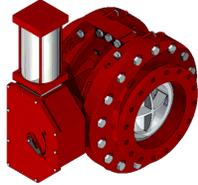


**ROSS
VALVE**



BLV
AWWA BALL VALVES

SUBMITTAL

PROJECT NAME: _____

PROJECT NUMBER: _____

SUBMITTAL DATE: _____

ENGINEER STAMP / COMMENT AREA

1-855-ROSS VALVE

ROSS TECHNOLOGY PARK
79 102ND STREET TROY NY 12181
OFFICE 518-274-0961 FAX 518-274-0210
WWW.ROSSVALVE.COM



Project Name:

Contractor:

Size:



ROSS VALVE AWWA BALL VALVE MODEL BLV-M

SUBMITTAL NOTES PAGE

Application/Service

Application (Service):

- Pump Control/Check ROFC (Rate of Flow) Pressure Reduction
 Pressure Sustaining Isolation (Guard)

Modulating/Throttling:

- Modulating (Responding to Digital Analog) Throttling (Responding to Discrete Contacts)

Medium:

- Finished Water Raw Water Reclaimed Water
 Treated Effluent Screened Sewage Raw Sewage

AWWA Ball Valve

Rated Pressure Class:

- 150 (DI) 250 (DI) 300 (CS) Other: Specify Working Pressure _____

Seats (Bronze/Monel):

- 1 Seat (LP End Only) 2 Seat (Both Ends)

Flange Class:

- ASME 125 LB ASME 150 LB ASME 250 LB ASME 300 LB PN10 PN16 PN25

Flange Finish:

- Flat Face Raised Face Serrated
 Back Faced O-Ring Groove Other: Specify _____

Valve Operating Mechanism

Valve Operating Mechanism (90° Turn Worm Gear):

- Rotork Gears IW72 360:1
 Other



Actuator Orientation:

- H1 H2 H3 H4 V1 V2 V3 V4

Valve Actuator

Cylinder Actuator:
 Water Oil Tandem Air/Oil Electrohydraulic: MIH Trident or RHF SCUBA
 Cylinder Diameter _____" Cylinder Stroke _____
 Pressure (PSI) Min _____ Max _____ Open/Close Time _____ seconds

Electric Motor:
 Brand _____
 Voltage _____ VAC, _____ ϕ , _____ Hz or _____ VDC Open/Close Time _____ seconds

Manual
 Brand Rotork Gears IW _____
 Handwheel/2" Square Nut Rotation Counter Clockwise (CCW) Clockwise (CW)
 Direction of Handwheel Rotate to Open Rotate to Close

Auxiliary Manual:
 Handwheel Rotation: Counter Clockwise (CCW) Clockwise (CW)
 Direction of Handwheel: Rotate to Open Rotate to Close

Materials of Construction – Major Components

AWWA Ball Valve Body Halves/Shell:
 Gray Iron Ductile Iron Cast Steel Welded Fabricated Steel Other: Specify _____

Body Bushing:
 B505 C95400 Bronze B584 C95400 Bronze B505 C86300 Bronze B584 86300 Bronze

Cone Valve Ball:
 Gray Iron Ductile Iron Cast Steel Welded Fabricated Steel Other: Specify _____

Ball Bushing:
 304 Stainless Steel 316 Stainless Steel B584 C86300 Bronze B584 C90300 Bronze

Body End Pieces:
 Gray Iron Ductile Iron Cast Steel Welded Fabricated Steel Other: Specify _____

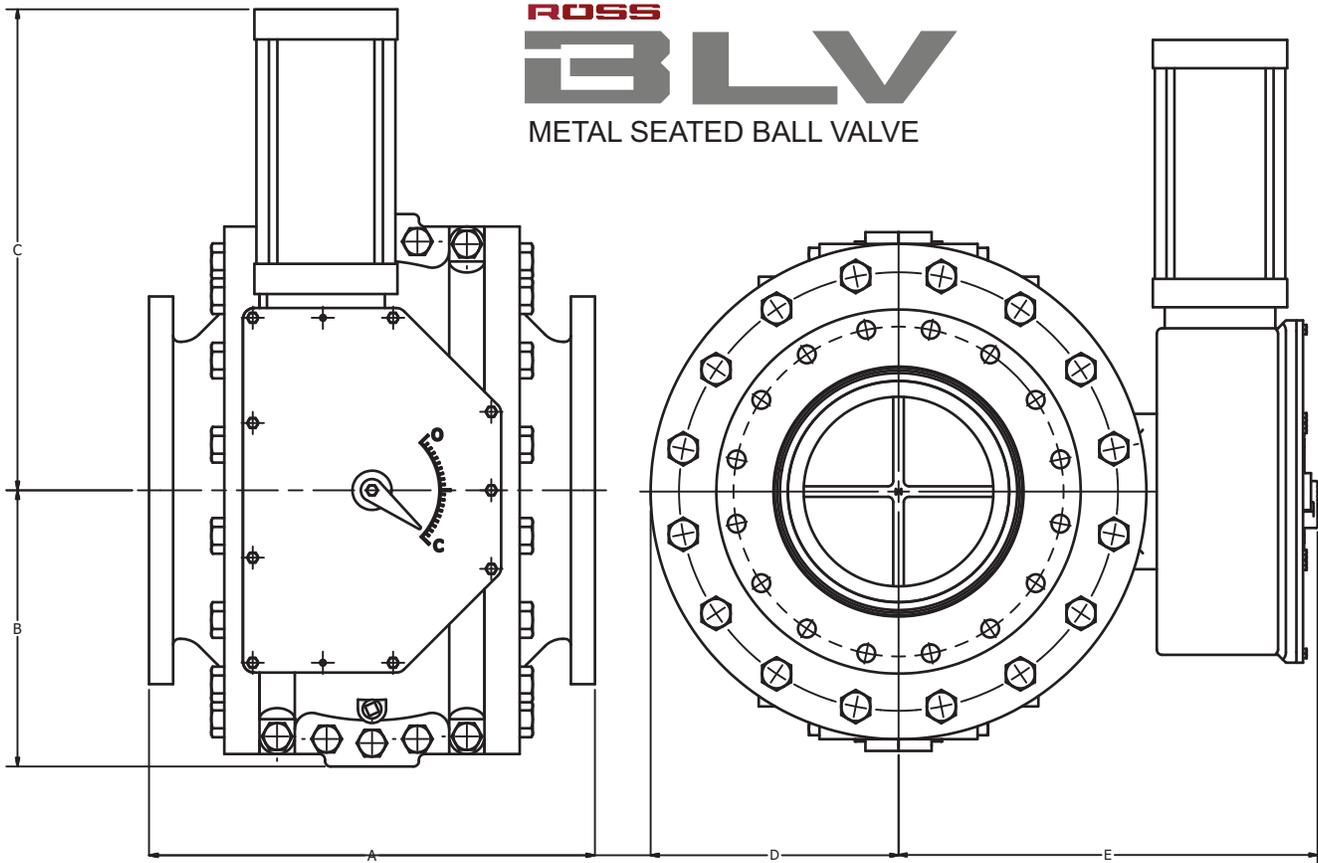
Ball Seat: Bronze C95400 304 Stainless Steel 316 Stainless Steel

Body Seat: MONEL – ERNiCu-7 (MONEL 60)

Valve Coatings

Two (2) coats (minimum DFT 4 mils per coat) of an NSF Certified Epoxy (Tnemec Series N140F) have been applied to the interior and exterior ferrous surfaces of the valve in accordance with ANSI/NSF Standard 61, which conforms to AWWA D102 Inside System No. 1.

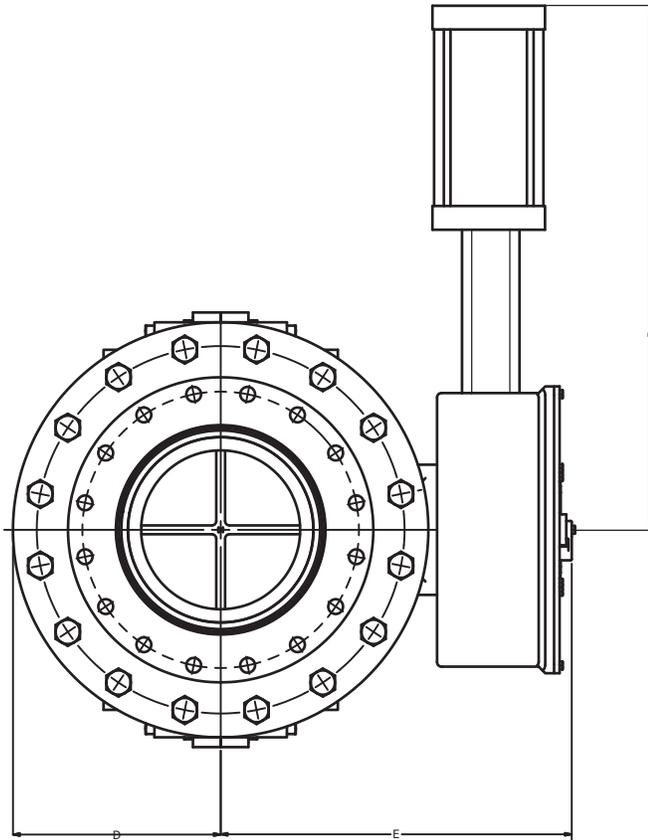
Metal Seated Ball Valve : Data



GENERAL DIMENSIONS (INCHES) [CYLINDER ACTUATOR]

SIZE	OALL (F TO F)		FLANGE THICKNESS		FLANGE OD		B	C	D	E	ESTIMATED WEIGHT (LB)
	A		125 LB	250 LB	125 LB	250 LB					
	125 LB	250 LB									
6	15 3/4	16 5/8	1	1 7/16	11	12 1/2	9	28 1/2	8 1/4	21 3/4	1,050
8	18	19	1 1/8	1 5/8	13 1/2	15	10 1/8	28 1/2	9 1/2	23	1,250
10	18 1/8	19 1/2	1 3/16	1 7/8	16	17 1/2	11 7/8	28 1/2	11	24 1/4	1,550
12	21	22 1/2	1 1/4	2	19	20 1/2	12 3/4	28 1/2	12	25	2,000
14	26 1/4	27 3/4	1 3/8	2 1/8	21	23	15 1/2	36	15	28	2,600
16	27	28 5/8	1 7/16	2 1/4	23 1/2	25 1/2	16 1/4	36	16	31 1/2	3,350
18	29	30 5/8	1 9/16	2 3/8	25	28	19 1/4	36	18 1/2	33	4,100
20	32	33 5/8	1 11/16	2 1/2	27 1/2	30 1/2	20	36	19 3/4	35	5,200
24	37	38 3/4	1 7/8	2 3/4	32	36	23 1/2	47 1/2	24 1/4	40	7,500
30	46	47 3/4	2 1/8	3	38 3/4	43	29 3/4	47 1/2	26 1/2	50	13,000
36	54	56	2 3/8	3 3/8	46	50	35 3/4	47 1/2	29 1/2	53	17,500
42	59 1/2	61 5/8	2 5/8	3 11/16	53	57	42	63	33	60	24,000
48	72	74 1/2	2 3/4	4	59 1/2	65	48	63	36	63	31,500

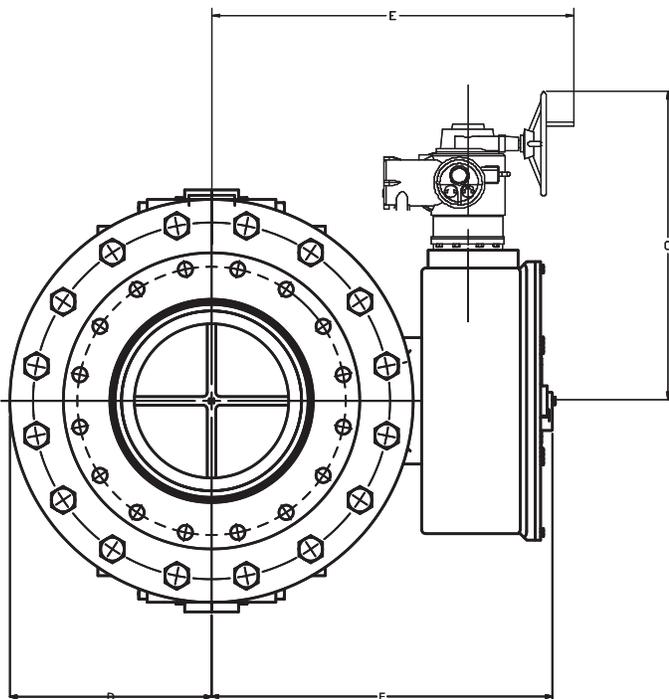
Metal Seated Ball Valve : Data



ROSS
BLV

METAL SEATED BALL VALVE

TANDEM AIR/OIL ACTUATOR			
SIZE	C	E	ESTIMATED WEIGHT (LB)
6	38 1/2	21 3/4	1,150
8	38 1/2	23	1,400
10	38 1/2	24 1/4	1,750
12	38 1/2	25	2,250
14	53	28	2,925
16	53	31 1/2	3,500
18	53	33	4,250
20	53	35	5,500
24	75 1/2	40	7,750
30	75 1/2	50	13,750
36	75 1/2	53	18,750
42	108	60	26,000
48	108	63	34,500



ROSS
BLV

METAL SEATED BALL VALVE

ELECTRIC ACTUATOR			
SIZE	C	E	ESTIMATED WEIGHT (LB)
6	25 1/2	28 1/2	1,000
8	25 1/2	30 1/4	1,200
10	25 1/2	31 1/2	1,500
12	25 1/2	32 1/4	1,950
14	34	35 1/4	2,500
16	34	38 3/4	3,200
18	34	40 1/2	4,000
20	34	42 1/2	5,100
24	42	47 1/2	7,350
30	42	57 1/2	12,800
36	42	60 1/2	16,750
42	53	67 1/2	23,000
48	53	70 1/2	30,500

**AWWA BALL VALVE (BLV-M)
METAL TO METAL SEATED - TRUNNION MOUNTED
BILL OF MATERIAL/MATERIAL SPECIFICATIONS**

AWWA BALL VALVE ASSEMBLY

ITEM	QTY	DESCRIPTION	MATERIAL
1	1	BODY HALF - TRUNNION END	DUCTILE IRON – ASTM A536 65-45-12
2	1	BUSHING – BODY	BRONZE - C95400
3	1	ALIGNMENT PIN	BRONZE - C95400
4	1	"O"-RING	RUBBER - BUNA-N-70
5	1	JAM NUT	STEEL - GR 5
6	1	SETSCREW - SQ. HD.	STEEL - GR 8
7	1	BALL	DUCTILE IRON – ASTM A536 65-45-12
8	1	SHAFT – OPERATING	STAINLESS STEEL – ASTM A564 630 H1150
9	1/2	DOWEL PIN	STEEL – HARDENED ALLOY – 4140
10	2	BUSHING – BALL	STAINLESS STEEL – ASTM A312/A511 – 304
11	1	ALIGNMENT WASHER	BRONZE - C95400
12	1/2	BALL SEAT	BRONZE - C95400
13	1/2	"O"-RING	RUBBER - BUNA-N-70
14	A/R	BALL SEAT - CAPSCREWS - HEX SOCKET HD	STAINLESS STEEL - ASTM A593 CW1 304
15	2	"O"-RING	RUBBER - BUNA-N-70
16	1	BODY HALF - TRUNNION END	DUCTILE IRON – ASTM A536 65-45-12
17	1	BUSHING – BODY	BRONZE - C95400
18	2	TAPER PIN	STEEL
19	A/R	BODY HALF - CAPSCREWS - HEX HD	STEEL - GR 8
20	A/R	BODY HALF - HEX NUTS	STEEL - GR 8
21	1	"VEE" PACKING	COTTON FABRIC/NITRILE – 432/435
22	1	PACKING GLAND	BRONZE - C95400
23	2	"O"-RING	RUBBER - BUNA-N-70
24	2	BODY END PIECE W/WELD OVERLAYED MONEL SEAT	DUCTILE IRON – ASTM A536 65-45-12
25	2	BODY END PIECE WELD OVERLAYED MONEL SEAT	MONEL - ERNiCu-7 (MONEL 60)
26	A/R	BODY END PIECE CAPSCREWS - HEX HD	STEEL - GR 8
27	4	TAPER PIN	STEEL

VALVE OPERATING MECHANISM ASSEMBLY

31	1	VALVE OPERATING MECHANISM HOUSING	DUCTILE IRON – ASTM A536 65-45-12
32	4/8	CAPSCREW	STEEL – GR 5
33	2	DOWEL PIN	HARDENED STEEL
34	1	OPERATING LEVER	DUCTILE IRON – ASTM A536 65-45-12
35	1	KEY	STEEL - C1018 CF
36	2	LINK	STEEL - C1018 CF
37	4	BUSHING - LINK	BRONZE - OILITE
38	1	TRAVELING NUT - CROSSHEAD	BRONZE - C86300
39	2	SLIDER	BRONZE - C95400
40	1	VALVE OPERATING MECHANISM HOUSING COVER	DUCTILE IRON – ASTM A536 65-45-12
41	1	BUSHING - COVER	BRONZE - OILITE
42	A/R	CAPSCREW - COVER	STEEL – GR 5
43	2	DOWEL PIN	HARDENED STEEL
44	1	INDICATOR POINTER	CAST GRAY IRON ASTM A126 CL B
45	1	CAPSCREW - INDICATOR POINTER	STEEL – GR 5

VALVE ACTUATOR

50	1	ACTUATOR	SEE ACTUATOR SUBMITTAL
51	1	MOUNTING ADAPTER	STEEL - ASTM A36
52	4	CAPSCREW - HEX SOCKET HEAD	STEEL - GR 8
53	4	CAPSCREW - HEX HEAD	STEEL - GR 5
54	1	THREADED ROD EXTENSION	STAINLESS STEEL - 304
55	2	FLAT WASHER	STEEL
56	2	JAM NUT	STEEL



POTA-POX® PLUS SERIES N140F

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamidoamine Epoxy

COMMON USAGE Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.

COLORS 1211 Red, 1255 Beige, 00WH Tnemec White, 15BL Tank White, 39BL Delft Blue, 35GR Black. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

SPECIAL QUALIFICATIONS Certified by **NSF International** in accordance with **NSF/ANSI Std. 61**. Ambient air cured Series N140F is qualified for use on tanks and reservoirs of 1,000 gallons (3,785 L) capacity or greater, pipes 18 inches (46 cm) in diameter or greater and valves four (4) inches (10 cm) in diameter or greater. Series N140F is certified by **NSF International** in accordance with **NSF/ANSI Std. 50** for pools and other recreational water facilities. Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2**. Contact your Tnemec representative for systems and additional information. A two-coat system at 4.0-6.0 dry mils (100-150 dry microns) per coat passes the performance requirements of MIL-PRF-4556F for fuel storage. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.

PERFORMANCE CRITERIA Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS Self-priming, 22, 91-H₂O, 94-H₂O, L140, L140F, N140, V140, 141

TOPCOATS **Interior:** Series 22, FC22, L140, L140F, N140, N140F, V140, V140F, 141, 406
Exterior: Series 27, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, L140, L140F, N140, N140F, V140, V140F, 156, 157, 161, 175, 180, 181, 446, 740, 750, 1028, 1029, 1074, 1074U, 1075, 1075U, 1077, 1078, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following recoat times apply for Series N140F: Immersion Service—Surface must be scarified by blasting with fine abrasive after 30 days. Atmospheric Service—After 30 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140F is 14 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

PRIMED STEEL **Immersion Service:** Scarify the epoxy prime coat surface by abrasive blasting with fine abrasive before topcoating if it has been exterior exposed for 30 days or longer and N140F is the specified topcoat.

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

CAST/DUCTILE IRON Contact your Tnemec Representative or Tnemec Technical Services.

CONCRETE Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6, ICRI-CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 215 or 218.

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 68.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 10.0 mils (50 to 225 microns) per coat. **Note:** MIL-PRF-4556F applications require two coats at 4.0-6.0 mils (100-150 microns) per coat. Otherwise, the number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME AT 5 MILS DFT

Temperature	To Handle	To Recoat	Immersion
75°F (24°C)	4 hours	5 hours	7 days
65°F (18°C)	7-8 hours	9-11 hours	8 days
55°F (13°C)	12-14 hours	16-20 hours	9-10 days
45°F (7°C)	18-22 hours	28-32 hours	12-13 days
35°F (2°C)	28-32 hours	46-50 hours	16-18 days

Curing time varies with surface temperature, air movement, humidity and film thickness.
Note: For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure. **Note:** Refer to product listings on www.nsf.org for specific potable water return to service information.

VOLATILE ORGANIC COMPOUNDS

Unthinned: 2.3 lbs/gallon (273 grams/litre)
Thinned 5% (#60): 2.5 lbs/gallon (299 grams/litre)
Thinned 10% (#4): 2.7 lbs/gallon (323 grams/litre) †

HAPS

Unthinned: 2.3 lbs/gal solids
Thinned 5% (#60): 2.3 lbs/gal solids
Thinned 10% (#4): 3.1 lbs/gal solids

THEORETICAL COVERAGE

1,094 mil sq ft/gal (26.8 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS

Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

PACKAGING

5 gallon (18.9L) pails and 1 gallon (3.79L) cans — Order in multiples of 2.

POTA-POX® PLUS | SERIES N140F

NET WEIGHT PER GALLON	12.68 ± 0.25 lbs (5.75 ± .11 kg) (mixed) †
STORAGE TEMPERATURE	Minimum 20°F (-7°C) Maximum 110°F (43°C) For optimum application properties, material temperature should be above 60°F (16°C) prior to application.
TEMPERATURE RESISTANCE	(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)
SHelf LIFE	Part A: 24 months; Part B: 12 months at recommended storage temperature.
FLASH POINT - SETA	Part A: 82°F (28°C) Part B: 80°F (27°C)
HEALTH & SAFETY	Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product. Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry MILS (Microns)	Wet MILS (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	6.0 (150)	9.0 (230)	182 (16.9)
Minimum	2.0 (50)	3.0 (75)	545 (50.7)
Maximum	10.0 (225)	15.0 (375)	109 (10.1)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. †

MIXING

1. Start with equal amounts of both Parts A & B.
2. Using a power mixer, separately stir Parts A & B.
3. Add Part A to Part B under agitation, stir until thoroughly mixed.
4. Both components should be above 50°F (10°C) prior to mixing. For application to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand thirty (30) minutes and restir before using. For optimum application properties, blended components should be above 40°F (4°C).

THINNING

N140F: Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 4 Thinner or thin up to 5% or 1/4 pint (190 mL) per gallon with No. 60 Thinner. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution: Series N140F NSF certification is based on thinning with No. 4 or No. 60 Thinner for tanks and only No. 60 Thinner for pipe and valves.** Use of any other thinner voids NSF/ANSI Std. 61 certification. V140F: Use No. 4 Thinner. **Caution: Series V140F NSF certification is based on thinning with No. 4 Thinner only.** Use of any other thinner voids NSF/ANSI Std. 61 certification. **Note:** When using Series V140F, a maximum of 4.5% of No. 4 Thinner may be used to comply with VOC regulations.

POT LIFE

2 hours at 50°F (10°C) 1 hour at 75°F (24°C) 30 minutes at 100°F (38°C)

SPRAY LIFE

30 minutes at 75°F (24°C)

Note: Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	75-100 psi (5.2-6.9 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	3000-4800 psi (207-330 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 135°F (57°C)

The surface should be dry and at least 5°F (3°C) above the dew point. Coating won't cure below minimum surface temperature.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or MEK.

† Values may vary with color.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.



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ROSS VALVE MANUFACTURING CO., INC. AWWA C507 BALL VALVE (MSBV) TYPICAL SUGGESTED SPECIFICATIONS

GENERAL: The AWWA C507 ball valve shall be Metal to Metal Ball Valve (Model MSBV) as manufactured by Ross Valve Manufacturing Co., Inc. It shall be a full-ported valve (Pressure Class 150 – 175 psi maximum differential pressure (cast iron) or Pressure Class 250/300 – 350 psi maximum differential pressure (ductile iron)) and shall be complete with valve operating mechanism, valve actuator and accessories as specified herein.

OPERATION: Operation of the AWWA ball valve shall employ an eccentric offset (90) degree rotary motion to rotate the valve ball from its seated position and rotate the ball 90° to open the valve and align the ball and body waterways in the open position. Closing movement of the valve ball shall be in reverse order. It shall be designed to operate satisfactorily at the head and flow conditions specified.

VALVE CONSTRUCTION: Valve body shall be provided with integrally cast trunnions, and end pieces with seat ring(s) of Monel metal (ERNiCu-7 (Monel 60)) electrically fused to the body end piece(s) waterway and sufficiently raised above the internal surface of the body to assure free operation. Valve body and Monel seats shall be constructed on an eccentric offset of not less than 2°. Body end piece seat ring(s) shall be of sufficient width such that seat contact pressure shall not exceed 2,000 psi at Pressure Class 250/300 – 350 psi maximum differential pressure based on projected area of body seat ring. AWWA ball valves shall be equipped with a single set of seats for uni-directional sealing in one (1) direction only or two (2) sets of seats for bi-directional sealing in both directions. Trunnion bushings in the body shall be **NO LEAD** bronze and shall mate with stainless steel bushings on the ball trunnions. Trunnion bushings shall be of sufficient diameter and length such that trunnion bushing contact pressure with ball trunnion bushing shall not exceed 2,000 psi at Pressure Class 250/300 – 350 psi maximum differential pressure based on projected contact area of trunnion bushing with the AWWA C507 ball valve in the fully closed & seated position. Trunnion bushing diameter (D) must be not less than 1-3/4 x bushing length (L). The valve shall be complete with ASME B16.1 Class 125 or 250 (cast gray iron) or ASME B16.42 Class 150 or 300 (cast ductile iron) flanges to mate with adjacent equipment.

Valve ball shall be of “skeletal” type construction consisting of two (2) intersecting pipes with generous ribbing as required and with integrally cast trunnions. It shall have a set of stainless steel or bronze seat (seal) rings attached to ball by adjustable threaded connection sufficiently raised above the “skeletal” surfaces of the ball to assure free operation. AWWA ball valves shall be equipped with a single set of seats for uni-directional sealing in one (1) direction only or two (2) sets of seats for bi-directional sealing in both directions. Ball seat(s) shall be constructed on an eccentric offset of not less than 2°. Ball seat (seal) rings shall be of sufficient width such that seat contact pressure shall not exceed 2,000 psi at Pressure Class 250/300 – 350 psi maximum differential pressure based on projected area of body seat ring. Trunnion bushings on the ball shall be stainless steel and shall mate with bronze bushings in the body. Trunnion bushings shall be of sufficient diameter and length such that trunnion bushing contact pressure shall not exceed 2,000 psi at Pressure Class 250/300 – 350 psi maximum differential pressure based on projected contact area (D x L) of trunnion bushing with the AWWA C507

ball valve in the fully closed & seated position. Trunnion bushing diameter (D) must be not less than 1-3/4 x bushing length (L).

Valve body/head bronze and plug stainless steel bushings shall be retained solely by heavy press/shrink fits w/o requiring the aid of any additional mechanical retention devices such as setscrews, pins, etc. Use of such mechanical retention devices shall not be permitted. Valve body trunnions shall be equipped with grease lubrication fittings for the purpose of lubricating the bronze/stainless steel trunnion bushings using externally located & readily accessible grease lubrication fittings. Valve body bronze bushings shall be **NO LEAD** bronze alloy C95400 and shall be equipped with spirally generated double loop grease groove pattern on ID of bushings with an external groove on OD at centerline with two (2) through holes to grooves 180° apart (opposed) coincident with intersection of double loop grease groove pattern. Additionally, trunnion bushings shall be lubricated with an appropriate Food Grade Lubricant (FGL) such as Lubriplate NSF-H-1 Registered Products FGL-2 or equal.

All AWWA C507 ball valve castings shall be ASTM A126 Class B cast iron or ASTM A536 Grade 65-45-12 ductile iron.

Valve operating shaft shall be stainless steel ASTM A564 630 H1075 with 125,000 psi minimum yield strength, and shall be pinned to the plug. The packing shall be Chevron “VEE” type fiber and graphite with a bronze packing gland.

VALVE OPERATING MECHANISM CONSTRUCTION: The valve operating mechanism shall be of the compound link/lever traveling nut type, totally enclosed in a ductile iron ASTM A536 Grade 65-45-12 housing with a separate mounting adapter to assure proper alignment. The housing shall be designed for either right or left hand actuator mounting. The valve operating mechanism cover shall be ductile iron ASTM A536 Grade 65-45-12 and make a pinned connection to the valve operating mechanism housing. The valve operating mechanism cover shall be bronze bushed where the valve operating shaft extends into it. The traveling nut crosshead shall be of bronze B584 C86300 and shall travel in fully machined ways in the valve operating mechanism housing and cover. An indicator shall be mounted on the end of the valve shaft for the local position indication.

VALVE ACTUATOR: Valve actuator shall be sized to operate the valve from full open to full closed under the most adverse actual project head and flow conditions. The valve manufacturer shall be responsible for sizing electrical or cylinder actuators based on the head and flow conditions including a 25% minimum safety factor.

COATINGS: All interior wetted surfaces of AWWA C507 ball valve including ball, body interior and end piece interior shall be prepped to SSPC – SP10 (near white metal) followed within seventy two (72) hours by two (2) coats of contrasting colors 4 to 6 mils DFT each 8 to 12 mils TDFT of two (2) part liquid epoxy coating (TNEMEC's Pota-Pox™ Plus Series N140F). All exterior non wetted surfaces of AWWA C507 ball valve including valve operating mechanism exterior and interior and all related parts including valve operating mechanism mounting adapter and valve actuator mounting adapter shall be prepped to SSPC – SP10 (near white metal) followed within seventy two (72) hours by a single coat 3 to 5 mils DFT of universal primer (TNEMEC's Pota-Pox™ Plus Series N140F). **DO NOT PREP OR COAT** any bronze, stainless steel or other non-ferrous or non-metallic surfaces. **ALL** final exterior top coats on non-wetted surfaces of AWWA C507 ball valves are to be applied in the field by others as specified.

TESTING: AWWA C507 valve body including end pieces shall be hydrostatically tested for 10 minutes at a test pressure of one and one-half times maximum working pressure for which the valve is intended. Under test, parts shall show no evidence of distress and shall be free from any leaks. When fully shop assembled, each AWWA C507 ball valve seat shall be leak tested at the maximum working pressure for which the valve is intended. Leakage shall not exceed maximum limits as defined by AWWA C507 for metal-seated valves.

ROSS 1879 VALVE



BLV

METAL SEATED BALL VALVE ROSS MODEL BLV-507

SIZES: 6 [in] - 60 [in]

APPLICATION:

For Pump Control / Check, Flow and Pressure Control Service

FLANGE CLASS:

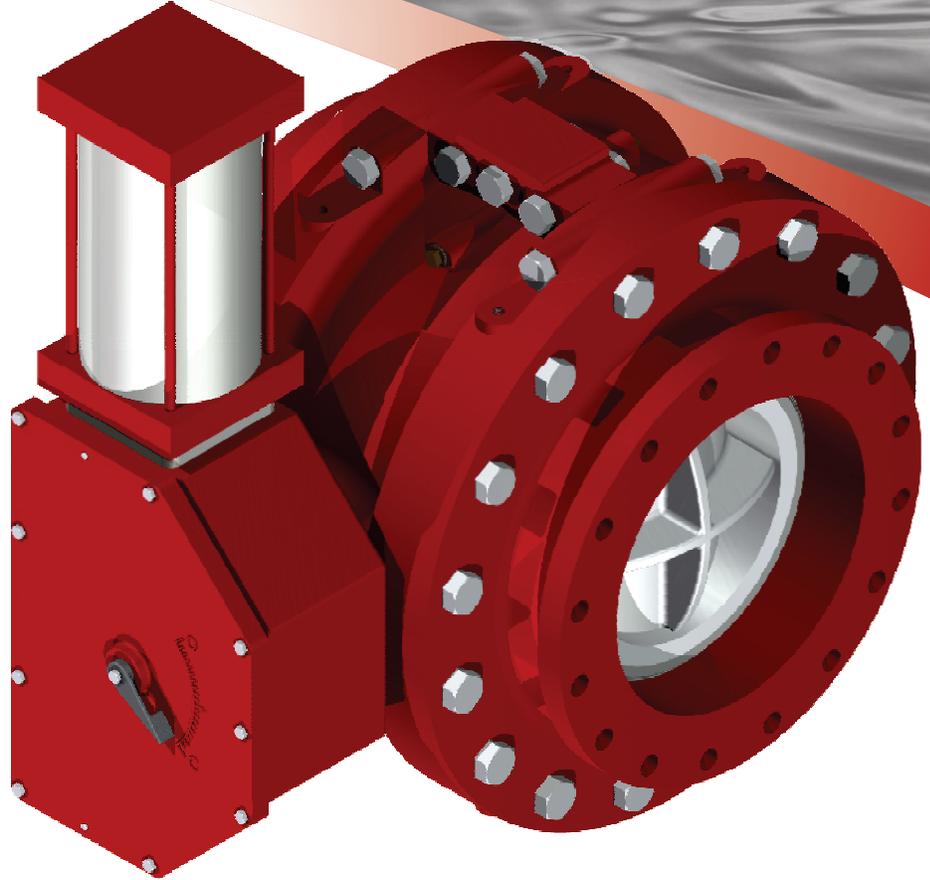
ANSI B16.1 CL 125 or CL.250

PRESSURE CLASS:

150, 250 or 300 per AWWA C507

COATINGS:

NSF-61 Approved Coating



100% MADE IN U.S.A.

Features:	Benefits:
Metal Seats	Capable of handling the toughest service No wedging, galling or scraping seats
Compact Body with Integral Flanges	Significantly smaller lay length Reduced deflection under operating conditions
100% Full Port Waterway	No more head loss than an equivalent length of pipe Reduced energy consumption
Trunnion Mounted Ball	Pressure assisted seals Capable of handling pressures in excess of 300 [psi] Shaft becomes rotary element only Reduced Vibration
Compound Link and Lever Operating Mechanism	Utilizes full mechanical advantage Allows for precise variable ball rotation Flow control over entire rotation
Ball Design	Self-cleaning, non clogging ball Less down time in the system due to maintenance



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TROY NY 12181

518.274.0961

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Technical Resources:

- Dynamic Fluid Modeling
- Pattern Shop & 2 Foundries
- Machine Shops & CNC Centers
- Hydro Test Facilities
- Pre-Packaged Vault Design/Build Center

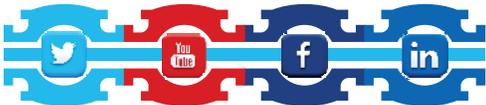
When George Ross founded our company in 1879, he made Automatic Control Valves that were designed to last. He also created a company built on enduring values: integrity of design and engineering, quality of materials, craftsmanship in manufacturing, a high level of customer service, and flexible business systems that have evolved with changes in technology and industries we serve.

Still located in Troy, NY USA, Ross Valve has grown to become an internationally renowned manufacturer, and expanded to our 15 acre Ross Technology Park to better serve our customers. As a 6th generation family operated business, there is an intense commitment to assure that all of our equipment is top quality and meets the highest standards and expectations of our customers.

Ross Valve has committed to manufacturing some of the industry's most durable and accurate control valves for over 135 years and serves the municipal water and wastewater, hydro power, industrial and firefighting industries.

Ross Valve "Quality and Innovation Since 1879"
100% Made in USA

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ROSS VALVE

1879

Ross Valve Mfg. Co., Inc.

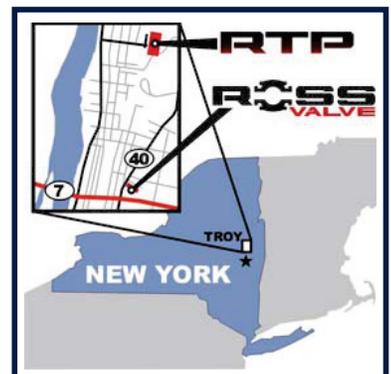
P.O. Box 595, Troy, NY 12181-0595, USA

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Email: sales@rossvalve.com • www.rossvalve.com



All Ross Valves meet or exceed all current AWWA standards for construction and pressure ratings.
BLV PDF 2016 0



Ross Valve manufactures all its products in Troy, NY. Our corporate headquarters are now located in the newly expanded Ross Tech Park.