

Series DT, CT, DB, CB

Floating
Ball Valves



STANDARD FEATURES ON ALL SERIES DT, CT, DB, CB, DBC AND CBR BALL VALVES

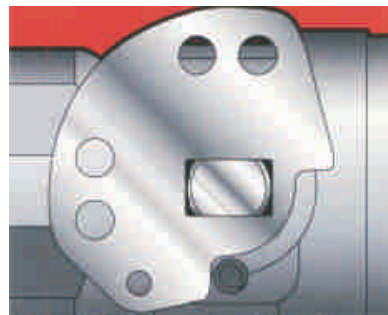
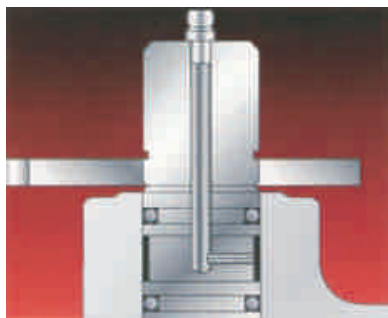
AOP two-piece, threaded and bolted body floating ball valves are designed to meet or exceed today's abrasive and corrosive applications. All AOP DT, CT, DB, CB, DBC, and CBR Series Ball Valves incorporate the following standard features:

- Stem is back-seated and positively retained: cannot be removed with the valve in service
- Stem lube fitting and weather seal
- Hard chrome plated ball for extended life and ease of operation
- Fire Safe Design
- Standard locking handle
- Available in both standard bore and full bore
- Delrin seats standard in all ductile iron and carbon steel bodied valves
- Conforms to NACE MR0175 Standard with 316 Stainless Steel Trim
- Double stem flat design indicates ball position
- Ball includes pressure equalization hole to prevent trapped pressure in body cavity



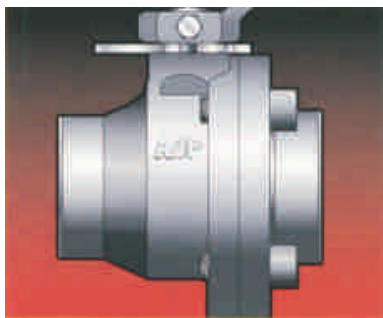
STEM LUBE FITTING AND WEATHER SEAL

External stem lube fitting and internal lube channel allows for effective lubrication of the stem journal. Weather seal prevents external attack by corrosion and foreign abrasives.



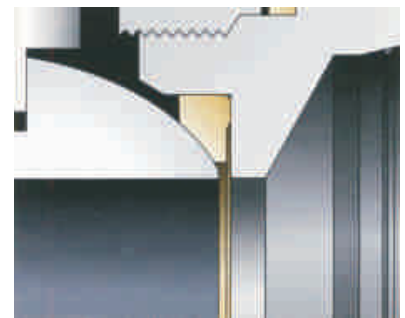
BOLTED BODY DESIGN

AOP's DB and CB Series Ball Valve is a rugged two-piece bolted design. Our premier ball valve is available in sizes 1 1/2 in. FP - 4 in. FP and pressures up to 5000 psi with carbon steel. Body materials are available in ductile iron and carbon steel. Ask for our threaded body design as your alternate choice.



STANDARD DELRIN SEATS

AOP seats provide bubble-tight sealing at high and low pressures. In the event of seat damage (e.g., fire) the design incorporates metal-to-metal sealing. Optional seat materials include Nylon, RTFE, PEEK and Devlon.

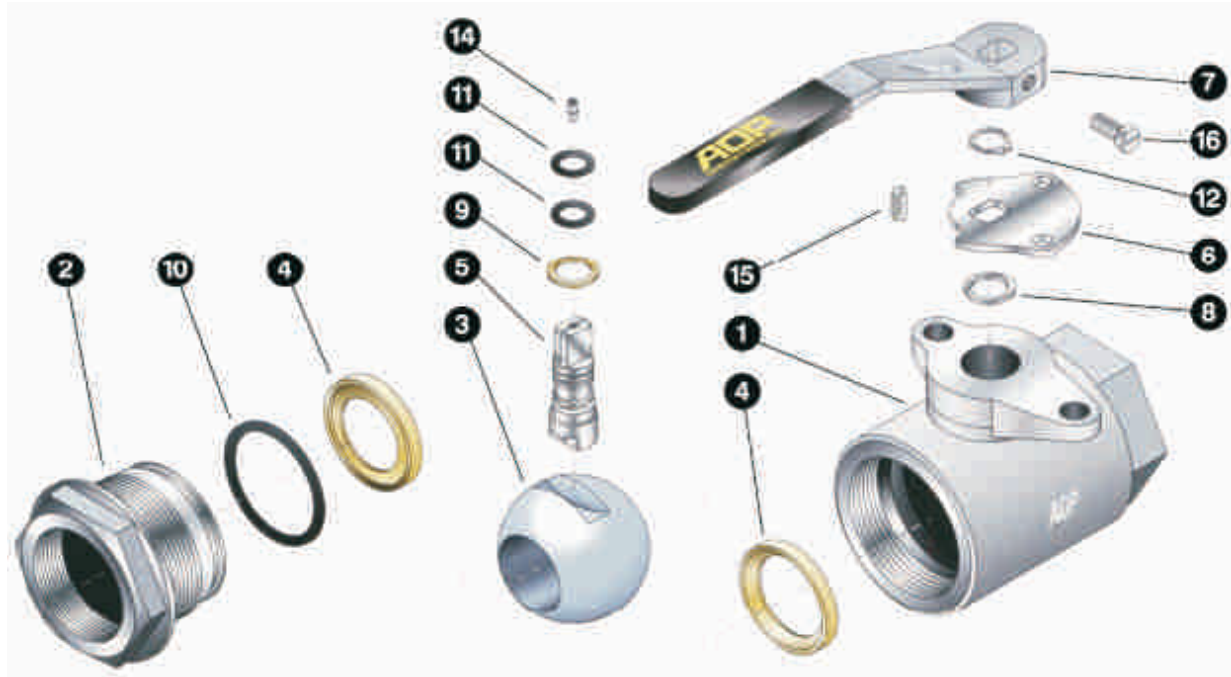


DT SERIES 1000 BALL VALVE (2 in., 3 in. and 4 in.)

This precision engineered valve is designed for 1000 psi maximum working pressure in both threaded and grooved end connections.

The DT 1000 Series valve is competitively priced with light-weight industrial valves, but rugged enough to endure most oilfield environments. The valve is standard with dart and chain for double-locking capabilities in the open or closed position.

SERIES DT & CT MATERIALS AND PART CODES



COMPONENT/OPTION CODES

Body/Adapter Material

- 1 - Carbon Steel
- 3 - Ductile Iron
- 5 - Coated Ductile Iron
- 6 - Coated Carbon Steel

Trim Material (Ball/Stem)

- 1 - CS/CS Standard (CS Trim Non-NACE)
- 2 - 316 SS/316 SS (NACE SS Trim Only)

End Connection

- 1 - Threaded
- 3 - Grooved

Seats

- 1 - Devlon
- 3 - RTFE
- 4 - Nylon
- 5 - PEEK
- 7 - Delrin

Seals

- 1 - Buna-N
- 2 - FKM
- 3 - LT Buna-N
- 9 - HNBR

Actuation

- 1 - Handle
- 3 - Gear Operator
- 4 - Gear Operator w/Locking Device
- 9 - Bare Stem

Options

- 9 - None

XXXX - X X X X X X X

Base No. Suffix Codes

SERIES DT & CT ASSEMBLY BASE NUMBERS

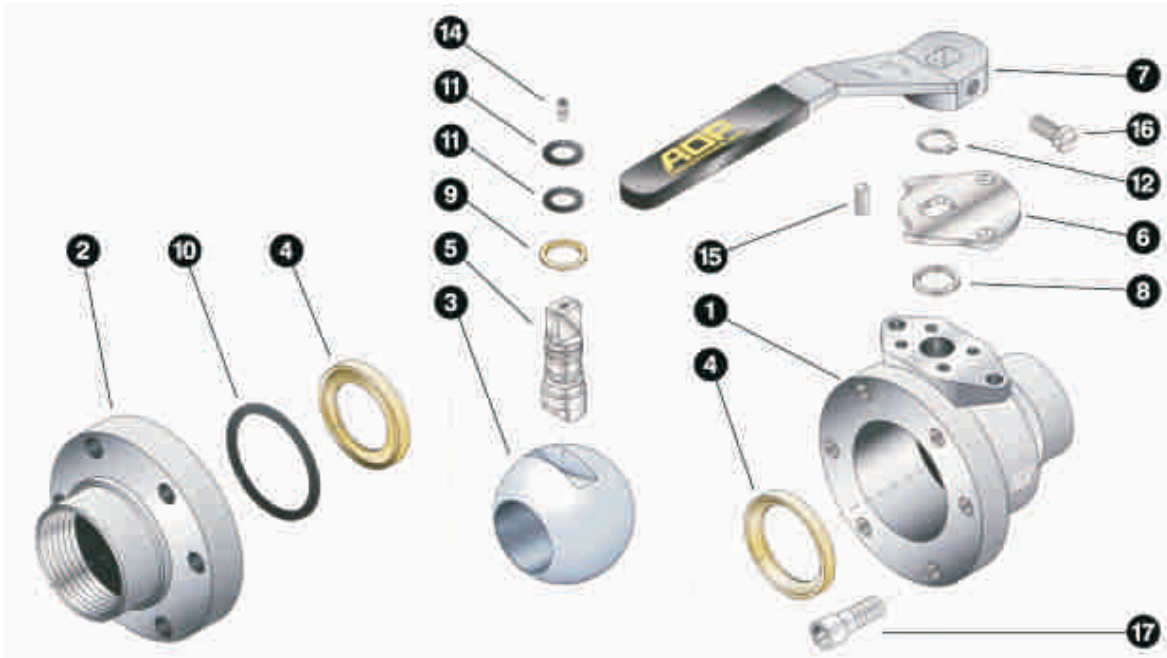
Model Size (in.)	1 FP	2 RP	2 FP	3 RP	4 RP
DT 1000	-	7502	7503	7505	7507
DT 1500	1500	1502	1503	-	-
DT 2000	2000	2002	2003	-	-
CT 2500	2500	2502	2503	-	-
CT 3000	3000	3002	3003	-	-
CT 5000	5000	5002	-	-	-

SERIES DT & CT MATERIALS LIST

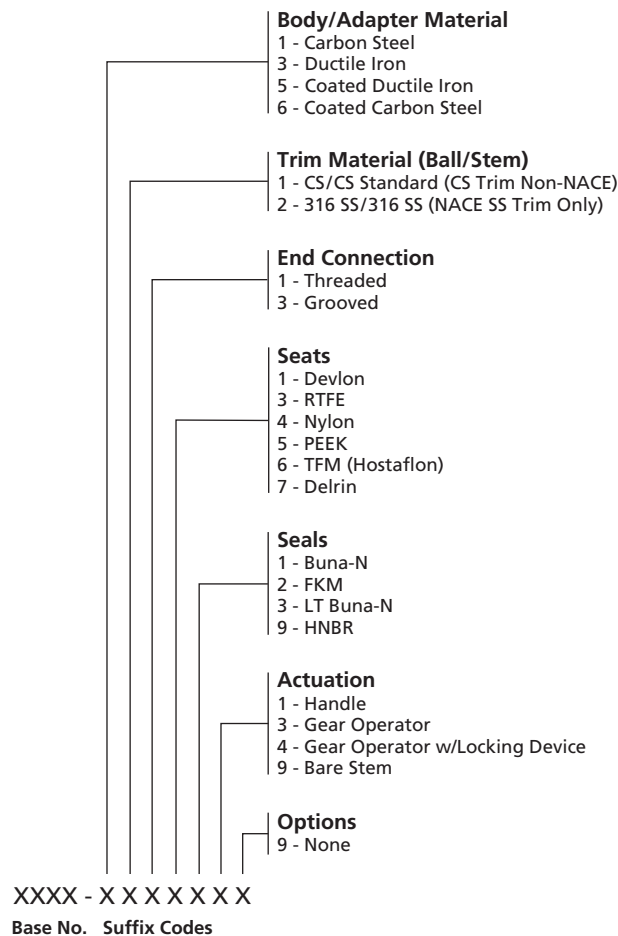
Item	Qty.	Part	Material (Standard)
1	1	Body	ASTM A395 Ductile Iron, ASTM A216 WCB Carbon Steel
2	1	Adapter	ASTM A395 Ductile Iron, ASTM A216 WCB Carbon Steel
3	1	Ball	Hard Chrome Plated Ball 316 Stainless Steel (NACE)
4	2	Seat	Delrin, Nylon
5	1	Stem	Plated Carbon Steel, 316 Stainless Steel (NACE)
6	1	Stop Plate	Plated Steel
7	1	Handle	Ductile Iron
8	1	Stem Bearing	Nylon
9	1	Thrust Bearing	TFE
10	1	Body Seal	Buna-N/FKM (NACE)
11	2	Stem Seal	Buna-N/FKM (NACE)
12	1	Retaining Ring	Spring-Steel
14	1	Lube Fitting	Steel
15	1	Stop Pin	Steel
16	1	Handle Bolt	Plate Steel

Note: All Valves incorporating 316 Stainless Steel Trim Conform to NACE MR0175.

SERIES DB, DBC, CB, CBA & CBR MATERIALS AND PART CODES



COMPONENT/OPTION CODES



SERIES DB & CB ASSEMBLY BASE NUMBERS

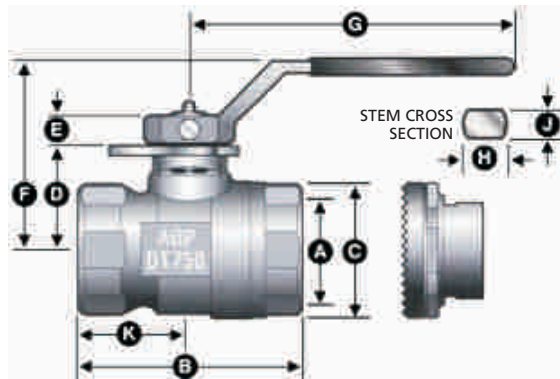
Model Size (in.)	1.5 FP	2 RP	2 FP	2.5 RP	3 RP	3 FP	4 RP	4 FP	4 FP 8 RD.
DB 1500	-	1602	1603	-	1605	1606	1607	1608	1609
DB 2000	-	2102	2103	-	2105	-	-	-	-
DBC 2000	-	-	-	-	-	-	-	2108	2109
CB 2500	-	2602	2603	2604	2605	2606	2607	-	-
CB 3000	3101	3102	3103	-	3105	3106	3107	-	-
CB 5000	5101	5102	5103	-	-	-	-	-	-
CBA	-	-	3202	-	-	-	-	-	-
CBR	3200	-	-	-	-	-	-	-	-

SERIES DB & CB MATERIALS LIST

Item	Qty.	Part	Material (Standard)
1	1	Body	ASTM A395 Ductile Iron, ASTM A216 WCB Carbon Steel
2	1	Adapter	ASTM A395 Ductile Iron, ASTM A216 WCB Carbon Steel
3	1	Ball	Hard Chrome Plated Ball 316 Stainless Steel (NACE)
4	2	Seat	Delrin, Nylon
5	1	Stem	Plated Carbon Steel, 316 Stainless Steel (NACE)
6	1	Stop Plate	Plated Steel
7	1	Handle	Ductile Iron
8	1	Stem Bearing	Nylon
9	1	Thrust Bearing	TFE
10	1	Body Seal	Buna-N/FKM (NACE)
11	2	Stem Seal	Buna-N/FKM (NACE)
12	1	Retaining Ring	Spring-Steel
14	1	Lube Fitting	Steel
15	1	Stop Pin	Steel
16	1	Handle Bolt	Plate Steel
17	4 - 6	Body Bolts	ASTM A574 Steel

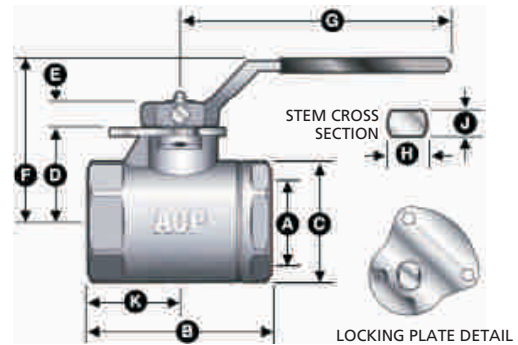
Note: All Valves incorporating 316 Stainless Steel Trim Conform to NACE MR0175.

SERIES DT & CT DIMENSIONAL DATA



DT 1000

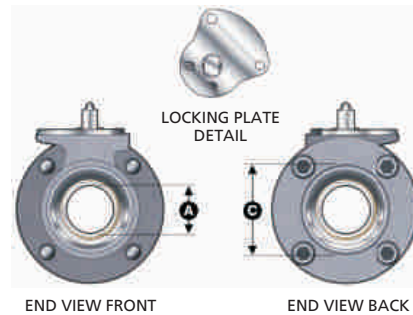
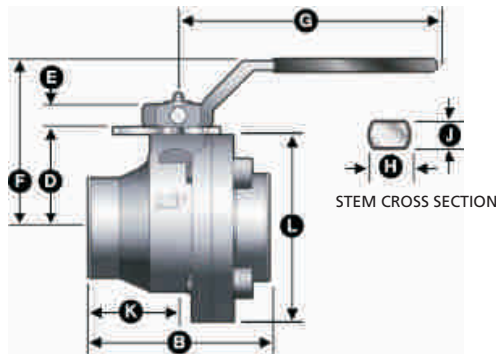
DIMENSION (in.)	2 RP 2 x 1.5	2 FP 2 x 2	3 RP 3 x 2	4 RP 4 x 3
A	1.5	2.06	2.06	3
B	5.25	5.75	7.25	8.75
B Grooved	5.25	5.75	6	7.25
C	3.125	3.125	4.375	6
C Grooved	3.375	3.375	4.5	6.375
D	2.906	3.25	3.25	3.625
E	0.75	0.75	0.75	1
F	4.906	5.25	5.25	6.125
G	8	8	8	15
H	0.873	0.873	0.873	1.24
J	0.56	0.56	0.56	0.622
K	2.625	2.86	3.625	4.375
K Grooved	2.625	2.875	3	3.625



DT 1500, DT 2000, CT 2500, CT 3000, CT 5000

DIMENSION (in.)	1 FP 1 x 1	2 RP 2 x 1.5	2 FP 2 x 2
A	1	1.5	2.06
B	4	5.25	6
C	1.875	3	3.88
D	1.718	2.625	3.5
E	0.562	0.75	0.875
F	3.062	5.625	5.312
G	6.25	8.25	8
H	0.623	0.873	0.873
J	0.372	0.56	0.56
K	2	2.75	3

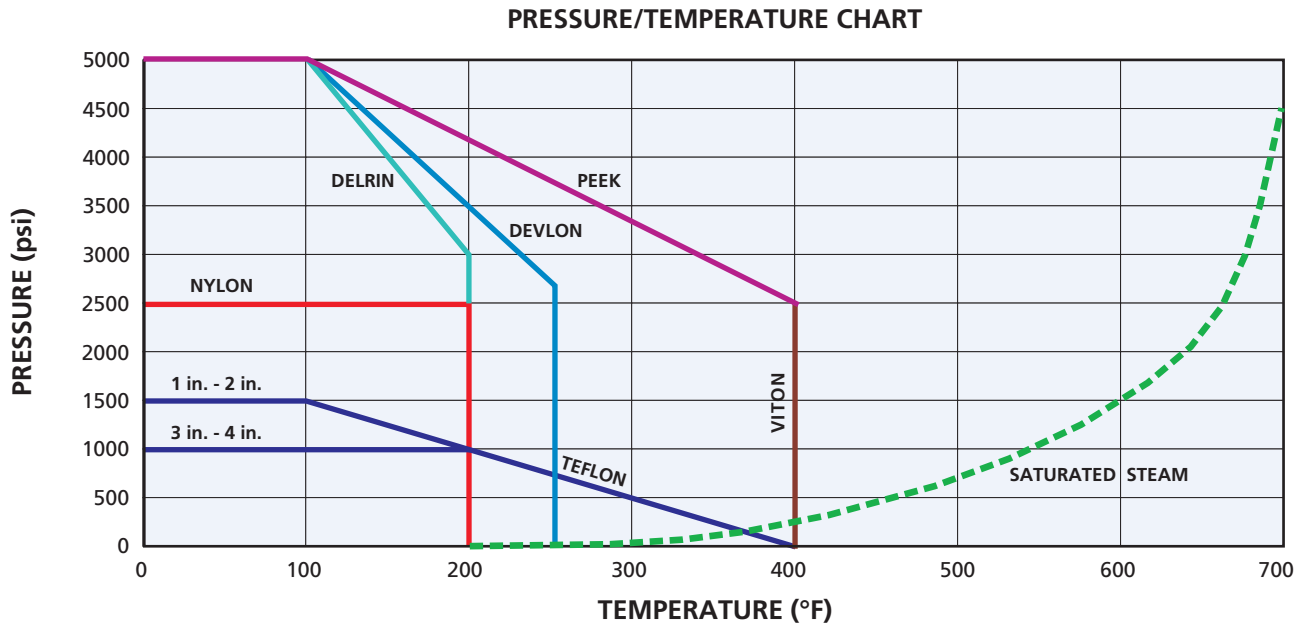
SERIES DB, DBC & CB, CBA, CBR DIMENSIONAL DATA



DB 1500, DB 2000, DBC 2000, CB 2500, CB 3000, CB 5000, CBA 2160, CBR 2500

DIMENSION (in.)	1 FP 1 x 1	1.5 FP 1.5 x 1.5	2 RP 2 x 1.5	2 FP 2 x 2	2.5 RP 2.5 x 2	3 RP 3 x 2	3 FP 3 x 3	4 RP 4 x 3	4 FP 4 x 4
A	1	1.5	1.5	2.06	2.06	2.06	3	3	4.06
B	3.875	5.5	5.5	5.75	5.75	7.25	8.125	8.625	12.25
C	1.875	2.375	3	3.125	3.125	4.25	4.25	5.25	5.75
D	1.875	2.875	2.875	3.5	3.5	3.5	4.69	4.69	5.325
E	0.562	0.75	0.75	0.875	0.875	0.875	1.063	1.063	1.13
F	3.625	4.937	4.937	5.312	5.312	5.312	6.75	6.75	8.4
G	6.25	8	8	8	8	8	15	15	18
H	0.623	0.873	0.873	0.873	0.873	0.873	1.24	1.24	1.365
J	0.372	0.56	0.56	0.56	0.56	0.56	0.622	0.622	0.745
K	1.937	2.75	2.75	2.875	2.875	3.812	4.187	4.437	6.05
L	3.375	4.875	4.875	6.125	6.125	6.875	8	8	10.25

ENGINEERING SPECIFICATIONS



These pressure and temperature ratings are the maximum shut-off for each seat combination for continuous service at temperature. For maximum ASME body ratings consult the factory.

Enduro-Bond Coating

Enduro-Bond Coating available for increased life span comparable to Stainless Steel or Aluminum Bronze.

TORQUE VALUES in - lbs.

Bore Size (in.)	Pressure (psi)					
	1000	1500	2000	2500	3000	5000
1	345	590	750	900	1080	1500
1 1/2	710	890	1120	1400	1750	2700
2	945	1200	1500	1880	2350	-
3	2155	2700	3200	-	4100	-
4	3950	-	-	-	-	-

Torques are based on clean wet service. If other conditions exist, a service factor should be applied. Consult AOP for specific service.

C_v VALUES

Size (in.)	Standard Port	Full Port
1	-	60
1 1/2	-	130
2	120	360
2 1/2	216	-
3	350	996
4	480	1893

Flow in US gallons of water per minute with a 1 psi pressure drop across the valve. Use this value in the flow formulas.



AOP Industries

2101 South Broadway
Moore, Oklahoma 73160

P.O. Box 6979

Moore, Oklahoma 73153-0979

Phone: 405-912-4446

Toll Free: 800-654-4493

Fax: 405-912-4440

E-Mail: sales@aopind.com

Web Address: www.aopind.com