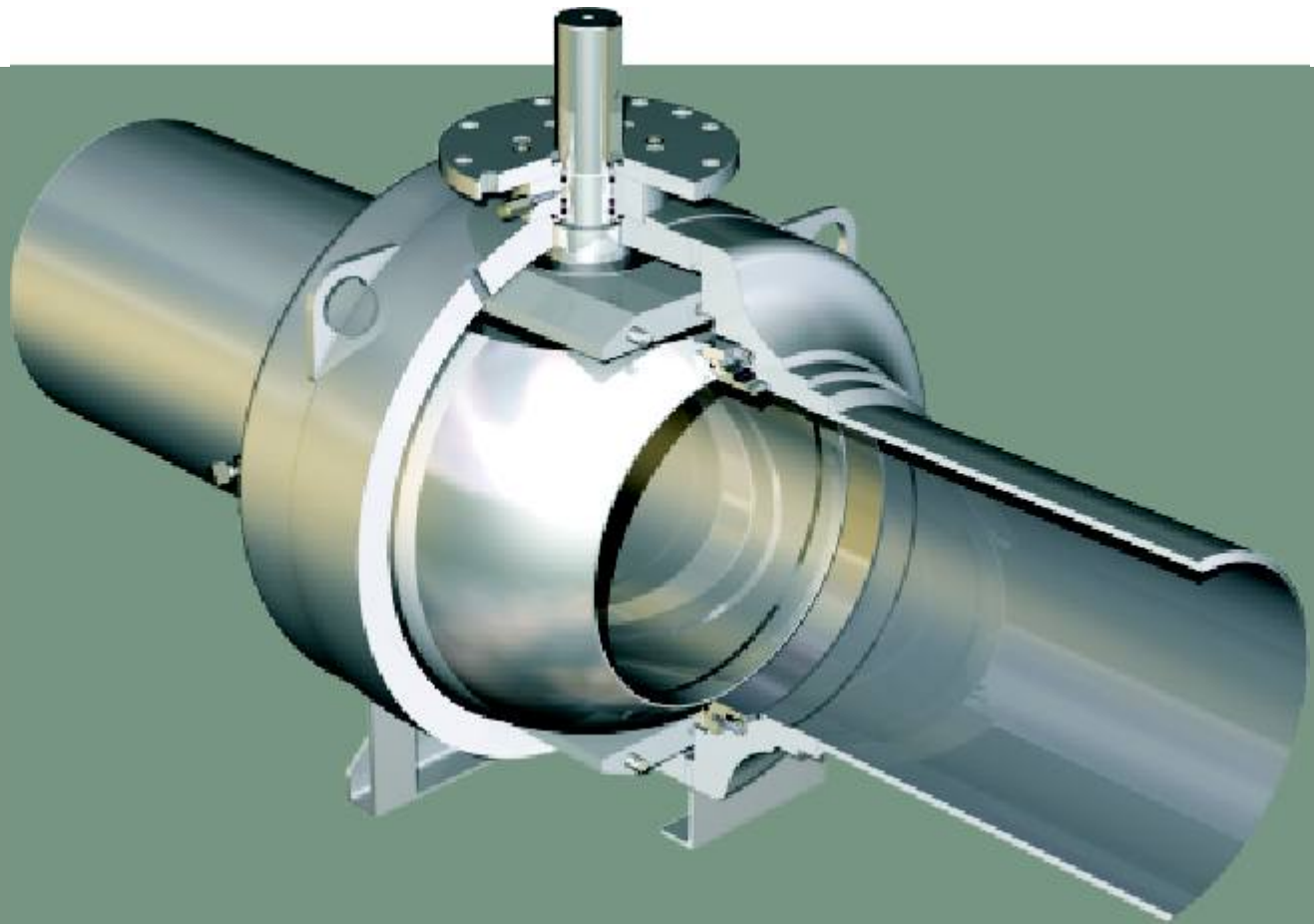


# CAMERON<sup>®</sup> B8 Fully Welded Body Ball Valves



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**CAMERON<sup>®</sup>**

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## OVERVIEW AND APPLICATIONS

The B8 Valve offered by CAMERON is a fully welded body design which reduces the number of potential leak paths and is fully compliant with ISO 14313/API 6D.

The welded body configuration allows for considerable reduction in weight especially in short pattern (B8a) Weld End by Weld End (WE x WE) configurations. The B8 design is well suited for many applications and is available in optional high alloy trims. The B8 ring forged design is ideal for severe applications in high pressure and corrosive service and can be trimmed to meet exact customer specifications. The B8a is the same as the B8, except it indicates a WE x WE configuration with End-to-End length shorter than standard ISO 14313/API 6D WE x WE published dimensions.

The B8 Welded Body Ball Valve is engineered for heavy duty, maintenance-free performance.

The B8 is commonly selected for a number of applications, including:

- Gas transmission
- Products pipeline
- Measurements skids
- Dehydration systems
- Gas separation systems
- Natural gas storage
- Dryer Service
- NGL plants and pipelines
- Compressor stations
- CO<sub>2</sub> Services
- Offshore and Subsea Applications

The B8 family of valves includes the B8.1 for valves in 4 in. (100 mm) and smaller diameter, B8 and B8a for valves 6 in. (150 mm) and larger.

Where there are differences in this catalog, they will be indicated.

## RANGE OF PRODUCTION

SIZE		ASME CLASS						
in.	(mm)	150	300	400	600	900	1500	2500
2	(50)	●	●	●	●	●	●	●
3	(80)	●	●	●	●	●	●	●
4	(100)	●	●	●	●	●	●	●
6	(150)	■	■	■	■	■	■	●
8	(200)	■	■	■	■	■	■	■
10	(250)	■	■	■	■	■	■	■
12	(300)	■	■	■	■	■	■	■
14	(350)	■	■	■	■	■	■	■
16	(400)	■	■	■	■	■	■	■
18	(450)	■	■	■	■	■	■	■
20	(500)	■	■	■	■	■	■	■
22	(550)	■	■	■	■	■	■	■
24	(600)	■	■	■	■	■	■	■
26	(650)	■	■	■	■	■	■	■
28	(700)	■	■	■	■	■	■	■
30	(750)	■	■	■	■	■	■	■
32	(800)	■	■	■	■	■	■	■
34	(850)	■	■	■	■	■	■	■
36	(900)	■	■	■	■	■	■	■
38	(950)	■	■	■	■	■	■	■
40	(1000)	■	■	■	■	■	■	■
42	(1050)	■	■	■	■	■	■	■
48	(1200)	■	■	■	■	■	■	■
54	(1350)	■	■	■	■	■	■	■
56	(1400)	■	■	■	■	■	■	■
60	(1500)	■	■	■	■	■	■	■

B8.1 ● B8 ■

## B8 STANDARD DESIGN FEATURES

The B8.1 is a welded body, forged steel Trunnion design valve, covering sizes 2 in. (50 mm) through 6 in. (150 mm) (Reduced Bore) ASME pressure classes 150 through 2500.

The B8 is a welded body, forged steel, Trunnion bearing block design, covering sizes 6 in. (150 mm) through 60 in. (1500 mm) in ASME pressure classes 150 through 2500.

- Body Construction - Body is made from three forged parts and all-welded construction minimizes leak paths to the environment and is available in a wide selection of materials
- Trunnion Mounted Ball
- Triple Barrier Stem Seals
- Stem separate from ball
- Anti blow-out stem design
- Low Friction metal-backed self lubricating PTFE sleeve bearings and thrust washers to reduce torque and extend service life
- PMSS - (Primary Metal Secondary Soft) Metal-to-Metal seat to ball seal and secondary protected O-Ring seal in the B8 and B8a
- Plastic polymer insert for soft sealing in the B8.1
- Double Piston Effect (DPE) - Double barrier of sealing in both directions in the B8 and B8a
- Single Piston Effect (SPE) - Provides sealing from pipeline direction in the B8.1
- Block-and-Bleed and Double-Block-and-Bleed
- Cavity relief valve for overpressure due to liquid thermal expansion in the B8 and B8a
- Stem and Seat Sealant Injection System
- Factory positioned external stops
- Integral stop in the adapter plate for a permanent reference to open and closed positions
- Electroless Nickel Plating (ENP) on pressure controlling parts and stem
- Bearing Block Trunnion design on B8 and B8a

## OPTIONAL FEATURES

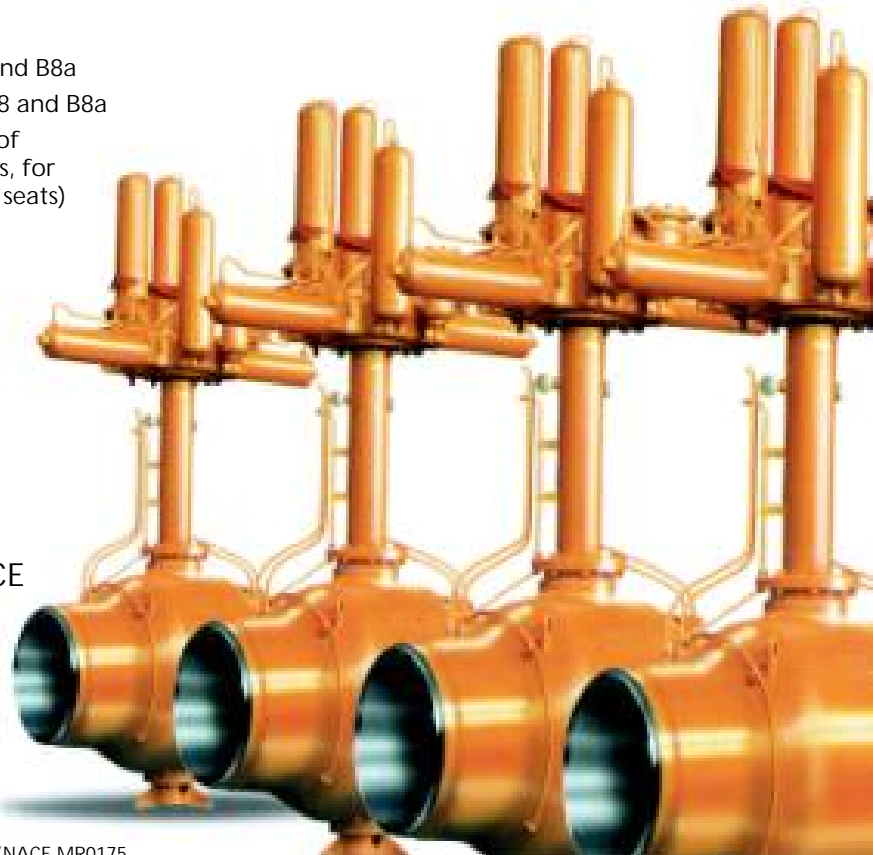
- Self Relieving Seat Rings for B8 and B8a
- Soft Seats (polymer inserts) for B8 and B8a
- Spring energized gaskets, made of PTFE with various grades of fillers, for stem and seats (Lip Seals for DPE seats)
- Metal-to-Metal seat sealing
- Stainless or Inconel overlay in critical sealing areas
- Anti-static device
- Cavity Relief valve for overpressure due to liquid thermal expansion in the B8.1
- Stem Extensions
- Transition Pieces
- Fully Welded Bonnet

## STANDARDS OF COMPLIANCE

- ISO 14313/API 6D
- ASME B16.34
- ISO 17423/API 6DSS
- API 6FA and API 607\*
- ISO 15156/NACE MR0175\*\*

\* Contact CAMERON for specific information.

\*\* Materials of construction are in compliance within the limits of use defined by ISO 15156/NACE MR0175.



## B8, B8a AND B8.1 STANDARD DESIGN FEATURES

### BODY CONSTRUCTION

The body utilizes Rolled Ring Forgings which are available in a large array of materials making the B8 well suited for special applications as well as standard service. The body is made from three forged parts and its all welded construction has fewer leak paths than traditional ball valves. A cavity relief valve is installed in the body to relieve any over pressurization encountered during service or testing (optional in the B8.1). Integrity of sealing surfaces can be monitored without pressure in the pipeline by pressurizing the body cavity (optional in the B8.1).

All welding processes for the body are suited to the materials of construction and are qualified and performed according to ASME Section IX.

Non-Destructive Tests (NDT) are performed per ASME VIII Division 1, App. 12 on the circumferential weld joints of the body.

The compact shape of the body allows for the easy absorption of bending loads coming from the pipeline.



### TRUNNION MOUNTED BALL CONSTRUCTION

The B8 and B8a (>4 in. (100 mm)) are a Bearing Block design which absorbs the pressure end-load (side load) for the stem, reducing torques and allows for gearboxes and actuators to be sized smaller than competing valves of the same size and working pressure.

The B8.1 (2 - 4 in. (50 - 100 mm)) utilizes a traditional Trunnion Mounted Ball with torques significantly less than floating ball valves.

The ball rotates on a pair of self lubricated bearings.

The side load, produced from the line pressure against the closed ball is totally absorbed by the body through the upper and lower bearing retainers.

The slot and tongue connection between the ball and the stem is designed to reduce stresses in the stem and ball.



### STEM CONSTRUCTION

The stem of the CAMERON B8 is of an anti blow-out design which prevents ejection of the stem when the valve is under pressure. The combination of the rugged stem and ball design provides this in compliance with ISO 14313/API 6D requirements. The stem features Triple Barrier Seals to isolate the stem from line pressure and to seal from the atmosphere.

Low Friction metal-backed self-lubricating PTFE sleeve bearings and thrust washers reduce stem torque and extend the service life of the valve. The stem function by design is to transmit torque only required to operate the valve.

The absence of a side load on the stem assures low operating torque and long life.



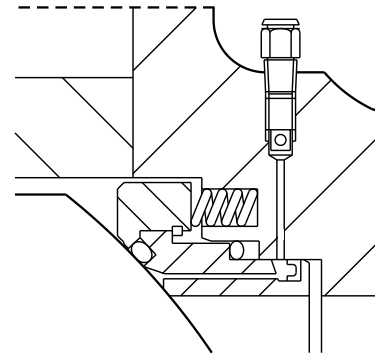
## B8 STANDARD DESIGN FEATURES

### SEAT SEAL

The floating seats are free to move slightly along the longitudinal axis of the valve. The valve is bi-directional. The initial seal at extremely low pressure differential, or vacuum conditions, is obtained through the force of the springs acting on the floating seats. Line pressure, behind the seat ring, supplements the seat spring load to force the seat tightly against the ball.

The sealing is performed by PMSS (Primary Metal, Secondary Soft) seat to ball in the B8 and B8a. The soft sealing between the seat and the ball is achieved by an elastomeric O-ring or plastic O-ring or insert depending on the service conditions. In the B8.1, the seat seal is a soft polymeric seal.

A secondary sealant injection system is provided for emergency seat sealing. In addition to the seat injection fittings, a check valve installed in the body prevents escape of the internal fluid.

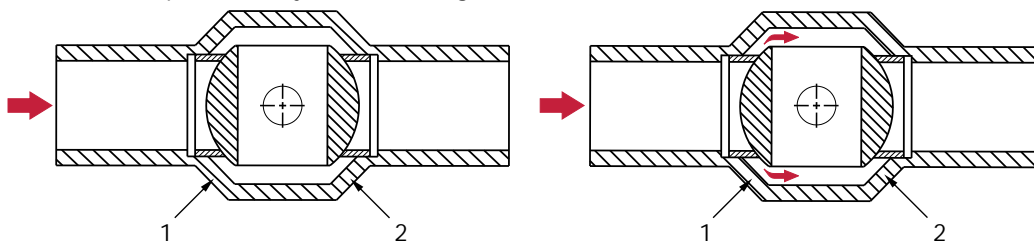


### DOUBLE PISTON EFFECT (DPE) SEAT DESIGN

The CAMERON B8 seat design allows for both seats to seal with pressure acting from the same side of the valve. With line pressure in the body cavity, or in the event of one seat becoming damaged, the user has the added advantage of the opposite seat sealing.

There is a double barrier in both directions. Sealing is assured regardless of the direction of flow through the valve. The upstream seat (1) becomes damaged and leaks, pressures entering the body cavity act on the downstream seat (2) sealing the downstream seat tightly against the ball.

NOTE: The DPE feature and the Double-Block-and-Bleed (DBB) feature are not to be confused with each other, and the DBB feature is explained fully in this catalog.



### DOUBLE-BLOCK-AND-BLEED / BLOCK-AND-BLEED

The Double-Block-and-Bleed (DBB) and Block-and-Bleed feature is used to ensure valve integrity and to safeguard downstream work.

#### Block-and-Bleed

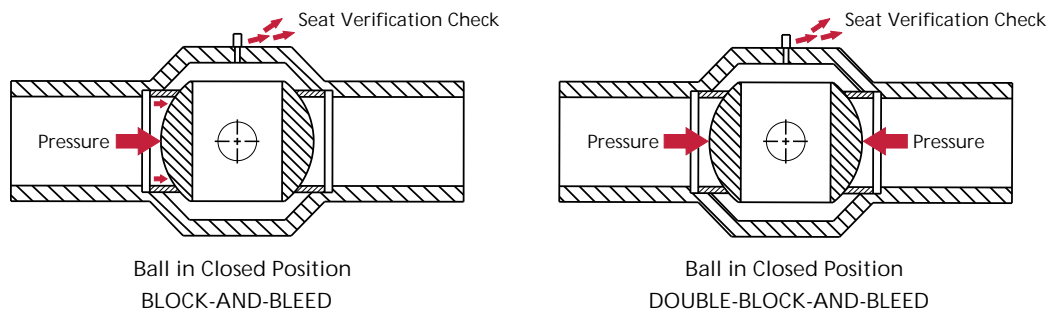
With the ball in a closed position and the pressure applied to one side of the ball, the liquid/gas can be relieved through the drain valve in the body shell. The Block-and-Bleed feature is standard on the B8, B8a and B8.1 valves.

#### Double-Block-and-Bleed

A single valve with two seating surfaces that, in the closed position, provides a seal against pressure from both ends of the valve with a means of venting/bleeding the cavity between the seating surfaces. (ISO 14313/API 6D). The Double-Block-and-Bleed feature is standard on the B8, B8a and B8.1 valves.

#### Double-Isolation-and-Bleed

A single valve with two seating surfaces, each of which, in the closed position, provides a seal against pressure from a single source, with a means of venting/bleeding the cavity between the seating surfaces. (ISO 14313/API 6D). The Double-Isolation-and-Bleed feature is standard on the B8 and B8a with Double Piston Effect seats.



Ball in Closed Position  
BLOCK-AND-BLEED

Ball in Closed Position  
DOUBLE-BLOCK-AND-BLEED

## B8 STANDARD DESIGN FEATURES

### BALL POSITION

The ball open and closed positions are assured by factory positioned stops and provide clear indication of ball position. A valve provided with a manual gear box or actuator assembled to the valve will utilize the actuator stops as primary stops.

### ACTUATION

All CAMERON B8 and B8a valves are manufactured with an adapter plate to enable the fitting of electric, hydraulic or pneumatic actuators. The mounting of actuators on new valves is performed at the manufacturing plant, assuring the integrity of the completed assembly. However, it can be performed in the field if required. A B8 or B8a manual valve can be converted to accept an actuator with assistance from CAMERON.

### COATING PROCESSES

Internal trim parts (balls, seats, stem) are plated with an electroless nickel plating (ENP) as a standard. The process provides corrosion resistance and low wear to the parts during operation.

CAMERON operates its own in-house ENP facility.

Strict quality control procedures for critical process conditions and for plated components maintain plating consistency.

Depending on the type of fluid, CAMERON offers a variety of corrosion resistant and hard overlays which can be applied in the critical sealing areas.

All coating and plating procedures are supported by detailed procedures.

### FIRE SAFE

Standard CAMERON B8 Fully Welded Ball Valves are Fire Safe to API 6FA and API 607. Contact CAMERON for specific information.

### MAINTENANCE

Even if the welded body construction precludes job site disassembly, some maintenance operations can be performed.

A complete replacement of the stem, gland plate and the stem seals can be achieved with the valve installed in the line without pressure.

Secondary sealant injection fittings are standard on the B8 and B8a Welded Body Valve and are to be used to provide emergency seat sealing.

Sealant also can be injected into the stem sealing area through a standard injection fitting to allow for temporary sealing.

Flushing through the relief valve port and drain valve connections is possible provided that there is no pressure in the line.

NOTE: Sealant is not required for the normal operation of the valve.



## B8 OPTIONAL FEATURES

CAMERON offer many optional features on the B8 Welded Body Ball Valve. A summary of those optional features are listed below.

### STEM EXTENSIONS

Stem extensions are easily fitted to CAMERON B8 Fully Welded Body Ball Valves, making the valve suitable for inaccessible areas or buried service.

The drain and secondary sealant injection system are, as a standard, piped to the top of the extension for ease of operation.

When ordering extensions please specify the distance required from the valve center-line to the top of the mounting flange.

### DOUBLE-BLOCK-AND-BLEED (Fully Open Position)

This option is required to give the field operator the ability to test the seats sealing condition.

With the ball in the open position and the pressure in the line, the liquid/gas trapped in the body cavity can be drained/relieved through the drain valve. Once fully drained, the seat sealing can be evaluated.

**ATTENTION:** this is an optional feature; the request must be specified at the bid stage.

### TRANSITION PIECES

CAMERON can weld transition pieces to the valve during the manufacturing process.

Transition pieces can be supplied to CAMERON by the customer or provided by CAMERON to meet customer requirements.

Qualified Weld Procedures are used to weld transition pieces to the valve end connection(s).

### FULLY WELDED BONNET

If requested the CAMERON B8 Fully Welded Body Ball Valve can be supplied with the fully welded bonnet. This design further reduces possible leak paths.

### METAL-TO-METAL SEATS

The sealing surfaces between the seat and ball can be completely metallic. This trim is recommended whenever the standard seating is not suitable because of the unfavorable combination of pressure, temperature, chemical composition of the fluid, or when solids or abrasive particles are present.

Metal-to-Metal seats utilize a coating on the ball and seats that is applied by means of "High Velocity Oxygen Fueled" (HVOF) using Tungsten Carbide or Stellite powders.

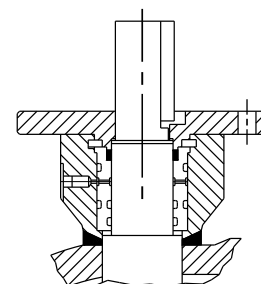
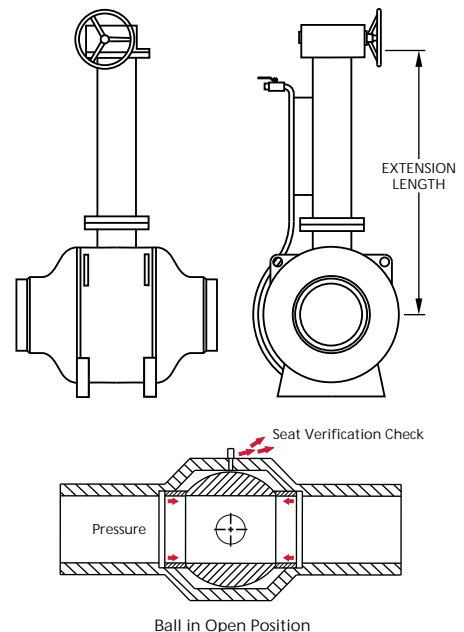
The most suitable materials are selected based on the specific service the valve is intended for.

CAMERON operates its own in-house HVOF process for the supply of quality Metal-to-Metal seated valves.

### ADDITIONAL OPTIONAL FEATURES

The following additional options are also offered on the CAMERON B8 Fully Welded Body Ball Valve:

- Self Relieving Seats (B8 and B8a)
- Soft Seats (polymer inserts) for B8 and B8a
- Spring energized gaskets, made of PTFE with various grades of fillers, for stem and seats (Lip seals for DPE seats)
- Stainless or Inconel overlay in critical sealing areas
- Anti-Static Devices
- Cavity Relief Valve for overpressure due to liquid thermal expansion on the B8.1





## B8, B8a AND B8.1 FULLY WELDED BODY BALL VALVE SPECIAL APPLICATIONS

### SUBSEA SERVICE

A valve specified for subsea service accounts for the critical need for corrosion protection of both internal and external surfaces, as well as providing a rugged and durable product designed to withstand the harsh service conditions expected in subsea service.



### MODULE READY FOR SUBSEA INSTALLATION

CAMERON has the capability to provide a valve package including the valve, actuator and transition pieces fully assembled, tested and inspected.

### SOUR GAS SERVICE

A careful selection of materials is provided: carbon steel with low sulfur content, weld metal and HAZ (Heat Affected Zone) hardness within ISO 15156/NACE MR0175 limits, UT and LP Non-Destructive Examination and appropriate selection of seal materials.



## B8.1 FULLY WELDED BODY BALL VALVE MATERIAL SPECIFICATION

### MATERIALS SELECTION

The CAMERON B8.1 Fully Welded Body Ball Valve has been designed for use with various combinations of materials which are selected dependent on the customer's service conditions.

The following is a typical listing of materials for valves in ASME Class 150 - 2500 for standard applications.

### PRESSURE RETAINING PARTS

Body	A350 LF2, A182 F316L, A182 F51
Stem/Trunnion	AISI 4140, A564 Gr. 630 (17-4 PH), Alloy 718, Duplex and Super Duplex
Capscrews	A193 B7, A193 B7M, A320 L7, A320 L7M

### INTERNAL PARTS

Ball	A350 LF2, A105, AISI 4140, A182 F316, 17-4 PH, Duplex and Super Duplex, Alloy 625, Alloy 718
Seats	A350 LF2, A105, AISI 4140, A182 F316, 17-4 PH, Duplex and Super Duplex, Alloy 625, Alloy 718
Springs	AISI 302, Inconel (different grades), Elgiloy

### SEALING MATERIALS

Stem Gasket	NBR (Nitrile)
	FKM (Viton, various grades available)
	HNBR (Hydrogenated Nitrile)
Seat/Body Gasket	NBR (Nitrile)
	FKM (Viton, various grades available)
	HNBR (Hydrogenated Nitrile)
Seat/Ball Gasket	PTFE
	Nylon
	PEEK
	PCTFE

### PLATING/COATING

25 microns (0.001 inch)	ENP (Electroless Nickel Plating)
75 microns (0.003 inch)	ENP (Electroless Nickel Plating)
120 microns (0.0045 inch)	Tungsten Carbide Coating

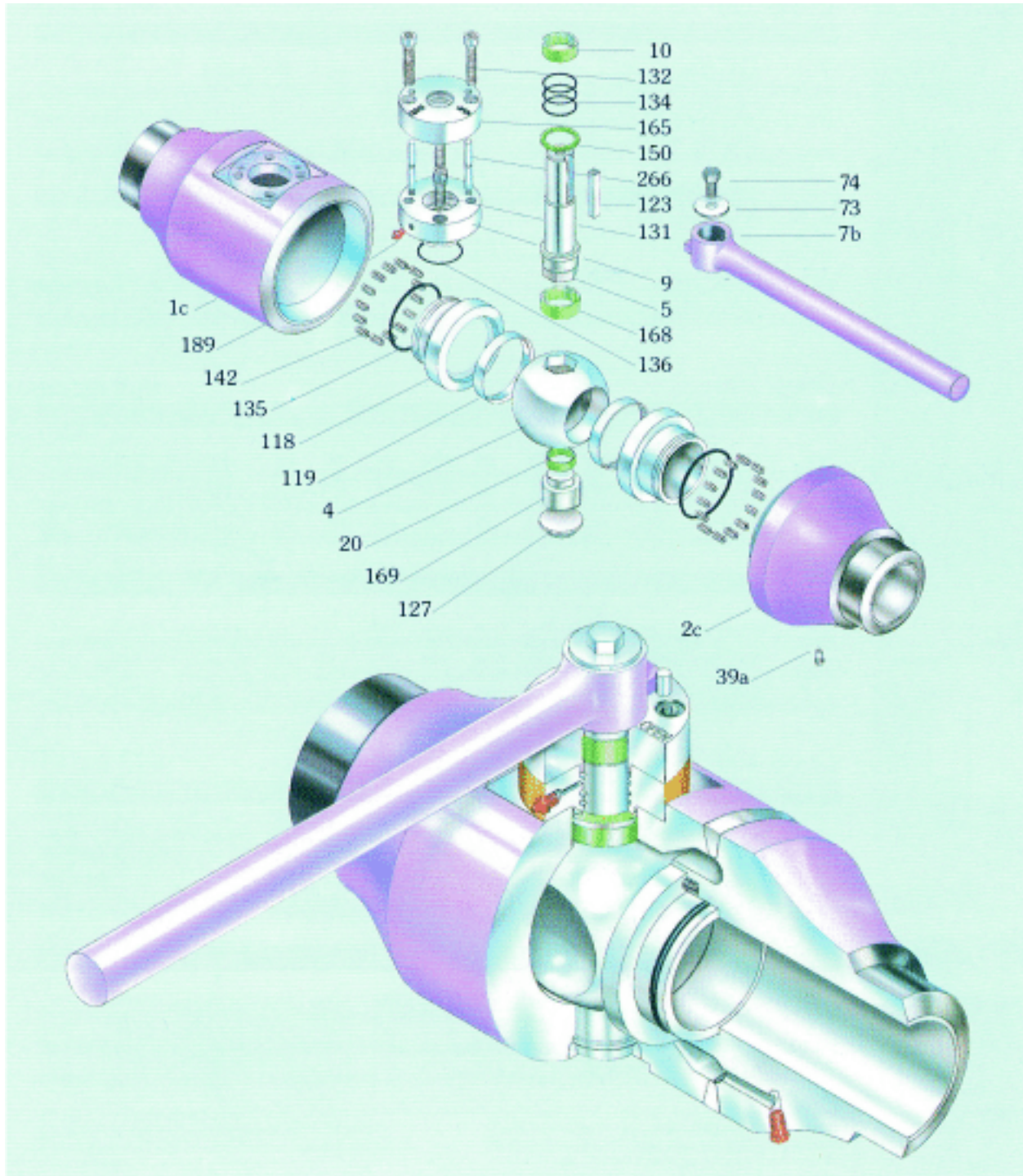
### ALLOY OVERLAY

Seal Area	AISI 316L, Alloy 625
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### SOUR SERVICE (NACE) REQUIREMENTS

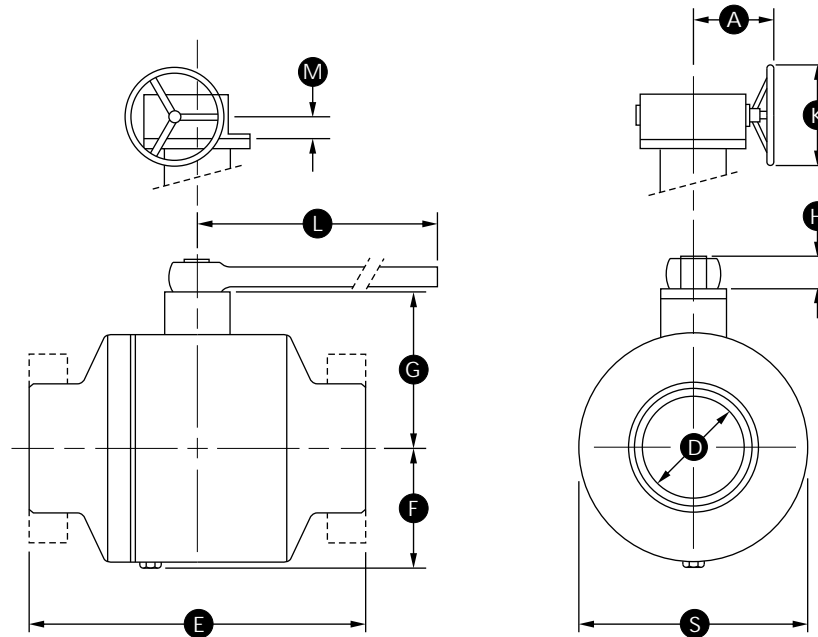
CAMERON B8.1 Fully Welded Body Ball Valves can be supplied in accordance with the material requirements of ISO 15156/NACE MR0175.	
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## B8.1 FULLY WELDED BODY BALL VALVE VALVE ASSEMBLY & CROSS SECTION



Item	Description	39a	Drain	136	Gland Plate O-Ring
1c	Body	118	Seat Ring	142	Seat Spring
2c	Closure	119	Seat Insert	150	Upper Thrust Washer
4	Ball	123	Stem Key	165	Bearing Housing
5	Stem	127	Lower Trunnion Plate	168	Stem Bearing
7b	Wrench	131	Gland Plate Capscrew	169	Lower Trunnion
9	Top Cover	132	Adapter Plate Capscrew	189	Stem Grease Fitting
10	Gland Bushing	134	Stem O-Ring	266	Stop Pin
20	Trunnion Bearing	135	Seat Gasket O-Ring		

## B8.1 FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 150/300



### ASME CLASS 150

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
2 (50)	2 (51)	8 1/2 (216)	7 (178)	7 1/2 (191)	3 1/4 (83)	4 1/8 (105)	6 1/4 (160)	1 3/4 (44)	12 (305)	-	-	-	37 (17)	49 (22)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	11 1/8 (283)	8 (203)	8 1/2 (216)	3 1/4 (83)	4 1/8 (105)	6 1/4 (160)	1 3/4 (44)	12 (305)	-	-	-	44 (20)	55 (25)
3 (80)	3 (76)	11 1/8 (283)	8 (203)	8 1/2 (216)	4 5/8 (117)	5 1/4 (133)	8 5/8 (219)	2 (51)	17 3/4 (451)	-	-	-	62 (28)	77 (35)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	12 (305)	9 (229)	9 1/2 (241)	4 5/8 (117)	5 1/4 (133)	8 5/8 (219)	2 (51)	17 3/4 (451)	-	-	-	73 (33)	90 (41)
4 (100)	4 (102)	12 (305)	9 (229)	9 1/2 (241)	5 1/2 (140)	6 1/4 (159)	9 5/8 (244)	2 3/8 (60)	36 (914)	-	-	-	110 (50)	139 (63)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	18 (457)	15 1/2 (394)	16 (406)	5 1/2 (140)	6 1/4 (159)	9 5/8 (244)	2 3/8 (60)	36 (914)	-	-	-	132 (60)	165 (75)

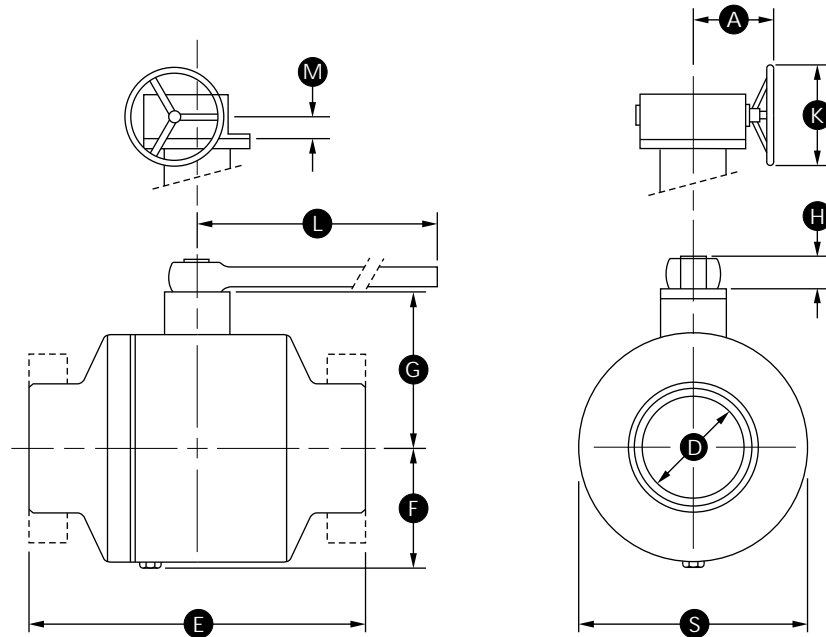
### ASME CLASS 300

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
2 (50)	2 (51)	8 1/2 (216)	8 1/2 (216)	9 1/8 (232)	3 1/4 (83)	4 1/8 (105)	6 3/8 (162)	1 3/4 (44)	17 3/4 (451)	-	-	-	42 (19)	53 (24)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	11 1/8 (283)	11 1/8 (283)	11 3/4 (298)	3 1/4 (83)	4 1/8 (105)	6 3/8 (162)	1 3/4 (44)	17 3/4 (451)	-	-	-	53 (24)	66 (30)
3 (80)	3 (76)	11 1/8 (283)	11 1/8 (283)	11 3/4 (298)	4 5/8 (117)	5 1/4 (133)	8 3/4 (222)	2 (51)	36 (914)	-	-	-	75 (34)	93 (42)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	12 (305)	12 (305)	12 5/8 (321)	4 5/8 (117)	5 1/4 (133)	8 3/4 (222)	2 (51)	36 (914)	-	-	-	99 (45)	123 (56)
4 (100)	4 (102)	12 (305)	12 (305)	12 5/8 (321)	5 1/2 (140)	6 1/4 (159)	9 5/8 (244)	2 3/8 (60)	36 (914)	-	-	-	150 (68)	187 (85)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	18 (457)	18 (457)	16 1/2 (419)	5 1/2 (140)	6 1/4 (159)	9 5/8 (244)	2 3/8 (60)	36 (914)	-	-	-	194 (88)	243 (110)

Flanges in accordance with ASME B16.5  
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313/API 6D  
Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

## B8.1 FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 400/600



### ASME CLASS 400

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	lb. (kg) RF/RTJ
2 (50)	2 (51)	*	*	*	3 1/4 (83)	4 1/8 (105)	6 3/8 (162)	1 3/4 (44)	17 3/4 (451)	-	-	-	44 (20)	55 (25)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	*	*	*	3 1/4 (83)	4 1/8 (105)	6 3/8 (162)	1 3/4 (44)	17 3/4 (451)	-	-	-	55 (25)	71 (32)
3 (80)	3 (76)	*	*	*	4 5/8 (117)	5 1/4 (133)	8 3/4 (222)	2 (51)	36 (914)	-	-	-	93 (42)	117 (53)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	16 (406)	16 (406)	16 1/8 (410)	4 5/8 (117)	5 1/4 (133)	8 3/4 (222)	2 (51)	36 (914)	-	-	-	106 (48)	132 (60)
4 (100)	4 (102)	16 (406)	16 (406)	16 1/8 (410)	5 5/8 (143)	6 1/4 (159)	9 3/4 (248)	2 3/8 (60)	-	*	*	*	168 (76)	209 (95)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	19 1/2 (495)	19 1/2 (495)	19 5/8 (498)	5 5/8 (143)	6 1/4 (159)	9 3/4 (248)	2 3/8 (60)	-	*	*	*	212 (96)	265 (120)

### ASME CLASS 600

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	lb. (kg) RF/RTJ
2 (50)	2 (51)	11 1/2 (292)	11 1/2 (292)	11 5/8 (295)	3 3/8 (86)	4 1/8 (105)	6 1/2 (165)	1 3/4 (44)	24 (610)	-	-	-	46 (21)	60 (27)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	14 (356)	14 (356)	14 1/8 (359)	3 3/8 (86)	4 1/8 (105)	6 1/2 (165)	1 3/4 (44)	24 (610)	-	-	-	64 (29)	79 (36)
3 (80)	3 (76)	14 (356)	14 (356)	14 1/8 (359)	4 3/4 (121)	6 1/8 (156)	8 7/8 (225)	2 3/8 (60)	-	*	*	*	108 (49)	137 (62)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	17 (432)	17 (432)	17 1/8 (435)	4 3/4 (121)	6 1/8 (156)	8 7/8 (225)	2 3/8 (60)	-	*	*	*	150 (68)	187 (85)
4 (100)	4 (102)	17 (432)	17 (432)	17 1/8 (435)	5 3/4 (146)	7 1/2 (191)	9 7/8 (251)	2 3/8 (60)	-	*	*	*	209 (95)	262 (119)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	22 (559)	22 (559)	22 1/8 (562)	5 3/4 (146)	7 1/2 (191)	9 7/8 (251)	2 3/8 (60)	-	*	*	*	247 (112)	309 (140)

\* Dimension on request

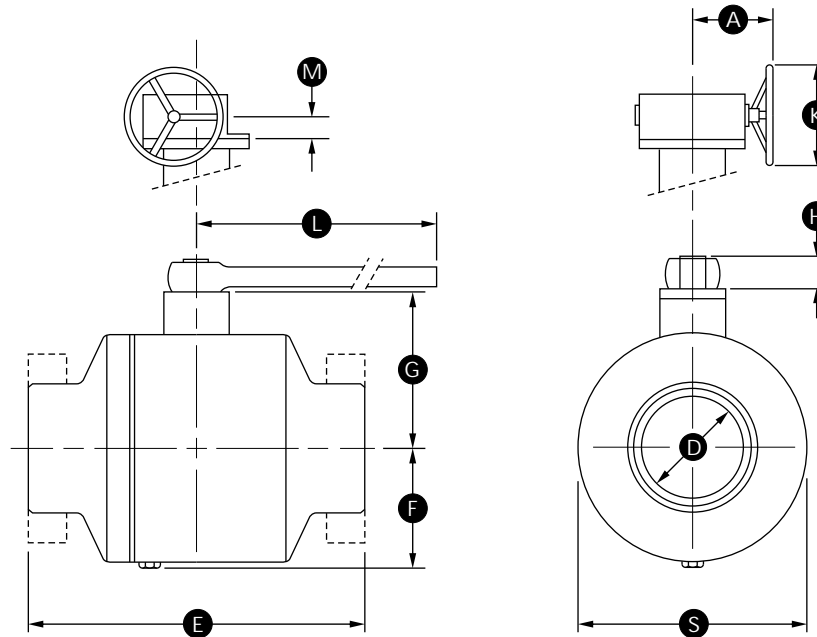
Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313/API 6D

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

## B8.1 FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 900/1500



### ASME CLASS 900

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
2 (50)	2 (51)	14 1/2 (368)	14 1/2 (368)	14 5/8 (371)	3 1/2 (89)	4 5/8 (117)	6 7/8 (175)	2 3/8 (60)	24 (610)	-	-	-	88 (40)	110 (50)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	15 (381)	15 (381)	15 1/8 (384)	3 1/2 (89)	4 5/8 (117)	6 7/8 (175)	2 3/8 (60)	24 (610)	-	-	-	106 (48)	134 (61)
3 (80)	3 (76)	15 (381)	15 (381)	15 1/8 (384)	4 7/8 (124)	6 1/8 (156)	9 3/8 (238)	2 3/8 (60)	-	*	*	*	134 (61)	170 (77)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	18 (457)	18 (457)	18 1/8 (460)	4 7/8 (124)	6 1/8 (156)	9 3/8 (238)	2 3/8 (60)	-	*	*	*	170 (77)	214 (97)
4 (100)	4 (102)	18 (457)	18 (457)	18 1/8 (460)	6 (152)	7 1/2 (191)	10 3/8 (264)	2 3/8 (60)	-	*	*	*	236 (107)	295 (134)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	24 (610)	24 (610)	24 1/8 (613)	6 (152)	7 1/2 (191)	10 3/8 (264)	2 3/8 (60)	-	*	*	*	335 (152)	419 (190)

### ASME CLASS 1500

SIZE in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	
		WE	RF	RTJ									WE	RF/RTJ
2 (50)	2 (51)	14 1/2 (368)	14 1/2 (368)	14 5/8 (371)	4 1/4 (108)	4 5/8 (117)	8 3/4 (222)	2 3/8 (60)	-	*	*	*	99 (45)	126 (57)
3 x 2 x 3 (80 x 50 x 80)	2 (51)	18 1/2 (470)	18 1/2 (470)	18 5/8 (473)	4 1/4 (108)	4 5/8 (117)	8 3/4 (222)	2 3/8 (60)	-	*	*	*	128 (58)	161 (73)
3 (80)	3 (76)	18 1/2 (470)	18 1/2 (470)	18 5/8 (473)	6 1/8 (156)	6 1/8 (156)	11 7/8 (302)	2 3/8 (60)	-	*	*	*	196 (89)	247 (112)
4 x 3 x 4 (100 x 80 x 100)	3 (76)	21 1/2 (546)	21 1/2 (546)	21 5/8 (549)	6 1/8 (156)	6 1/8 (156)	11 7/8 (302)	2 3/8 (60)	-	*	*	*	229 (104)	287 (130)
4 (100)	4 (102)	21 1/2 (546)	21 1/2 (546)	21 5/8 (549)	7 3/8 (187)	7 1/2 (191)	13 1/4 (337)	2 3/8 (60)	-	*	*	*	335 (152)	419 (190)
6 x 4 x 6 (150 x 100 x 150)	4 (102)	27 3/4 (705)	27 3/4 (705)	28 (711)	7 3/8 (187)	7 1/2 (191)	13 1/4 (337)	2 3/8 (60)	-	*	*	*	511 (232)	639 (290)

\* Dimension on request

Flanges in accordance with ASME B16.5

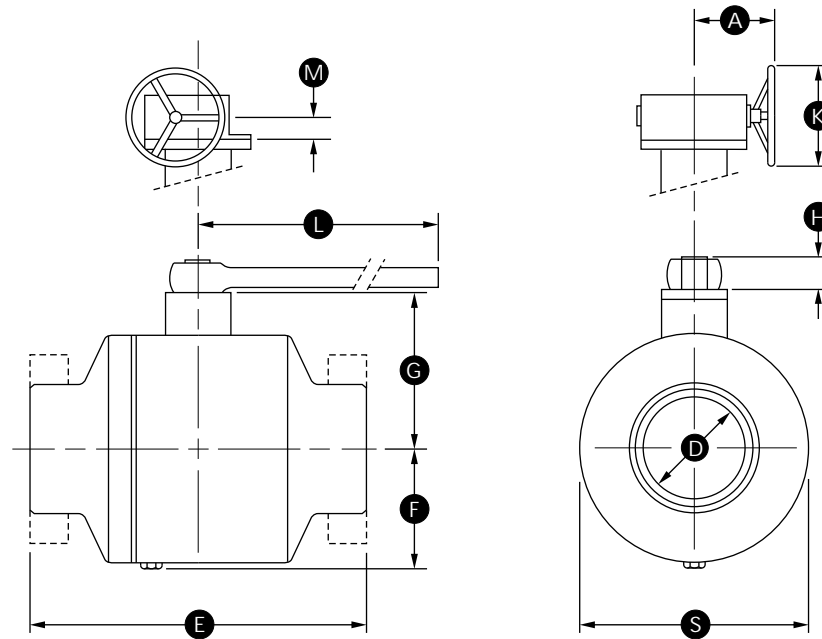
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313/API 6D

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D



## B8.1 FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 2500



### ASME CLASS 2500

SIZE	in. (mm)	D	E			F	G	S	H	L	A	K	M	WEIGHT	lb. (kg)
			WE	RF	RTJ										
2	1 3/4 (44)	17 3/4 (451)	17 3/4 (451)	17 7/8 (454)	4 1/4 (110)	6 1/4 (160)	7 7/8 (200)	2 1/2 (65)	36 (915)	-	-	-	**	**	
3	2 1/2 (64)	22 3/4 (578)	22 3/4 (578)	23 (584)	5 1/2 (140)	7 1/8 (181)	9 7/8 (250)	2 1/2 (65)	-	*	*	*	**	**	
4	3 1/2 (89)	26 1/2 (673)	26 1/2 (673)	26 7/8 (683)	7 7/8 (200)	10 3/8 (265)	14 1/2 (370)	3 (75)	-	*	*	*	**	**	
6	5 1/8 (131)	36 (914)	36 (914)	36 1/2 (927)	9 1/4 (235)	11 3/8 (290)	17 (430)	4 3/4 (120)	-	*	*	*	**	**	

\* Dimension on request

\*\* For these Data ask to CAMERON Facility

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313/API 6D

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D



## B8 AND B8a FULLY WELDED BODY BALL VALVE MATERIAL SPECIFICATION

### MATERIALS SELECTION

The CAMERON B8 and B8a Fully Welded Body Ball Valve has been designed for use with various combinations of materials which are selected dependent on the customer's service conditions. The following is a typical listing of materials for valves in ASME Class 150 - 2500 for standard applications.

### PRESSURE RETAINING PARTS

Body	A350 LF2, A182 F51, A350 LF2 fully clad with Alloy 625
Stem/Trunnion	AISI 4140, A564 Gr. 630 (17-4 PH), Alloy 718, Duplex and Super Duplex
Capscrews	A193 B7, A193 B7M, A320 L7, A320 L7M

### INTERNAL PARTS

Ball	A350 LF2, A105, A694 F65, A182 F316, 17-4 PH, Duplex and Super Duplex, Alloy 625, Alloy 718, A350 LF2/A694 F65 fully clad with Alloy 625
Seats	A350 LF2, A105, A694 F65, A182 F316, 17-4 PH, Duplex and Super Duplex, Alloy 625, Alloy 718
Springs	AISI 302, Inconel (different grades), Elgiloy

### SEALING MATERIALS

Stem Gasket	NBR (Nitrile) FKM (Viton, various grades available) HNBR (Hydrogenated Nitrile)
Seats/Body Gasket	NBR (Nitrile) FKM (Viton, various grades available) HNBR (Hydrogenated Nitrile)
Seats/Ball Gasket	
For ASME Class 150-900, Elastomer O-Ring is used. The material selections are:	
	NBR (Nitrile) FKM (Viton, various grades available) HNBR (Hydrogenated Nitrile)
For ASME Class 1500-2500, Plastic O-Ring or insert is used, material selection:	
	Nylon PEEK PCTFE

### PLATING/COATING

25 microns (0.001 inch)	ENP Electroless Nickel Plating
75 microns (0.003 inch)	ENP Electroless Nickel Plating
120 microns (0.0045 inch)	Tungsten Carbide Coating

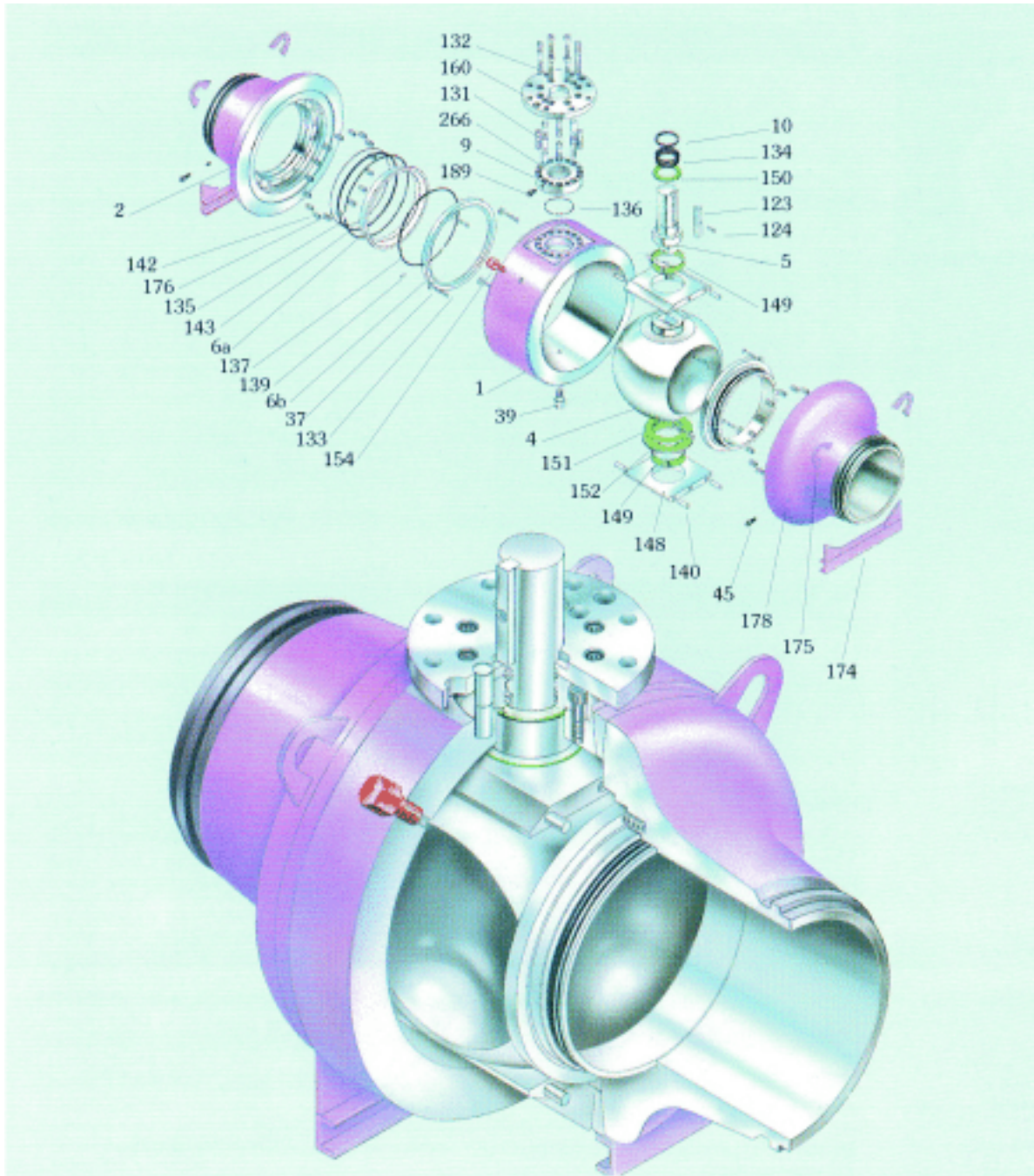
### ALLOY OVERLAY

Seal Area	AISI 316L, Alloy 625
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### SOUR SERVICE (NACE) REQUIREMENTS

CAMERON B8 and B8a Fully Welded Body Ball Valves can be supplied in accordance with the material requirements of ISO 15156/NACE MR0175.	
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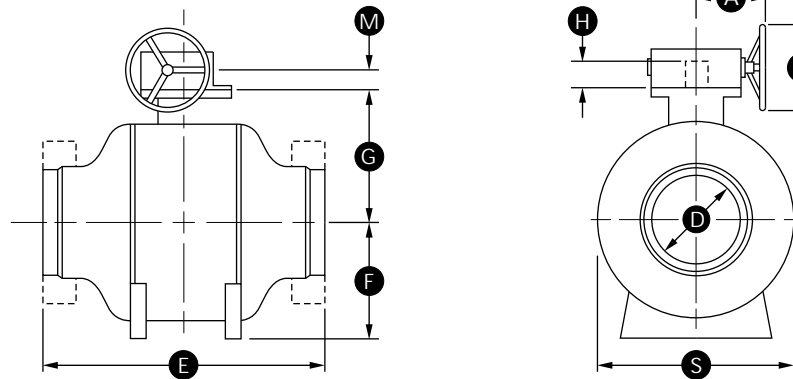
## B8 FULLY WELDED BODY BALL VALVE VALVE ASSEMBLY & CROSS SECTION



Item	Description	123	Stem Key	148	Bearing Retainer
1	Body	124	Stem Key Capscrew	149	Bearing
2	Closure	131	Gland Plate Capscrew	150	Upper Thrust Washer
4	Ball	132	Adapter Plate Capscrew	151	Lower Thrust Washer
5	Stem	133	Puller Bushing Capscrew	152	Spacer
6 b	Outer Seat Ring	134	Stem O-Ring	154	Relief Valve
6 a	Inner Seat Ring	135	Seat Gasket O-Ring	160	Adapter Plate
9	Top Cover	136	Gland Plate O-Ring	174	Support Legs
10	Gland Bushing	137	Seal O-Ring	175	Lifting Lugs
37	Seat Stop Washer	139	Seat Spring Pin	176	Grease U-Gasket
39	Drain Valve	140	Bearing Retainer Pin	178	Check Valve
45	Seat Grease Fitting	142	Cylindrical Spring	189	Stem Grease Fitting
		143	Seat Lock Ring	266	Stop Pin

# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 150



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 150

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	18 (457)	15 1/2 (394)	16 (406)	11 7/8 (302)	8 1/2 (216)	11 7/8 (302)	2 3/4 (70)	*	*	*	397 (180)	507 (230)
8 (200)	8 (203)	20 1/2 (521)	18 (457)	18 1/2 (470)	13 3/8 (340)	9 7/8 (251)	15 5/8 (397)	2 3/4 (70)	*	*	*	441 (200)	551 (250)
10 (250)	10 (254)	22 (559)	21 (533)	21 1/2 (546)	14 7/8 (378)	11 5/8 (295)	18 1/4 (464)	2 3/4 (70)	*	*	*	573 (260)	705 (320)
12 (300)	12 (305)	25 (635)	24 (610)	24 1/2 (622)	16 3/8 (416)	13 1/2 (343)	21 5/8 (549)	2 3/4 (70)	*	*	*	882 (400)	1080 (490)
14 (350)	13 1/4 (337)	30 (762)	27 (686)	27 1/2 (699)	18 3/8 (467)	14 5/8 (371)	23 (584)	3 3/4 (95)	*	*	*	1301 (590)	1587 (720)
16 (400)	15 1/4 (387)	33 (838)	30 (762)	30 1/2 (775)	19 7/8 (505)	16 1/4 (413)	26 3/8 (670)	3 3/4 (95)	*	*	*	1962 (890)	2381 (1080)
18 (450)	17 1/4 (438)	36 (914)	34 (864)	34 1/2 (876)	21 1/2 (546)	18 (457)	29 7/8 (759)	4 1/2 (114)	*	*	*	2690 (1220)	3219 (1460)
20 (500)	19 1/4 (489)	39 (991)	36 (914)	36 1/2 (927)	23 1/8 (587)	19 3/8 (492)	32 7/8 (835)	4 1/2 (114)	*	*	*	3439 (1560)	4056 (1840)
22 (550)	21 1/4 (540)	*	*	*	24 7/8 (632)	21 1/8 (537)	36 1/4 (921)	4 1/2 (114)	*	*	*	4541 (2060)	5379 (2440)
24 (600)	23 1/4 (591)	45 (1143)	42 (1067)	42 1/2 (1080)	26 3/8 (670)	22 1/2 (572)	38 7/8 (987)	7 1/8 (181)	*	*	*	5710 (2590)	6746 (3060)
26 (650)	25 (635)	49 (1245)	45 (1143)	*	28 1/4 (718)	24 1/2 (622)	41 3/4 (1060)	7 1/8 (181)	*	*	*	7033 (3190)	8245 (3740)
28 (700)	27 (686)	53 (1346)	49 (1245)	*	29 5/8 (752)	25 7/8 (657)	44 3/4 (1137)	7 1/8 (181)	*	*	*	8488 (3850)	9943 (4510)
30 (750)	29 (737)	55 (1397)	51 (1295)	*	31 3/4 (806)	27 1/2 (699)	48 5/8 (1235)	7 1/8 (181)	*	*	*	9810 (4450)	11464 (5200)
32 (800)	30 3/4 (781)	60 (1524)	54 (1372)	*	33 1/4 (845)	29 (737)	51 (1295)	8 1/8 (206)	*	*	*	11684 (5300)	13426 (6090)
34 (850)	32 3/4 (832)	64 (1626)	58 (1473)	*	34 3/8 (873)	30 7/8 (784)	53 3/8 (1356)	8 1/8 (206)	*	*	*	13933 (6320)	15917 (7220)
36 (900)	34 1/2 (876)	68 (1727)	60 (1524)	*	35 3/4 (908)	32 3/8 (822)	56 3/4 (1441)	8 1/8 (206)	*	*	*	16138 (7320)	18298 (8300)
40 (1000)	38 1/2 (978)	*	*	*	39 3/8 (1000)	35 5/8 (905)	63 7/8 (1622)	8 1/8 (206)	*	*	*	22134 (10040)	24802 (11250)
42 (1050)	40 1/4 (1022)	*	*	*	40 3/4 (1035)	38 1/8 (968)	67 3/8 (1711)	8 1/8 (206)	*	*	*	25375 (11510)	28241 (12810)
46 (1150)	44 (1118)	*	*	*	44 5/8 (1133)	42 1/2 (1080)	74 1/2 (1892)	8 1/8 (206)	*	*	*	32518 (14750)	35692 (16190)
48 (1200)	46 (1168)	*	*	*	46 3/8 (1178)	44 3/8 (1127)	77 1/2 (1969)	8 1/8 (206)	*	*	*	36508 (16560)	39815 (18060)
56 (1400)	55 (1397)	*	*	*	52 3/4 (1340)	50 3/8 (1280)	89 3/4 (2280)	9 5/8 (244)	-	-	-	54652 (24790)	58047 (26330)
60 (1500)	57 1/2 (1461)	*	*	*	56 3/8 (1432)	55 1/8 (1400)	96 3/8 (2448)	9 5/8 (244)	-	-	-	65013 (29490)	68144 (30910)

\* Dimension on request

Flanges in accordance with ASME B16.5

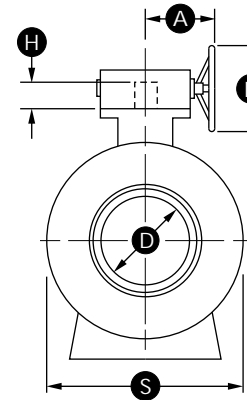
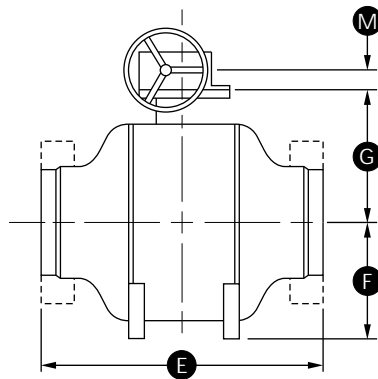
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 300



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 300

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	18 (457)	18 (457)	16 1/2 (419)	11 7/8 (302)	8 1/2 (216)	12 (305)	2 3/4 (70)	*	*	*	419 (190)	529 (240)
8 (200)	8 (203)	20 1/2 (521)	19 3/4 (502)	20 3/8 (518)	13 3/8 (340)	9 7/8 (251)	15 7/8 (403)	2 3/4 (70)	*	*	*	463 (210)	573 (260)
10 (250)	10 (254)	22 (559)	22 3/8 (568)	23 (584)	14 7/8 (378)	11 5/8 (295)	18 3/8 (467)	3 3/4 (95)	*	*	*	617 (280)	750 (340)
12 (300)	12 (305)	25 (635)	25 1/2 (648)	26 1/8 (664)	16 3/8 (416)	13 1/2 (343)	21 3/4 (552)	3 3/4 (95)	*	*	*	926 (420)	1124 (510)
14 (350)	13 1/4 (337)	30 (762)	30 (762)	30 5/8 (778)	18 3/8 (467)	14 5/8 (371)	23 1/4 (591)	4 1/2 (114)	*	*	*	1367 (620)	1675 (760)
16 (400)	15 1/4 (387)	33 (838)	33 (838)	33 5/8 (854)	19 7/8 (505)	16 1/4 (413)	26 3/4 (679)	4 1/2 (114)	*	*	*	2072 (940)	2491 (1130)
18 (450)	17 1/4 (438)	36 (914)	36 (914)	36 5/8 (930)	21 1/2 (546)	18 (457)	30 1/4 (768)	4 1/2 (114)	*	*	*	2822 (1280)	3373 (1530)
20 (500)	19 1/4 (489)	39 (991)	39 (991)	39 3/4 (1010)	23 1/8 (587)	16 7/8 (429)	33 1/4 (845)	7 1/8 (181)	*	*	*	3616 (1640)	4277 (1940)
22 (550)	21 1/4 (540)	43 (1092)	43 (1092)	43 7/8 (1114)	24 7/8 (632)	21 1/8 (537)	36 5/8 (930)	7 1/8 (181)	*	*	*	4784 (2170)	5644 (2560)
24 (600)	23 1/4 (591)	45 (1143)	45 (1143)	45 7/8 (1165)	26 3/8 (670)	22 1/2 (572)	39 1/4 (997)	7 1/8 (181)	*	*	*	6019 (2730)	7099 (3220)
26 (650)	25 (635)	49 (1245)	49 (1245)	50 (1270)	28 1/4 (718)	24 1/2 (622)	42 1/8 (1070)	8 1/8 (206)	*	*	*	7385 (3350)	8686 (3940)
28 (700)	27 (686)	53 (1346)	53 (1346)	54 (1372)	29 5/8 (752)	25 7/8 (657)	45 1/4 (1149)	8 1/8 (206)	*	*	*	8929 (4050)	10450 (4740)
30 (750)	29 (737)	55 (1397)	55 (1397)	56 (1422)	31 3/4 (806)	27 1/2 (699)	49 1/8 (1248)	8 1/8 (206)	*	*	*	10317 (4680)	12059 (5470)
32 (800)	30 3/4 (781)	60 (1524)	60 (1524)	61 1/8 (1553)	33 1/4 (845)	29 (737)	51 1/2 (1308)	8 1/8 (206)	*	*	*	12280 (5570)	14109 (6400)
34 (850)	32 3/4 (832)	64 (1626)	64 (1626)	65 1/8 (1654)	34 3/8 (873)	30 7/8 (784)	53 7/8 (1368)	8 1/8 (206)	*	*	*	14660 (6650)	16733 (7590)
36 (900)	34 1/2 (876)	68 (1727)	68 (1727)	69 1/8 (1756)	35 3/4 (908)	32 3/8 (822)	57 3/8 (1457)	8 1/8 (206)	*	*	*	16975 (7700)	19246 (8730)
40 (1000)	38 1/2 (978)	*	*	*	39 3/8 (1000)	35 5/8 (905)	64 1/2 (1638)	8 1/8 (206)	*	*	*	23280 (10560)	26080 (11830)
42 (1050)	40 1/4 (1022)	*	*	*	40 3/4 (1035)	38 1/8 (968)	68 1/8 (1730)	9 5/8 (244)	*	*	*	26698 (12110)	29718 (13480)
46 (1150)	44 (1118)	*	*	*	44 5/8 (1133)	42 1/2 (1080)	75 1/4 (1911)	9 5/8 (244)	*	*	*	34193 (15510)	37544 (17030)
48 (1200)	46 (1168)	*	*	*	46 3/8 (1178)	44 3/8 (1127)	78 1/4 (1988)	9 5/8 (244)	*	*	*	38404 (17420)	41887 (19000)
56 (1400)	55 (1397)	*	*	*	52 3/4 (1340)	50 3/8 (1280)	90 3/4 (2305)	9 5/8 (244)	-	-	-	57496 (26080)	61067 (27700)
60 (1500)	57 1/2 (1461)	*	*	*	56 3/8 (1432)	55 1/8 (1400)	97 1/2 (2477)	9 5/8 (244)	-	-	-	68386 (31020)	71671 (32510)

\* Dimension on request

Flanges in accordance with ASME B16.5

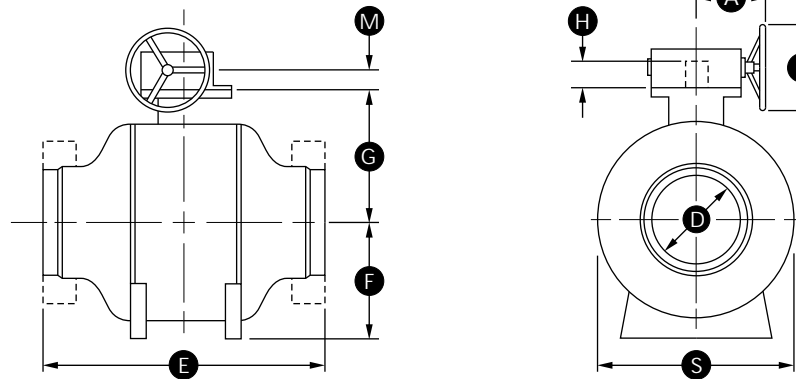
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 400



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 400

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	19 1/2 (495)	19 1/2 (495)	19 5/8 (498)	12 1/8 (308)	8 1/2 (216)	12 1/8 (308)	2 3/4 (70)	*	*	*	485 (220)	617 (280)
8 (200)	8 (203)	23 1/2 (597)	23 1/2 (597)	23 5/8 (600)	13 5/8 (346)	9 7/8 (251)	16 (406)	3 3/4 (95)	*	*	*	529 (240)	661 (300)
10 (250)	10 (254)	26 1/2 (673)	26 1/2 (673)	26 5/8 (676)	15 1/4 (387)	11 5/8 (295)	18 5/8 (473)	3 3/4 (95)	*	*	*	705 (320)	860 (390)
12 (300)	12 (305)	30 (762)	30 (762)	30 1/8 (765)	16 3/4 (425)	13 1/2 (343)	22 (559)	3 3/4 (95)	*	*	*	1058 (480)	1301 (590)
14 (350)	13 1/4 (337)	32 1/2 (826)	32 1/2 (826)	32 5/8 (829)	18 3/4 (476)	14 5/8 (371)	23 1/2 (597)	4 1/2 (114)	*	*	*	1587 (720)	1918 (870)
16 (400)	15 1/4 (387)	35 1/2 (902)	35 1/2 (902)	35 5/8 (905)	20 3/8 (518)	16 1/4 (413)	27 (686)	4 1/2 (114)	*	*	*	2381 (1080)	2866 (1300)
18 (450)	17 1/4 (438)	38 1/2 (978)	38 1/2 (978)	38 5/8 (981)	21 7/8 (556)	18 (457)	30 1/2 (775)	7 1/8 (181)	*	*	*	3241 (1470)	3880 (1760)
20 (500)	19 1/4 (489)	41 1/2 (1054)	41 1/2 (1054)	41 3/4 (1060)	23 1/2 (597)	19 3/8 (492)	33 1/2 (851)	7 1/8 (181)	*	*	*	4145 (1880)	4894 (2220)
22 (550)	21 1/4 (540)	45 (1143)	45 (1143)	45 3/8 (1153)	25 3/8 (645)	21 1/8 (537)	37 (940)	7 1/8 (181)	*	*	*	5489 (2490)	6481 (2940)
24 (600)	23 1/4 (591)	48 1/2 (1232)	48 1/2 (1232)	48 7/8 (1241)	26 7/8 (683)	22 1/2 (572)	39 5/8 (1006)	8 1/8 (206)	*	*	*	6900 (3130)	8135 (3690)
26 (650)	25 (635)	51 1/2 (1308)	51 1/2 (1308)	52 (1321)	28 7/8 (733)	24 1/2 (622)	42 1/2 (1080)	8 1/8 (206)	*	*	*	8488 (3850)	9965 (4520)
28 (700)	27 (686)	55 (1397)	55 (1397)	55 1/2 (1410)	30 1/4 (768)	25 7/8 (657)	45 5/8 (1159)	8 1/8 (206)	*	*	*	10251 (4650)	12015 (5450)
30 (750)	29 (737)	60 (1524)	60 (1524)	60 1/2 (1537)	32 3/8 (822)	27 1/2 (699)	49 5/8 (1260)	8 1/8 (206)	*	*	*	11861 (5380)	13845 (6280)
32 (800)	30 3/4 (781)	65 (1651)	65 (1651)	65 5/8 (1667)	33 7/8 (860)	29 (737)	52 (1321)	8 1/8 (206)	*	*	*	14109 (6400)	16204 (7350)
34 (850)	32 3/4 (832)	70 (1778)	70 (1778)	70 5/8 (1794)	35 1/8 (892)	30 7/8 (784)	54 1/2 (1384)	8 1/8 (206)	*	*	*	16843 (7640)	19224 (8720)
36 (900)	34 1/2 (876)	74 (1880)	74 (1880)	74 5/8 (1895)	36 1/2 (927)	32 3/8 (822)	58 (1473)	8 1/8 (206)	*	*	*	19489 (8840)	22112 (10030)
40 (1000)	38 1/2 (978)	*	*	*	40 1/8 (1019)	35 5/8 (905)	65 1/8 (1654)	9 5/8 (244)	*	*	*	26742 (12130)	29938 (13580)
42 (1050)	40 1/4 (1022)	*	*	*	41 1/2 (1054)	38 1/8 (968)	68 3/4 (1746)	9 5/8 (244)	*	*	*	30644 (13900)	34105 (15470)
46 (1150)	44 (1118)	*	*	*	45 5/8 (1159)	42 1/2 (1080)	76 (1930)	9 5/8 (244)	*	*	*	39264 (17810)	43100 (19550)
48 (1200)	46 (1168)	*	*	*	47 3/8 (1203)	44 3/8 (1127)	79 (2007)	9 5/8 (244)	*	*	*	44092 (20000)	48082 (21810)
56 (1400)	55 (1397)	*	*	*	53 3/4 (1365)	50 3/8 (1280)	91 5/8 (2327)	11 (279)	-	-	-	66027 (29950)	70106 (31800)
60 (1500)	57 1/2 (1461)	*	*	*	57 1/2 (1461)	55 1/8 (1400)	98 3/8 (2499)	11 (279)	-	-	-	78527 (35620)	82297 (37330)

\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

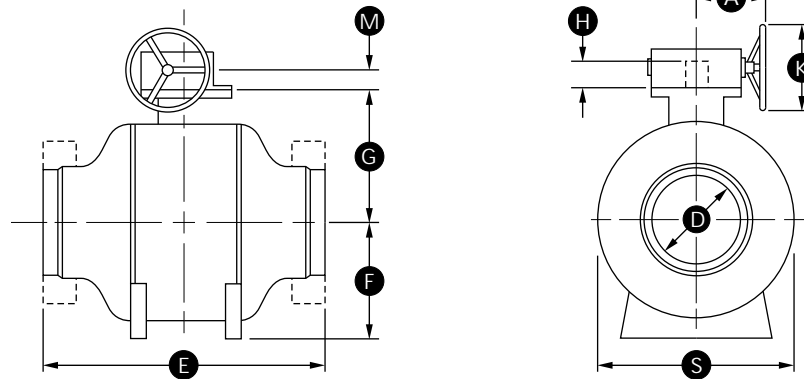
Shaded Bore Sizes (D) accordance to ISO 14313

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D



# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 600



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 600

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	22 (559)	22 (559)	22 1/8 (562)	12 1/4 (311)	8 1/2 (216)	12 1/4 (311)	2 3/4 (70)	*	*	*	529 (240)	661 (300)
8 (200)	8 (203)	26 (660)	26 (660)	26 1/8 (664)	13 3/4 (349)	9 7/8 (251)	16 1/8 (410)	3 3/4 (95)	*	*	*	573 (260)	705 (320)
10 (250)	10 (254)	31 (787)	31 (787)	31 1/8 (791)	15 3/8 (391)	11 5/8 (295)	18 7/8 (479)	3 3/4 (95)	*	*	*	750 (340)	926 (420)
12 (300)	12 (305)	33 (838)	33 (838)	33 1/8 (841)	16 7/8 (429)	13 1/2 (343)	22 1/4 (565)	3 3/4 (95)	*	*	*	1146 (520)	1389 (630)
14 (350)	13 1/4 (337)	35 (889)	35 (889)	35 1/8 (892)	18 7/8 (479)	14 5/8 (371)	23 3/4 (603)	4 1/2 (114)	*	*	*	1698 (770)	2050 (930)
16 (400)	15 1/4 (387)	39 (991)	39 (991)	39 1/8 (994)	20 1/2 (521)	16 1/4 (413)	27 1/4 (692)	4 1/2 (114)	*	*	*	2557 (1160)	3086 (1400)
18 (450)	17 1/4 (438)	43 (1092)	43 (1092)	43 1/8 (1095)	22 1/8 (562)	18 (457)	30 7/8 (784)	7 1/8 (181)	*	*	*	3483 (1580)	4167 (1890)
20 (500)	19 1/4 (489)	47 (1194)	47 (1194)	47 1/4 (1200)	23 3/4 (603)	19 3/8 (492)	33 7/8 (860)	7 1/8 (181)	*	*	*	4453 (2020)	5269 (2390)
22 (550)	21 1/4 (540)	51 (1295)	51 (1295)	51 3/8 (1305)	25 5/8 (651)	21 1/8 (537)	37 3/8 (949)	8 1/8 (206)	*	*	*	5908 (2680)	6966 (3160)
24 (600)	23 1/4 (591)	55 (1397)	55 (1397)	55 3/8 (1407)	27 1/8 (689)	22 1/2 (572)	40 1/8 (1019)	8 1/8 (206)	*	*	*	7429 (3370)	8752 (3970)
26 (650)	25 (635)	57 (1448)	57 (1448)	57 1/2 (1461)	29 1/8 (740)	24 1/2 (622)	43 (1092)	8 1/8 (206)	*	*	*	9127 (4140)	10714 (4860)
28 (700)	27 (686)	61 (1549)	61 (1549)	61 1/2 (1562)	30 1/2 (775)	25 7/8 (657)	46 1/8 (1172)	8 1/8 (206)	*	*	*	11023 (5000)	12919 (5860)
30 (750)	29 (737)	65 (1651)	65 (1651)	65 1/2 (1664)	32 5/8 (829)	27 1/2 (699)	50 1/8 (1273)	9 5/8 (244)	*	*	*	12743 (5780)	14881 (6750)
32 (800)	30 3/4 (781)	70 (1778)	70 (1778)	70 5/8 (1794)	34 1/4 (870)	29 (737)	52 1/2 (1334)	9 5/8 (244)	*	*	*	15168 (6880)	17438 (7910)
34 (850)	32 3/4 (832)	76 (1930)	76 (1930)	76 5/8 (1946)	35 3/8 (899)	30 7/8 (784)	55 (1397)	9 5/8 (244)	*	*	*	18100 (8210)	20679 (9380)
36 (900)	34 1/2 (876)	82 (2083)	82 (2083)	82 5/8 (2099)	36 7/8 (937)	32 3/8 (822)	58 1/2 (1486)	9 5/8 (244)	*	*	*	20944 (9500)	23765 (10780)
40 (1000)	38 1/2 (978)	*	*	*	40 1/2 (1029)	35 5/8 (905)	65 7/8 (1673)	9 5/8 (244)	*	*	*	28748 (13040)	32187 (14600)
42 (1050)	40 1/4 (1022)	*	*	*	42 (1067)	38 1/8 (968)	69 1/2 (1765)	9 5/8 (244)	*	*	*	32959 (14950)	36684 (16640)
46 (1150)	44 (1118)	*	*	*	46 1/8 (1172)	42 1/2 (1080)	76 3/4 (1949)	9 5/8 (244)	*	*	*	42218 (19150)	46362 (21030)
48 (1200)	46 (1168)	85 7/8 (2181)	85 7/8 (2181)	*	47 7/8 (1216)	44 3/8 (1127)	79 7/8 (2029)	9 5/8 (244)	*	*	*	47399 (21500)	51720 (23460)
56 (1400)	55 (1397)	*	*	*	54 3/8 (1381)	50 3/8 (1280)	92 5/8 (2353)	11 (279)	-	-	-	70988 (32200)	75397 (34200)
60 (1500)	57 1/2 (1461)	*	*	*	58 1/8 (1476)	55 1/8 (1400)	99 3/8 (2524)	11 (279)	-	-	-	84436 (38300)	88492 (40140)

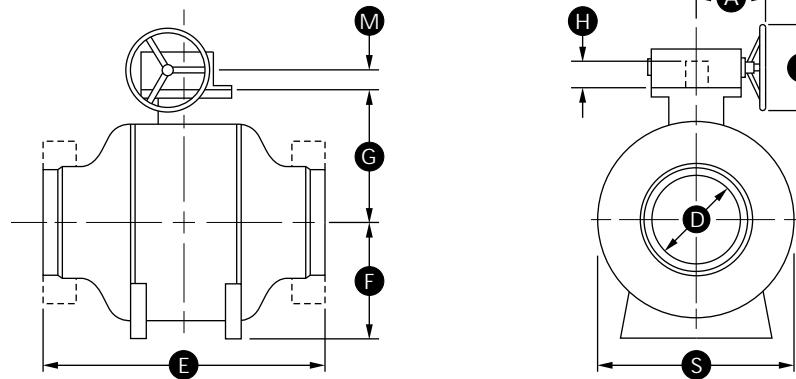
\* Dimension on request

Flanges in accordance with ASME B16.5  
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313  
Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 900



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 900

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	24 (610)	24 (610)	24 1/8 (613)	9 7/8 (251)	9 1/2 (241)	13 1/4 (337)	3 3/4 (95)	*	*	*	640 (290)	800 (363)
8 (200)	8 (203)	29 (737)	29 (737)	29 1/8 (740)	11 3/8 (289)	10 7/8 (276)	16 1/2 (419)	3 3/4 (95)	*	*	*	694 (315)	854 (387)
10 (250)	10 (254)	33 (838)	33 (838)	33 1/8 (841)	13 5/8 (346)	12 1/2 (318)	20 1/8 (511)	4 1/2 (114)	*	*	*	907 (411)	1120 (508)
12 (300)	12 (305)	38 (965)	38 (965)	38 1/8 (968)	15 3/8 (391)	14 3/8 (365)	23 5/8 (600)	4 1/2 (114)	*	*	*	1387 (629)	1681 (762)
14 (350)	12 3/4 (324)	40 1/2 (1029)	40 1/2 (1029)	40 7/8 (1038)	17 3/4 (451)	15 3/8 (391)	26 3/4 (679)	4 1/2 (114)	*	*	*	2054 (932)	2481 (1125)
16 (400)	14 3/4 (375)	44 1/2 (1130)	44 1/2 (1130)	44 7/8 (1140)	19 5/8 (498)	16 7/8 (429)	30 3/8 (772)	7 1/8 (181)	*	*	*	3094 (1404)	3735 (1694)
18 (450)	16 3/4 (425)	48 (1219)	48 (1219)	48 1/2 (1232)	21 5/8 (549)	19 1/8 (486)	33 1/2 (851)	7 1/8 (181)	*	*	*	4215 (1912)	5042 (2287)
20 (500)	18 5/8 (473)	52 (1321)	52 (1321)	52 1/2 (1334)	23 1/4 (591)	20 7/8 (530)	36 1/4 (921)	8 1/8 (206)	*	*	*	5388 (2444)	6375 (2892)
22 (550)	20 5/8 (524)	*	*	*	25 3/4 (654)	21 7/8 (556)	40 1/2 (1029)	8 1/8 (206)	*	*	*	7149 (3243)	8429 (3824)
24 (600)	22 1/2 (572)	61 (1549)	61 (1549)	61 3/4 (1568)	27 1/2 (699)	24 3/8 (619)	43 3/4 (1111)	9 5/8 (244)	*	*	*	8990 (4078)	10590 (4804)
26 (650)	24 3/8 (619)	*	*	*	29 7/8 (759)	26 1/4 (667)	47 1/4 (1200)	9 5/8 (244)	*	*	*	11044 (5009)	12964 (5881)
28 (700)	26 1/4 (667)	*	*	*	31 7/8 (810)	27 7/8 (708)	50 3/4 (1289)	9 5/8 (244)	*	*	*	13338 (6050)	15632 (7091)
30 (750)	28 1/8 (714)	*	*	*	32 3/4 (832)	29 5/8 (752)	53 3/8 (1356)	9 5/8 (244)	*	*	*	15418 (6994)	18006 (8168)
32 (800)	30 (762)	*	*	*	35 7/8 (911)	31 7/8 (810)	57 1/2 (1461)	9 5/8 (244)	*	*	*	18353 (8325)	21100 (9571)
34 (850)	31 7/8 (810)	*	*	*	37 3/4 (959)	33 3/8 (848)	61 (1549)	9 5/8 (244)	*	*	*	21901 (9934)	25022 (11350)
36 (900)	33 3/4 (857)	*	*	*	40 1/8 (1019)	34 3/4 (883)	64 3/8 (1635)	11 (279)	*	*	*	25342 (11495)	28756 (13044)
40 (1000)	37 5/8 (956)	*	*	*	44 1/8 (1121)	38 1/4 (972)	71 1/4 (1810)	11 (279)	*	*	*	34785 (15778)	38946 (17666)
42 (1050)	39 5/8 (1006)	*	*	*	47 1/4 (1200)	41 3/4 (1060)	74 3/4 (1899)	11 (279)	*	*	*	39880 (18090)	44388 (20134)
46 (1150)	43 3/8 (1102)	*	*	*	50 3/8 (1280)	43 3/4 (1111)	81 1/2 (2070)	11 (279)	*	*	*	51084 (23172)	56099 (25446)
48 (1200)	45 1/4 (1149)	*	*	*	52 3/8 (1330)	45 1/4 (1149)	85 (2159)	11 (279)	*	*	*	57352 (26015)	62581 (28387)

\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313

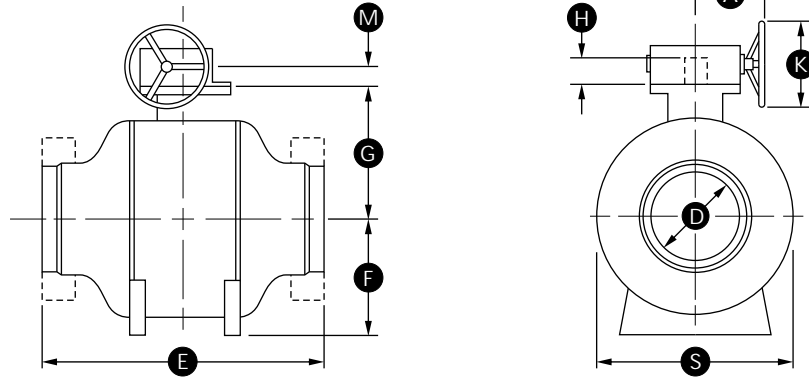
Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D



# B8 FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 1500

Larger sizes available on request.  
Reduced-bore valves also available.



### ASME CLASS 1500

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	5 3/4 (146)	27 3/4 (705)	27 3/4 (705)	28 (711)	12 5/8 (321)	11 (279)	16 7/8 (429)	3 3/4 (95)	*	*	*	767 (348)	959 (435)
8 (200)	7 5/8 (194)	32 3/4 (832)	32 3/4 (832)	33 1/8 (841)	14 5/8 (371)	12 7/8 (327)	21 1/8 (537)	4 1/2 (114)	*	*	*	831 (377)	1023 (464)
10 (250)	9 1/2 (241)	39 (991)	39 (991)	39 3/8 (1000)	17 3/8 (441)	15 3/8 (391)	25 3/4 (654)	4 1/2 (114)	*	*	*	1087 (493)	1343 (609)
12 (300)	11 3/8 (289)	44 1/2 (1130)	44 1/2 (1130)	45 1/8 (1146)	19 5/8 (498)	16 5/8 (422)	30 1/4 (768)	4 1/2 (114)	*	*	*	1662 (754)	2014 (914)
14 (350)	12 1/2 (318)	49 1/2 (1257)	49 1/2 (1257)	50 1/4 (1276)	22 5/8 (575)	19 5/8 (498)	34 1/4 (870)	7 1/8 (181)	*	*	*	2461 (1117)	2973 (1349)
16 (400)	14 1/4 (362)	54 1/2 (1384)	54 1/2 (1384)	55 3/8 (1407)	25 1/4 (641)	22 (559)	38 3/4 (984)	7 1/8 (181)	*	*	*	3708 (1682)	4475 (2030)
18 (450)	16 1/4 (413)	*	*	*	27 3/4 (705)	23 1/4 (591)	42 7/8 (1089)	8 1/8 (206)	*	*	*	5051 (2291)	6042 (2741)
20 (500)	18 (457)	*	*	*	29 7/8 (759)	28 1/2 (724)	46 3/8 (1178)	9 5/8 (244)	*	*	*	6457 (2929)	7640 (3466)
22 (550)	19 3/4 (502)	*	*	*	33 (838)	30 1/4 (768)	51 7/8 (1318)	9 5/8 (244)	*	*	*	8567 (3886)	10101 (4582)
24 (600)	21 5/8 (549)	*	*	*	35 1/8 (892)	32 (813)	55 7/8 (1419)	9 5/8 (244)	*	*	*	10773 (4887)	12691 (5757)
26 (650)	23 1/2 (597)	*	*	*	38 1/4 (972)	35 1/2 (902)	60 1/2 (1537)	11 (279)	*	*	*	13234 (6003)	15536 (7047)
28 (700)	25 1/4 (641)	*	*	*	40 7/8 (1038)	37 (940)	65 (1651)	11 (279)	*	*	*	15983 (7250)	18732 (8497)
30 (750)	27 (686)	*	*	*	42 (1067)	40 3/4 (1035)	68 3/8 (1737)	11 (279)	*	*	*	18477 (8381)	21577 (9788)
32 (800)	28 3/4 (730)	*	*	*	45 7/8 (1165)	41 3/4 (1060)	73 5/8 (1870)	11 (279)	*	*	*	21993 (9976)	25285 (11470)
34 (850)	30 1/2 (775)	*	*	*	48 3/8 (1229)	44 7/8 (1140)	78 1/8 (1984)	11 (279)	*	*	*	26244 (11905)	29985 (13601)
36 (900)	32 1/4 (819)	*	*	*	51 3/8 (1305)	46 1/2 (1181)	82 3/8 (2092)	11 (279)	*	*	*	30368 (13775)	34460 (15631)

\* Dimension on request

Flanges in accordance with ASME B16.5

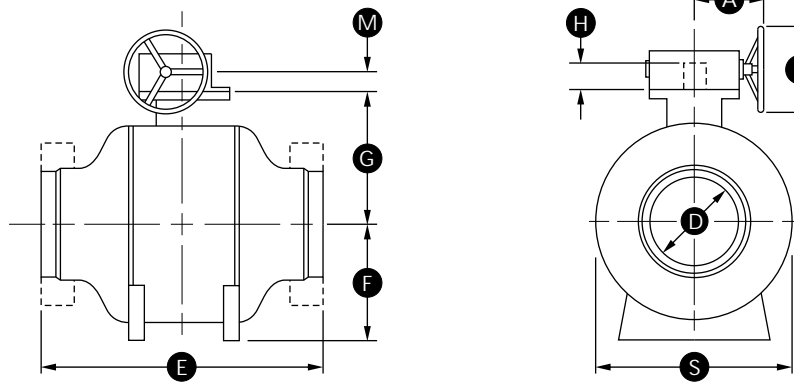
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

## B8 FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 2500

Larger sizes available on request.  
Reduced-bore valves also available.



### ASME CLASS 2500

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
8 (200)	7 1/8 (181)	40 1/4 (1022)	40 1/4 (1022)	40 7/8 (1038)	15 1/8 (385)	15 1/2 (393)	26 (660)	5 1/2 (140)	*	*	*	-	-
10 (250)	8 7/8 (225)	50 (1270)	50 (1270)	50 7/8 (1292)	17 1/8 (435)	18 1/4 (465)	31 1/8 (790)	5 1/2 (140)	*	*	*	-	-
12 (300)	10 1/2 (267)	56 (1422)	56 (1422)	56 7/8 (1445)	19 5/8 (500)	20 1/2 (521)	34 1/4 (870)	5 1/2 (140)	*	*	*	-	-
14 (350)	11 1/2 (292)	*	*	*	*	*	*	*	*	*	*	*	*
16 (400)	13 1/8 (333)	*	*	*	*	*	*	*	*	*	*	*	*
18 (450)	14 3/4 (374)	*	*	*	*	*	*	*	*	*	*	*	*
20 (500)	16 1/2 (419)	*	*	*	*	*	*	*	*	*	*	*	*
22 (550)	*	*	*	*	*	*	*	*	*	*	*	*	*
24 (600)	*	*	*	*	*	*	*	*	*	*	*	*	*

\* Dimension on request

Flanges in accordance with ASME B16.5

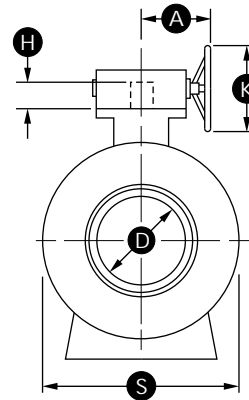
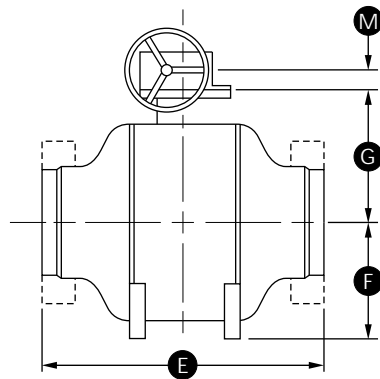
Butt Welding Ends accordance to ASME B16.25

Shaded Bore Sizes (D) accordance to ISO 14313

Shaded End-to-End Dimensions (E) accordance to ISO 14313/API 6D

## B8a FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 150

Larger sizes available on request.  
Reduced-bore valves also available.



### ASME CLASS 150

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	18 (457)	* *	* *	11 7/8 (302)	8 1/2 (216)	11 7/8 (302)	2 3/4 (70)	* *	* *	* *	397 (180)	507 (230)
8 (200)	8 (203)	20 1/2 (521)	* *	* *	13 3/8 (340)	9 7/8 (251)	15 5/8 (397)	2 3/4 (70)	* *	* *	* *	441 (200)	551 (250)
10 (250)	10 (254)	22 (559)	* *	* *	14 7/8 (378)	11 5/8 (295)	18 1/4 (464)	2 3/4 (70)	* *	* *	* *	573 (260)	705 (320)
12 (300)	12 (305)	25 (635)	* *	* *	16 3/8 (416)	13 1/2 (343)	21 5/8 (549)	2 3/4 (70)	* *	* *	* *	882 (400)	1080 (490)
14 (350)	13 1/4 (337)	28 1/2 (724)	* *	* *	18 3/8 (467)	14 5/8 (371)	23 (584)	3 3/4 (95)	* *	* *	* *	1301 (590)	1587 (720)
16 (400)	15 1/4 (387)	30 1/2 (775)	* *	* *	19 7/8 (505)	16 1/4 (413)	26 3/8 (670)	3 3/4 (95)	* *	* *	* *	1962 (890)	2381 (1080)
18 (450)	17 1/4 (438)	33 1/2 (851)	* *	* *	21 1/2 (546)	18 (457)	29 7/8 (759)	4 1/2 (114)	* *	* *	* *	2690 (1220)	3219 (1460)
20 (500)	19 1/4 (489)	35 1/2 (902)	* *	* *	23 1/8 (587)	19 3/8 (492)	32 7/8 (835)	4 1/2 (114)	* *	* *	* *	3439 (1560)	4056 (1840)
22 (550)	21 1/4 (540)	38 1/2 (978)	* *	* *	24 7/8 (632)	21 1/8 (537)	36 1/4 (921)	4 1/2 (114)	* *	* *	* *	4541 (2060)	5379 (2440)
24 (600)	23 1/4 (591)	42 (1067)	* *	* *	26 3/8 (670)	22 1/2 (572)	38 7/8 (987)	7 1/8 (181)	* *	* *	* *	5710 (2590)	6746 (3060)
26 (650)	25 (635)	44 1/2 (1130)	* *	* *	28 1/4 (718)	24 1/2 (622)	41 3/4 (1060)	7 1/8 (181)	* *	* *	* *	7033 (3190)	8245 (3740)
28 (700)	27 (686)	47 (1194)	* *	* *	29 5/8 (752)	25 7/8 (657)	44 3/4 (1137)	7 1/8 (181)	* *	* *	* *	8488 (3850)	9943 (4510)
30 (750)	29 (737)	49 (1245)	* *	* *	31 3/4 (806)	27 1/2 (699)	48 5/8 (1235)	7 1/8 (181)	* *	* *	* *	9810 (4450)	11464 (5200)
32 (800)	30 3/4 (781)	51 1/2 (1308)	* *	* *	33 1/4 (845)	29 (737)	51 (1295)	8 1/8 (206)	* *	* *	* *	11684 (5300)	13426 (6090)
34 (850)	32 3/4 (832)	54 1/2 (1384)	* *	* *	34 3/8 (873)	30 7/8 (784)	53 3/8 (1356)	8 1/8 (206)	* *	* *	* *	13933 (6320)	15917 (7220)
36 (900)	34 1/2 (876)	56 1/2 (1435)	* *	* *	35 3/4 (908)	32 3/8 (822)	56 3/4 (1441)	8 1/8 (206)	* *	* *	* *	16138 (7320)	18298 (8300)
40 (1000)	38 1/2 (978)	65 (1651)	* *	* *	39 3/8 (1000)	35 5/8 (905)	63 7/8 (1622)	8 1/8 (206)	* *	* *	* *	22134 (10040)	24802 (11250)
42 (1050)	40 1/4 (1022)	66 1/2 (1689)	* *	* *	40 3/4 (1035)	38 1/8 (968)	67 3/8 (1711)	8 1/8 (206)	* *	* *	* *	25375 (11510)	28241 (12810)
46 (1150)	44 (1118)	73 (1854)	* *	* *	44 5/8 (1133)	42 1/2 (1080)	74 1/2 (1892)	8 1/8 (206)	* *	* *	* *	32518 (14750)	35692 (16190)
48 (1200)	46 (1168)	76 (1930)	* *	* *	46 3/8 (1178)	44 3/8 (1127)	77 1/2 (1969)	8 1/8 (206)	* *	* *	* *	36508 (16560)	39815 (18060)
56 (1400)	55 (1397)	87 (2210)	* *	* *	52 3/4 (1340)	50 3/8 (1280)	89 3/4 (2280)	9 5/8 (244)	- -	- -	- -	54652 (24790)	58047 (26330)
60 (1500)	57 1/2 (1461)	92 1/2 (2350)	* *	* *	56 3/8 (1432)	55 1/8 (1400)	96 3/8 (2448)	9 5/8 (244)	- -	- -	- -	65013 (29490)	68144 (30910)

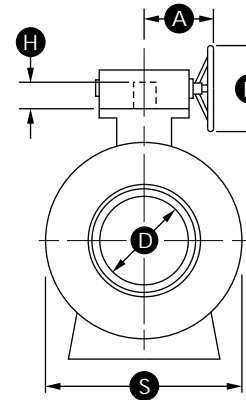
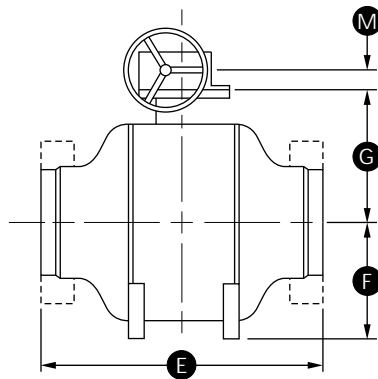
\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

# B8a FULLY WELDED BODY BALL VALVE

## DIMENSIONS AND WEIGHTS ASME CLASS 300



Larger sizes available on request.  
Reduced-bore valves also available.

### ASME CLASS 300

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	18 (457)	* *	* *	11 7/8 (302)	8 1/2 (216)	12 (305)	2 3/4 (70)	* *	* *	* *	419 (190)	529 (240)
8 (200)	8 (203)	20 1/2 (521)	* *	* *	13 3/8 (340)	9 7/8 (251)	15 7/8 (403)	2 3/4 (70)	* *	* *	* *	463 (210)	573 (260)
10 (250)	10 (254)	22 (559)	* *	* *	14 7/8 (378)	11 5/8 (295)	18 3/8 (467)	3 3/4 (95)	* *	* *	* *	617 (280)	750 (340)
12 (300)	12 (305)	25 (635)	* *	* *	16 3/8 (416)	13 1/2 (343)	21 3/4 (552)	3 3/4 (95)	* *	* *	* *	926 (420)	1124 (510)
14 (350)	13 1/4 (337)	28 1/2 (724)	* *	* *	18 3/8 (467)	14 5/8 (371)	23 1/4 (591)	4 1/2 (114)	* *	* *	* *	1367 (620)	1675 (760)
16 (400)	15 1/4 (387)	30 1/2 (775)	* *	* *	19 7/8 (505)	16 1/4 (413)	26 3/4 (679)	4 1/2 (114)	* *	* *	* *	2072 (940)	2491 (1130)
18 (450)	17 1/4 (438)	33 1/2 (851)	* *	* *	21 1/2 (546)	18 (457)	30 1/4 (768)	4 1/2 (114)	* *	* *	* *	2822 (1280)	3373 (1530)
20 (500)	19 1/4 (489)	35 1/2 (902)	* *	* *	23 1/8 (587)	16 7/8 (429)	33 1/4 (845)	7 1/8 (181)	* *	* *	* *	3616 (1640)	4277 (1940)
22 (550)	21 1/4 (540)	38 1/2 (978)	* *	* *	24 7/8 (632)	21 1/8 (537)	36 5/8 (930)	7 1/8 (181)	* *	* *	* *	4784 (2170)	5644 (2560)
24 (600)	23 1/4 (591)	42 (1067)	* *	* *	26 3/8 (670)	22 1/2 (572)	39 1/4 (997)	7 1/8 (181)	* *	* *	* *	6019 (2730)	7099 (3220)
26 (650)	25 (635)	44 1/2 (1130)	* *	* *	28 1/4 (718)	24 1/2 (622)	42 1/8 (1070)	8 1/8 (206)	* *	* *	* *	7385 (3350)	8686 (3940)
28 (700)	27 (686)	47 (1194)	* *	* *	29 5/8 (752)	25 7/8 (657)	45 1/4 (1149)	8 1/8 (206)	* *	* *	* *	8929 (4050)	10450 (4740)
30 (750)	29 (737)	49 (1245)	* *	* *	31 3/4 (806)	27 1/2 (699)	49 1/8 (1248)	8 1/8 (206)	* *	* *	* *	10317 (4680)	12059 (5470)
32 (800)	30 3/4 (781)	51 1/2 (1308)	* *	* *	33 1/4 (845)	29 (737)	51 1/2 (1308)	8 1/8 (206)	* *	* *	* *	12280 (5570)	14109 (6400)
34 (850)	32 3/4 (832)	54 1/2 (1384)	* *	* *	34 3/8 (873)	30 7/8 (784)	53 7/8 (1368)	8 1/8 (206)	* *	* *	* *	14660 (6650)	16733 (7590)
36 (900)	34 1/2 (876)	56 1/2 (1435)	* *	* *	35 3/4 (908)	32 3/8 (822)	57 3/8 (1457)	8 1/8 (206)	* *	* *	* *	16975 (7700)	19246 (8730)
40 (1000)	38 1/2 (978)	65 (1651)	* *	* *	39 3/8 (1000)	35 5/8 (905)	64 1/2 (1638)	8 1/8 (206)	* *	* *	* *	23280 (10560)	26080 (11830)
42 (1050)	40 1/4 (1022)	66 1/2 (1689)	* *	* *	40 3/4 (1035)	38 1/8 (968)	68 1/8 (1730)	9 5/8 (244)	* *	* *	* *	26698 (12110)	29718 (13480)
46 (1150)	44 (1118)	73 (1854)	* *	* *	44 5/8 (1133)	42 1/2 (1080)	75 1/4 (1911)	9 5/8 (244)	* *	* *	* *	34193 (15510)	37544 (17030)
48 (1200)	46 (1168)	76 (1930)	* *	* *	46 3/8 (1178)	44 3/8 (1127)	78 1/4 (1988)	9 5/8 (244)	* *	* *	* *	38404 (17420)	41887 (19000)
56 (1400)	55 (1397)	87 (2210)	* *	* *	52 3/4 (1340)	50 3/8 (1280)	90 3/4 (2305)	9 5/8 (244)	- -	- -	- -	57496 (26080)	61067 (27700)
60 (1500)	57 1/2 (1461)	92 1/2 (2350)	* *	* *	56 3/8 (1432)	55 1/8 (1400)	97 1/2 (2477)	9 5/8 (244)	- -	- -	- -	68386 (31020)	71671 (32510)

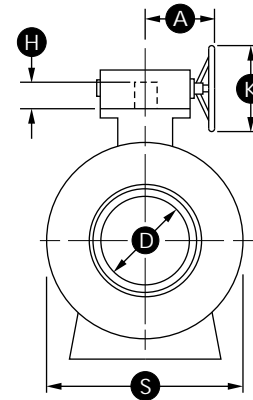
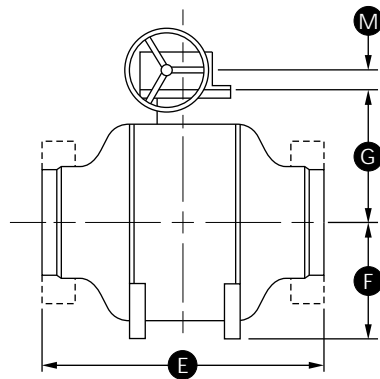
\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

## B8a FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 600

Larger sizes available on request.  
Reduced-bore valves also available.



### ASME CLASS 600

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	18 (457)	* *	* *	12 1/4 (311)	8 1/2 (216)	12 1/4 (311)	2 3/4 (70)	* *	* *	* *	529 (240)	661 (300)
8 (200)	8 (203)	21 1/2 (546)	* *	* *	13 3/4 (349)	9 7/8 (251)	16 1/8 (410)	3 3/4 (95)	* *	* *	* *	573 (260)	705 (320)
10 (250)	10 (254)	23 1/2 (597)	* *	* *	15 3/8 (391)	11 5/8 (295)	18 7/8 (479)	3 3/4 (95)	* *	* *	* *	750 (340)	926 (420)
12 (300)	12 (305)	26 1/2 (673)	* *	* *	16 7/8 (429)	13 1/2 (343)	22 1/4 (565)	3 3/4 (95)	* *	* *	* *	1146 (520)	1389 (630)
14 (350)	13 1/4 (337)	28 1/2 (724)	* *	* *	18 7/8 (479)	14 5/8 (371)	23 3/4 (603)	4 1/2 (114)	* *	* *	* *	1698 (770)	2050 (930)
16 (400)	15 1/4 (387)	30 1/2 (775)	* *	* *	20 1/2 (521)	16 1/4 (413)	27 1/4 (692)	4 1/2 (114)	* *	* *	* *	2557 (1160)	3086 (1400)
18 (450)	17 1/4 (438)	33 1/2 (851)	* *	* *	22 1/8 (562)	18 (457)	30 7/8 (784)	7 1/8 (181)	* *	* *	* *	3483 (1580)	4167 (1890)
20 (500)	19 1/4 (489)	35 1/2 (902)	* *	* *	23 3/4 (603)	19 3/8 (492)	33 7/8 (860)	7 1/8 (181)	* *	* *	* *	4453 (2020)	5269 (2390)
22 (550)	21 1/4 (540)	38 1/2 (978)	* *	* *	25 5/8 (651)	21 1/8 (537)	37 3/8 (949)	8 1/8 (206)	* *	* *	* *	5908 (2680)	6966 (3160)
24 (600)	23 1/4 (591)	42 (1067)	* *	* *	27 1/8 (689)	22 1/2 (572)	40 1/8 (1019)	8 1/8 (206)	* *	* *	* *	7429 (3370)	8752 (3970)
26 (650)	25 (635)	44 1/2 (1130)	* *	* *	29 1/8 (740)	24 1/2 (622)	43 (1092)	8 1/8 (206)	* *	* *	* *	9127 (4140)	10714 (4860)
28 (700)	27 (686)	47 (1194)	* *	* *	30 1/2 (775)	25 7/8 (657)	46 1/8 (1172)	8 1/8 (206)	* *	* *	* *	11023 (5000)	12919 (5860)
30 (750)	29 (737)	49 (1245)	* *	* *	32 5/8 (829)	27 1/2 (699)	50 1/8 (1273)	9 5/8 (244)	* *	* *	* *	12743 (5780)	14881 (6750)
32 (800)	30 3/4 (781)	51 1/2 (1308)	* *	* *	34 1/4 (870)	29 (737)	52 1/2 (1334)	9 5/8 (244)	* *	* *	* *	15168 (6880)	17438 (7910)
34 (850)	32 3/4 (832)	54 1/2 (1384)	* *	* *	35 3/8 (899)	30 7/8 (784)	55 (1397)	9 5/8 (244)	* *	* *	* *	18100 (8210)	20679 (9380)
36 (900)	34 1/2 (876)	56 1/2 (1435)	* *	* *	36 7/8 (937)	32 3/8 (822)	58 1/2 (1486)	9 5/8 (244)	* *	* *	* *	20944 (9500)	23765 (10780)
40 (1000)	38 1/2 (978)	65 (1651)	* *	* *	40 1/2 (1029)	35 5/8 (905)	65 7/8 (1673)	9 5/8 (244)	* *	* *	* *	28748 (13040)	32187 (14600)
42 (1050)	40 1/4 (1022)	66 1/2 (1689)	* *	* *	42 (1067)	38 1/8 (968)	69 1/2 (1765)	9 5/8 (244)	* *	* *	* *	32959 (14950)	36684 (16640)
46 (1150)	44 (1118)	73 (1854)	* *	* *	46 1/8 (1172)	42 1/2 (1080)	76 3/4 (1949)	9 5/8 (244)	* *	* *	* *	42218 (19150)	46362 (21030)
48 (1200)	46 (1168)	76 (1930)	* *	* *	47 7/8 (1216)	44 3/8 (1127)	79 7/8 (2029)	9 5/8 (244)	* *	* *	* *	47399 (21500)	51720 (23460)
56 (1400)	55 (1397)	87 (2210)	* *	* *	54 3/8 (1381)	50 3/8 (1280)	92 5/8 (2353)	11 (279)	- -	- -	- -	70988 (32200)	75397 (34200)
60 (1500)	57 1/2 (1461)	92 1/2 (2350)	* *	* *	58 1/8 (1476)	55 1/8 (1400)	99 3/8 (2524)	11 (279)	- -	- -	- -	84436 (38300)	88492 (40140)

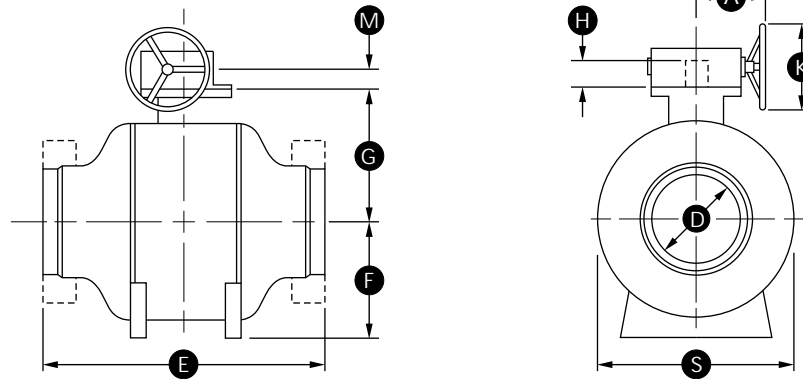
\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

## B8a FULLY WELDED BODY BALL VALVE DIMENSIONS AND WEIGHTS ASME CLASS 900

Larger sizes available on request.  
Reduced-bore valves also available.



### ASME CLASS 900

SIZE in. (mm)	D	E			F	G	S	H	A	K	M	WEIGHT lb. (kg)	
		WE	RF	RTJ								WE	RF/RTJ
6 (150)	6 (152)	20 (508)	* *	* *	9 7/8 (251)	9 1/2 (241)	13 1/4 (337)	3 3/4 (95)	* *	* *	* *	640 (290)	800 (363)
8 (200)	8 (203)	23 1/2 (597)	* *	* *	11 3/8 (289)	10 7/8 (276)	16 1/2 (419)	3 3/4 (95)	* *	* *	* *	694 (315)	854 (387)
10 (250)	10 (254)	25 1/2 (648)	* *	* *	13 5/8 (346)	12 1/2 (318)	20 1/8 (511)	4 1/2 (114)	* *	* *	* *	907 (411)	1120 (508)
12 (300)	12 (305)	29 1/2 (749)	* *	* *	15 3/8 (391)	14 3/8 (365)	23 5/8 (600)	4 1/2 (114)	* *	* *	* *	1387 (629)	1681 (762)
14 (350)	12 3/4 (324)	31 1/2 (800)	* *	* *	17 3/4 (451)	15 3/8 (391)	26 3/4 (679)	4 1/2 (114)	* *	* *	* *	2054 (932)	2481 (1125)
16 (400)	14 3/4 (375)	33 1/2 (851)	* *	* *	19 5/8 (498)	16 7/8 (429)	30 3/8 (772)	7 1/8 (181)	* *	* *	* *	3094 (1404)	3735 (1694)
18 (450)	16 3/4 (425)	36 1/2 (927)	* *	* *	21 5/8 (549)	19 1/8 (486)	33 1/2 (851)	7 1/8 (181)	* *	* *	* *	4215 (1912)	5042 (2287)
20 (500)	18 5/8 (473)	38 1/2 (978)	* *	* *	23 1/4 (591)	20 7/8 (530)	36 1/4 (921)	8 1/8 (206)	* *	* *	* *	5388 (2444)	6375 (2892)
22 (550)	20 5/8 (524)	42 (1067)	* *	* *	25 3/4 (654)	21 7/8 (556)	40 1/2 (1029)	8 1/8 (206)	* *	* *	* *	7149 (3243)	8429 (3824)
24 (600)	22 1/2 (572)	45 (1143)	* *	* *	27 1/2 (699)	24 3/8 (619)	43 3/4 (1111)	9 5/8 (244)	* *	* *	* *	8990 (4078)	10590 (4804)
26 (650)	24 3/8 (619)	47 1/2 (1207)	* *	* *	29 7/8 (759)	26 1/4 (667)	47 1/4 (1200)	9 5/8 (244)	* *	* *	* *	11044 (5009)	12964 (5881)
28 (700)	26 1/4 (667)	50 (1270)	* *	* *	31 7/8 (810)	27 7/8 (708)	50 3/4 (1289)	9 5/8 (244)	* *	* *	* *	13338 (6050)	15632 (7091)
30 (750)	28 1/8 (714)	52 (1321)	* *	* *	32 3/4 (832)	29 5/8 (752)	53 3/8 (1356)	9 5/8 (244)	* *	* *	* *	15418 (6994)	18006 (8168)
32 (800)	30 (762)	54 1/2 (1384)	* *	* *	35 7/8 (911)	31 7/8 (810)	57 1/2 (1461)	9 5/8 (244)	* *	* *	* *	18353 (8325)	21100 (9571)
34 (850)	31 7/8 (810)	57 (1448)	* *	* *	37 3/4 (959)	33 3/8 (848)	61 (1549)	9 5/8 (244)	* *	* *	* *	21901 (9934)	25022 (11350)
36 (900)	33 3/4 (857)	59 1/2 (1511)	* *	* *	40 1/8 (1019)	34 3/4 (883)	64 3/8 (1635)	11 (279)	* *	* *	* *	25342 (11495)	28756 (13044)

\* Dimension on request

Flanges in accordance with ASME B16.5

Butt Welding Ends accordance to ASME B16.25

## B8, B8a AND B8.1 FULLY WELDED BODY BALL VALVE QUALITY SYSTEM & QUALIFICATION TESTING

### QUALITY ASSURANCE PROGRAM

CAMERON management runs a high level quality control program to ensure all products are manufactured to the highest standards using the latest technology.

CAMERON'S quality system is based on ISO 9000 and API Q1 codes.

All valves are designed in accordance with the most stringent industry procedures and standards and are built according to the European Directives PED and ATEX upon request.

The Quality Department monitors and controls all phases of valve production, inspection and testing to maintain compliance to quality requirements.

### RESEARCH & DEVELOPMENT LAB

CAMERON valves are designed in accordance with applicable industry specifications. CAMERON can design valves in accordance with customer codes and specifications upon request. All designs are subjected to full in-house qualification testing. CAMERON's in-house testing facilities and our participation with the major oil and gas companies R&D programs allow CAMERON to supply products featuring advanced technology.

Hydraulic and gas sealing testing, functional testing, cycling and torque testing are carried out on prototype valves. This testing validates the valve design, verifies the maximum allowable seat leakage rate and the expected service life.

### HIGH PRESSURE GAS TESTING

Customer specifications may require more detailed testing in addition to conventional hydrostatic testing. CAMERON is fully equipped to carry out enhanced gas testing, at ambient, low or high temperatures using our in-house, specially equipped, state of the art test bunkers.

External leakage rates (if any) are detected by means of a mass spectrometer. Leakage through the seats (if any) is measured by means of calibrated flow meters.

For low or high temperature service, gas testing can be performed to customer specified critical conditions.

CAMERON facilities are capable of testing a wide range of valve sizes and pressure classes.

### INSPECTION, TESTING

The CAMERON Quality Department monitors and verifies all phases of valve production from material receipt to final inspection including a liaison with Third Party inspectors and certifying authorities.

All products are supplied with certified test reports which include the chemical and physical analysis of pressure containing components as well as hydrostatic pressure test reports.

NDE and other specified examinations are included in the final certification if requested.

All valves are hydrostatically pressure tested in accordance with ISO 14313/API 6D under the control of the Quality Department.

A complete range of equipment and instrumentation is available to perform both standard and special test requirements.





## TRADEMARK INFORMATION

CAMERON® is a registered trademark which is owned by Cameron.

This document contains references to registered trademarks or product designations, which are not owned by Cameron.

Trademark	Owner
Inconel	Special Metals Corporation
Stellite	Stoody Deloro Stellite, Inc.
Teflon	E.I. DuPont De Nemours & Company



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