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Y	Z	AC	AD	AE	DD1	DD2	W3	W4	LBS.
1/4"	0.45	0.197	3.94	0.59	0.88	1.97	2.17	0.39	10-24	1.03	0.31	0.59	0.500	1.122	N/A	N/A	0.51
3/8"	0.49	0.197	3.94	0.60	0.88	1.97	2.17	0.39	10-24	1.02	0.31	0.59	0.500	1.122	N/A	N/A	0.51
1/2"	0.59	0.256	5.12	0.71	1.01	2.36	2.56	0.43	10-24	1.18	0.37	0.63	0.500	1.122	N/A	N/A	0.84
3/4"	0.79	0.256	5.12	0.81	1.01	2.52	2.94	0.43	10-24	1.18	0.37	0.67	0.882	1.378	N/A	N/A	1.15
1"	0.98	0.315	6.50	0.99	1.24	2.80	3.46	0.53	1/4"-20	1.38	0.43	0.80	0.882	1.378	N/A	N/A	2.03
1-1/4"	1.26	0.315	6.50	1.20	1.24	3.07	4.02	0.53	1/4"-20	1.38	0.43	0.87	1.000	1.500	N/A	N/A	2.91
1-1/2"	1.50	0.382	7.48	1.58	1.38	3.39	4.33	0.61	1/4"-20	1.64	0.55	0.89	1.000	1.500	N/A	N/A	4.19
2"	1.97	0.382	7.48	1.83	1.20	3.74	4.92	0.61	1/4"-20	1.58	0.55	1.02	1.000	1.500	N/A	N/A	6.88
2-1/2"	2.56	0.472	9.84	2.41	2.13	5.12	6.32	0.96	1/4"-20	2.09	0.75	1.22	N/A	N/A	2.323	2.402	14.33
3"	3.15	0.472	9.84	2.92	2.17	5.83	7.01	0.96	1/4"-20	2.09	0.75	1.34	N/A	N/A	2.756	2.795	20.50

Pressure vs. Temperature for RTFE Seats



Series 21C



MATERIALS LIST

NO.	PART NAME	QTY	MATERIAL
1	BODY	1	ASTM A216 GRADE WCB
2	END CAP	1	ASTM A216 GRADE WCB
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316
3	BALL	1	1/2" THRU 2" ASTM A351 GRADE CF8M
4	STEM	1	ASTM A276 SS316
5	STEM NUT	1	AISI 304
6	*LOCK WASHER	1	AISI 304
7	HANDLE	1	AISI 304
8	SEAT	2	RTFE
9	GLAND NUT	1	AISI 304
10	V-RING PACKING	**	PTFE
11	THRUST WASHER	1	PTFE
12	HANDLE SLEEVE	1	VINYL
13	JOINT GASKET	1	PTFE
14	HANDLE LOCK	1	AISI 304
16	HANDLE	1	AISI 304

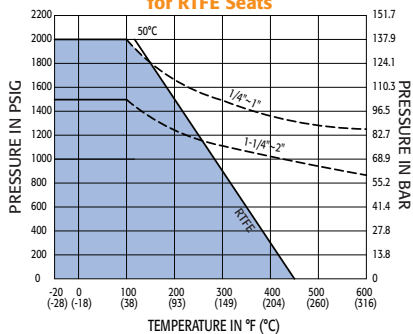
*Present on all valves except 1/4" and 3/8" models

**Regular 1 pc stem packing is used for 1/4" and 3/8"; 1 set of V-Ring packing consists of 2 pcs. of V-Ring for 1/2" and 2" models

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Y	Z	AC	AD	AE	DD1	DD2	LBS.
1/4"	0.37	0.197	4.16	0.59	0.71	1.99	2.01	0.29	10-24	1.03	0.31	0.38	0.51	1.12	0.48
3/8"	0.46	0.196	4.11	0.59	0.68	1.94	2.00	0.31	10-24	1.03	0.30	0.41	0.51	1.12	0.48
1/2"	0.49	0.194	4.02	0.60	0.84	2.13	2.37	0.36	10-24	1.03	0.30	0.50	0.51	1.12	0.62
3/4"	0.59	0.255	5.15	0.71	0.99	2.37	2.74	0.42	10-24	1.19	0.37	0.54	0.87	1.37	0.99
1"	0.79	0.256	5.29	0.86	0.97	2.19	3.29	0.46	10-24	1.18	0.37	0.71	0.86	1.37	1.46
1-1/4"	0.98	0.314	6.67	0.99	1.25	2.84	3.54	0.55	10-24	1.33	0.43	0.68	0.87	1.37	2.38
1-1/2"	1.26	0.313	6.64	1.23	1.18	2.53	4.11	0.56	1/4"-20	1.34	0.43	0.81	0.98	1.49	3.28
2"	1.50	0.381	7.51	1.56	1.20	3.43	4.63	0.60	1/4"-20	1.50	0.55	0.81	1.01	1.49	5.11

Pressure vs. Temperature for RTFE Seats



HOW TO ORDER: Manual Valves with Options

2	Valve Series
10*	1 piece ball valve, regular port
20*	2 piece ball valve, full port
21**	2 piece ball valve, regular port

* Only available in 316SST

** Only available in carbon steel

3	Body/Ball/Stem
Blank	Valve Series Standard (316SST)
C	Carbon Steel Body

4	End Connection
TH	NPT Ends

5	Valve Size
0025	1/4"
0038	3/8"
0050	1/2"
0075	3/4"
0100	1"
0125	1-1/4"
0150	1-1/2"
0200	2"
0250	2-1/2"
0300	3"

6	Seat, Lining & Trim Material
X	Reinforced TFE Seats (RTFE)

7	Special Designation
X	No Specials/Series Standard

8	Additional Specials
X	No Specials, Series Standard

9	Special Designation
Blank	No Designation, Valve Series Standard

HOW TO ORDER MANUAL VALVES

2 3 - 4 - 5 6 7 8 - 9
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
21 C - TH - 0100 - X X X