



Operating Instructions

A-2600 SERIES AWWA SWING CHECK VALVE



500 West Eldorado Street

Decatur, Illinois 62522

www.muellercompany.com

! WARNING !

1. Read and follow all pertinent instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage.
2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.
4. Valves are to be handled by experienced installers. Valves should never be used as structural members and should be appropriately rigged for lifting. Valves are heavy and include various accessories which should be handled with caution.

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MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

Application and Installation

APPLICATION

Mueller® A-2600 Series AWWA Swing Check Valves are self-contained, free-swinging disc style (gravity), outside lever and weight, or outside lever and spring. Valves conform to all standards as set forth in AWWA C508. Suitable for use in wastewater, water and sewage applications.

SAFETY MEASURES

“Warning” and “Caution” messages indicate procedures that must be followed exactly to avoid equipment/property damage, physical injury or possibly death. Safety labels on the product indicate hazards that can cause equipment/property damage, physical injury or possibly death.

INSTALLATION

1. Check that valve end joints conform to the mating pipe and verify that ends are clean and sound. All 2600 Series valves are supplied with flat faced flanges with ANSI B16.1 Class 125 drilling. Do not mate these valves to pipe or fitting with raised face flanges.
2. Remove any material used to restrain the lever (if equipped) or pin during shipment and storage. Attach any outside closing mechanism (if equipped) in proper position manually.
3. Closing mechanism should be checked to ensure freedom of motion and proper operation.
4. When handling valve, do not use outside mechanisms for lifting.
5. It is necessary to install the valve in proper orientation with regard to flow direction as indicated by arrow on side of body.
6. Prepare pipe ends per pipe manufacture’s instruction and install valve as per appropriate instructions for the specified joint. All piping should be properly supported to avoid line stress being transferred to valve. Do not use valve as a jack to force pipeline into position.
7. Standard wrenches and/or sockets are to be used to tighten all nuts and bolts. Fasteners are to be tightened in a “star pattern” to ensure balanced loading of bolts.

STORAGE

All valves should be inspected at time of delivery for shipping damage, missing parts, and conformance with specifications.

Valves should be stored in a sheltered area, or covered with water-proof covering, to prevent contamination by weather or dirt. Valves should remain with original shipping containers or skids, or stored on a flat surface with weight supported evenly by the flange face. Do not store valves on the shaft ends or bushing housing. Protect rubber seated valves from ozone and hydrocarbons (solvents, paints and oils, etc.)

OPERATION

Once in the pipeline, the swing check valve will open and close as flow conditions dictate. The valve will open as the pressure on the upstream side of the disc overcomes the downstream side. The valve will close as the situation reverses itself or the pressure equalizes.

These valves are self-contained units. Outside levers, weights, springs or hinge pins should never be used to manually operate the valve or restrict its operation.

External shields and surrounding piping should not interfere with free operation of external apparatus of the valves.

MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

Maintenance and Troubleshooting

MAINTENANCE

! WARNING !

To prevent injury to operator or damage to valve and/or property, valve must be isolated and line pressure relieved from both sides of valve before opening valve cover or attempting any repairs to valve seals or mechanism. O-rings should not be changed or added on an active valve.

The system is designed to be trouble-free with minimum care. Frequency of inspection should be based upon the operational characteristics of the system, i.e. systems of high cycles should be inspected more frequently. At minimum semi-annual inspections are recommended.

A. Points of inspection should be at a minimum:

1. All end joints, cover joints and packing boxes for leakage.
2. Bolts for tightness.

3. Inspection of valve during operation is recommended so that outside linkage can be inspected for proper operation.
4. O-rings: inspection of packing box is required to assure no leakage is evident. If leakage exists, replace O-rings – do not tighten end plug in an attempt to stop leakage.
5. Inspection of interior of valve is not necessary unless improper operation is witnessed or leakage beyond the allowable rate is experienced. The interior of the valve and the internal components can be inspected by removing the valve cover. Cover gasket should be replaced any time this joint is broken. Never re-install a used cover gasket.

TROUBLESHOOTING

Possible Malfunction	Symptoms/Cause	Corrective Action
Cover gasket leakage	Relaxed cover bolts tension	Tighten bolts in "star pattern." Should leakage continue, replace gasket.
Valve slams when closing (Spring)	Tension on Spring is loose.	Tighten Spring Adjustment Bolt
Valve slams when closing (Weight)	Weight is not located on Arm properly	Reposition Weight as necessary
Seat leakage	Seats dirty Disc Seat damaged	Remove inspection cover and flush Replace (also see below)
Leak by Hinge Pin	Cracked or broken O-rings	Replace O-ring(s)
Vibration/Noise	Flow rate too high Loose disc mounting Loose Lever	Correct application Tighten Stud/Nut Tighten Lever
End Gasket leakage	Pipe misalignment Unsupported pipe load Improper Gasket or installation Uneven tightening torque	Realign pipe Support pipe Replace/reinstall Retighten using "star pattern"

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Repairs

REPAIRS

Seat leakage – Seats may be “fluid cut” requiring seat replacement. Check for debris caught in valve, pits or irregularities on seat mating surfaces. Also check for pipe deflection which could result in valve seat distortion.

Disc Repairs – Inspect disc for scratches, pits or damage. Replace rubber disc seats if worn or torn. Minor scratches on bronze disc seats can sometimes be removed by rubbing the disassembled seat against very fine emery cloth on a perfectly flat surface.

REASSEMBLY

1. Remove rust and dirt from parts using a wire brush, emery cloth or other suitable means (on epoxy coated valves, avoid scratching or damaging coating). Remove oil and grease using a suitable solvent (if rubber seated, avoid solvent contact).
2. Check all replacement parts for proper size, especially gaskets and O-rings.
3. Refer to illustrations in catalog to aid in reassembling disc, hinge and stuffing boxes, according to the year date and style of valve being repaired.
4. Check rotation of disc on clapper and alignment of disc on body seat. When properly installed, movement should be free and unobstructed.
5. Install new cover gasket.
6. Tighten cover bolts using “star pattern.”

CONTACT INFORMATION

To obtain service or order parts call the
Mueller Customer Service Center 1-800-423-1323
Fax 1-217-425-7537

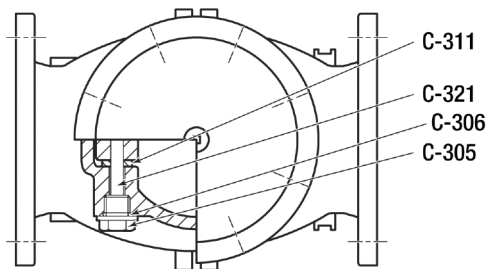
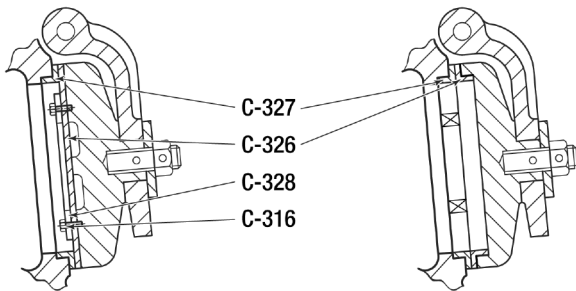
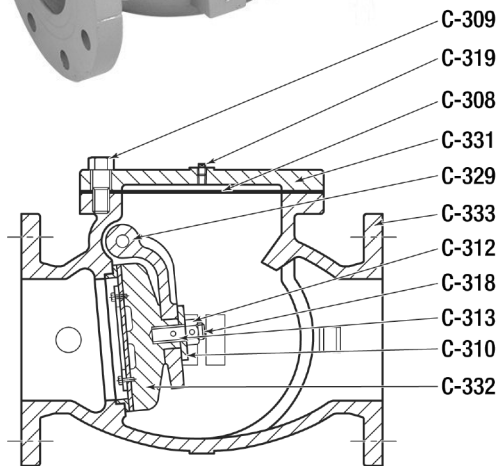
Please provide the following information:

Mueller Co. Order Number
Valve Catalog Number
Valve Serial Number (if applicable)
Year Date on valve
Style of valve (gravity, lever/weight or lever/spring)

MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

Gravity Operated Swing Style Check Valve Parts

2"–12" GRAVITY OPERATED SWING STYLE CHECK VALVE



- C-305** Hinge Plug – Brass ASTM B21
- C-306** O-ring – Rubber ASTM D2000, BK 707
- C-308** Gasket – Rubber ASTM D2000, BK 807
- C-309** Cover Bolt – Zinc Coated Steel ASTM A307, Grade B
- C-310** Washer – Brass ASTM B21
- C-311** Spacer – Brass ASTM B21
- C-312** Disc Nut – Brass ASTM B21
- C-313** Disc Stud – Brass ASTM B21
- C-318** Pin – Stainless Steel ASTM A276, Type 304
- C-319** Test Plug – Malleable Iron ASTM A47
- C-321** Hinge Pin – Stainless Steel ASTM A276, Type 304
- C-327** Body Seat Ring – Bronze ASTM B62
- C-329** Arm – Ductile Iron ASTM A536 Gr. 65-45-12
- C-331** Cover – Cast Iron ASTM A126 CL.B
- C-332** Disc – Cast Iron ASTM A126 CL.B
- C-333** Body – Cast Iron ASTM A126 CL.B

Rubber Faced Disc Parts

- C-316** Disc Seat Bolt – Stainless Steel ASTM A276, Type 304
- C-326** Disc Seat Ring – Rubber ASTM D2000, BK 807
- C-328** Seat Holder Cast Iron* ASTM A126 CL.B

Bronze Faced Disc Parts

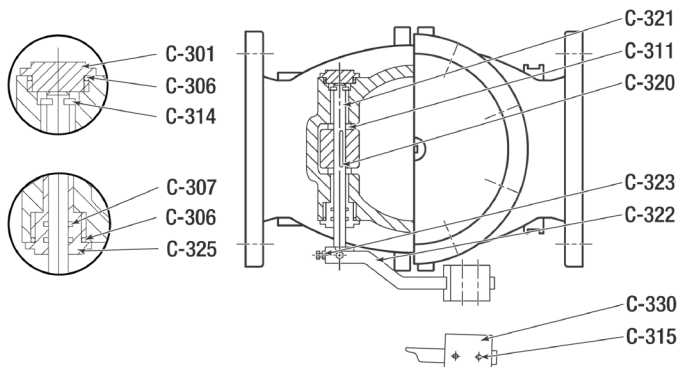
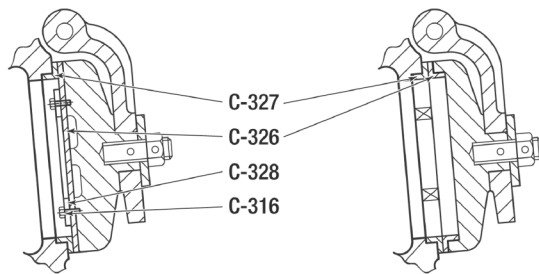
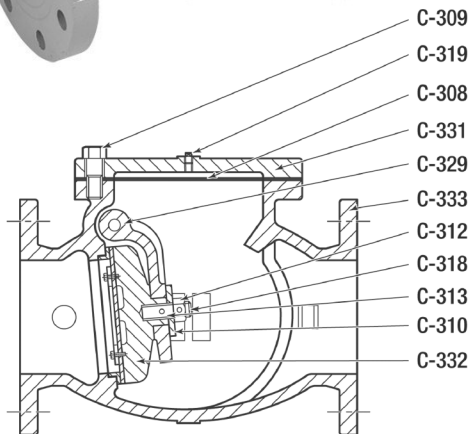
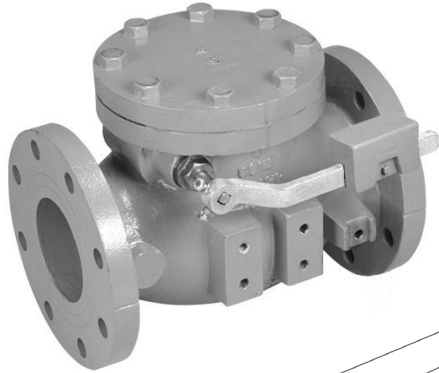
- C-326** Disc Seat Ring Bronze ASTM B62

*2" – 6" sizes are cast iron, ASTM A126 CL.B, 8" – 12" sizes are ductile iron ASTM A536 Gr. 65-45-12.

MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

2"–12" Swing Type Lever and Weight Check Valve Parts

2"–12" SWING TYPE LEVER AND WEIGHT CHECK VALVE



- C-301** Retaining Plug – Brass ASTM B21
- C-306** O-ring C – Rubber ASTM D2000, BK 707
- C-307** O-ring B – Rubber ASTM D2000, BK 707
- C-308** Gasket – Rubber ASTM D2000, BK 807
- C-309** Cover Bolt – Zinc Coated Steel ASTM A307, Grade B
- C-310** Washer – Brass ASTM B21
- C-311** Spacer – Brass ASTM B21
- C-312** Disc Nut – Brass ASTM B21
- C-313** Disc Stud – Brass ASTM B21
- C-314** Snap Ring – Stainless Steel ASTM A276, Type 420
- C-315** Weight Bolt & Nut – Zinc Coated Steel ASTM A307, Grade B
- C-318** Pin – Stainless Steel ASTM A276, Type 304
- C-319** Test Plug – Malleable Iron ASTM A47
- C-320** Key – Stainless Steel ASTM A276, Type 304
- C-321** Hinge Pin – Stainless Steel ASTM A276, Type 304
- C-322** Weight Arm – Ductile Iron ASTM A536 Gr. 65-45-12
- C-323** Bolt & Nut – Zinc Coated Steel ASTM A307, Grade B
- C-325** Seat Nut – Brass ASTM B21
- C-327** Body Seat Ring – Bronze ASTM B62
- C-329** Arm – Ductile Iron ASTM A536 Gr. 65-45-12
- C-330** Weight – Cast Iron ASTM A126 CL.B
- C-331** Cover – Cast Iron ASTM A126 CL.B
- C-332** Disc – Cast Iron ASTM A126 CL.B
- C-333** Body – Cast Iron ASTM A126 CL.B

Rubber Faced Disc Parts

- C-316** Disc Seat Bolt – Stainless Steel ASTM A276, Type 304
- C-326** Disc Seat Ring – Rubber ASTM D2000, BK 807
- C-328** Seat Holder – Cast Iron* ASTM A126 CL.B

Bronze Faced Disc Parts

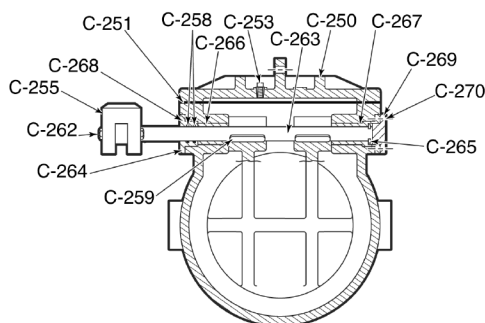
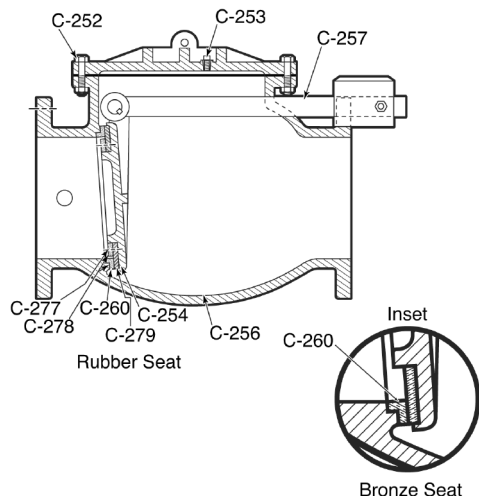
- C-326** Disc Seat Ring – Bronze ASTM B62

*2" – 6" sizes are cast iron, ASTM A126 CL.B, 8" – 12" sizes are ductile iron ASTM A536 Gr. 65-45-12.

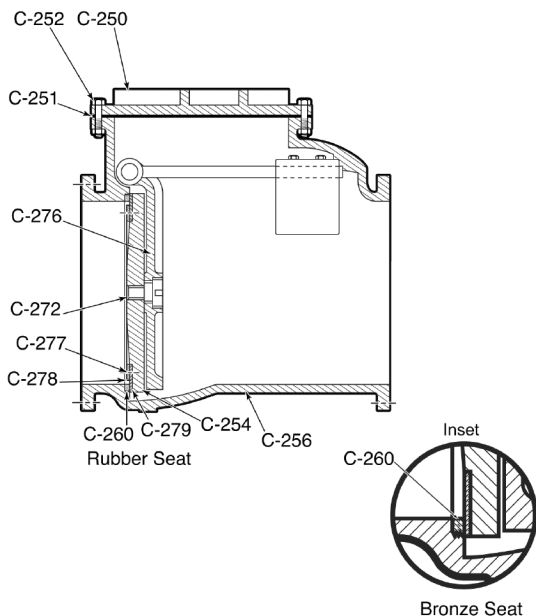
MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

14"–36" Swing Type Lever and Weight Check Valve Parts

14"–16" SWING TYPE LEVER AND WEIGHT CHECK VALVES



18"–36" SWING TYPE LEVER AND WEIGHT CHECK VALVES



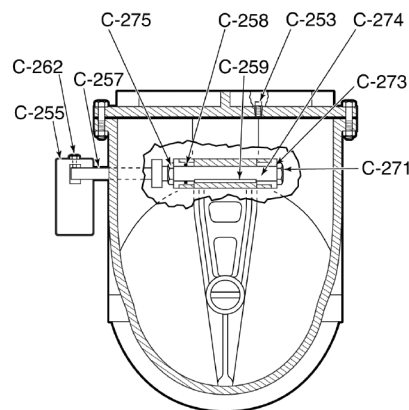
- C-250** Cover – Cast Iron ASTM A126 CL.B
- C-251** Cover Gasket – Rubber ASTM D2000 AA 7008
- C-252** Cover Bolt & Nut – Zinc Coated Steel ASTM A30, Grade B
- C-253** Test Plug – Malleable Iron ASTM A47
- C-255** Weight – Cast Iron ASTM A126 CL.B
- C-256** Body – Cast Iron ASTM A126 CL.B
- C-258** O-ring – Rubber ASTM D2000
- C-259** Key – Stainless Steel ASTM A276, Type 304
- C-260** Bronze Seat Ring – Bronze ASTM B62
- C-262** Weight Bolt – Zinc Coated Steel ASTM A307, Grade B

- C-254** Disc – Ductile Iron ASTM A536 Gr. 65-45-12
- C-257** Weight Arm – Zinc Coated Steel ASTM A307, Grade B
- C-263** Hinge Pin – Stainless Steel ASTM A276, Type 304
- C-264** O-ring – Rubber ASTM D2000
- C-265** Snap Ring – Stainless Steel ASTM A276, Type 420
- C-266** Bushing A – Bronze ASTM B62
- C-267** Bushing B – Bronze ASTM B62
- C-268** End Plate A – Bronze ASTM B62
- C-269** End Plate B – Ductile Iron ASTM A536 Gr. 65-45-12
- C-270** End Plate Bolt – Zinc Coated Steel ASTM A307, Grade B

- C-254** Disc – Cast Iron ASTM A126, Class B
- C-257** Weight Arm – Ductile Iron ASTM A536 Gr. 65-45-12
- C-271** Gasket – Rubber ASTM D2000
- C-272** Disc Bolt – Stainless Steel ASTM A276, Type 304
- C-273** Retaining Plug – Brass ASTM B21
- C-274** Hinge Pin – Stainless Steel ASTM A276, Type 304
- C-275** Seat Nut – Brass ASTM B21
- C-276** Arm – Ductile Iron ASTM A536 Gr. 65-45-12

Rubber Faced Disc Parts

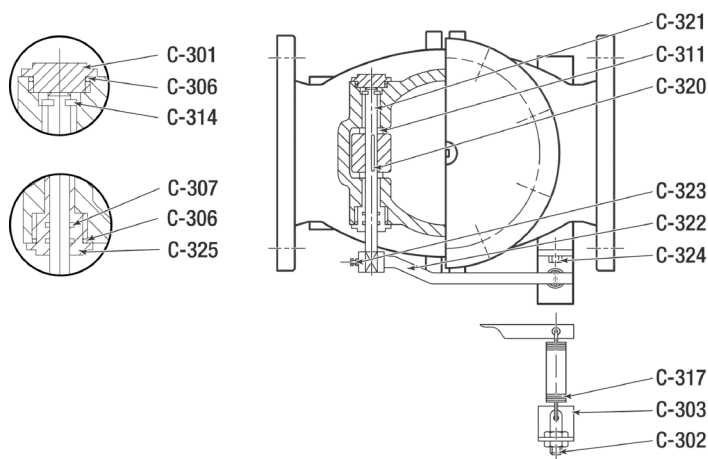
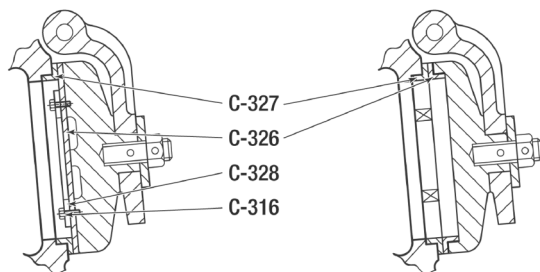
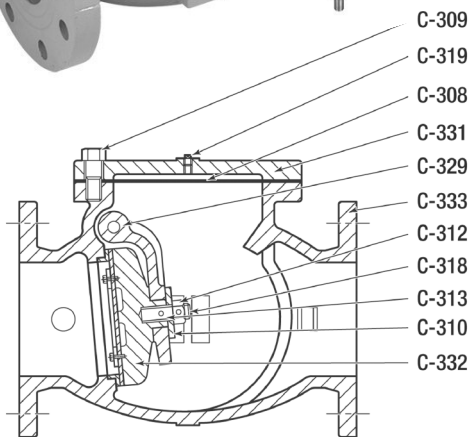
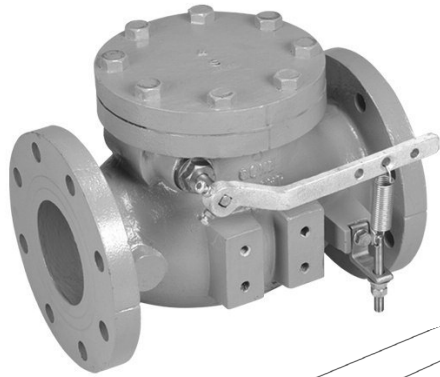
- C-277** Seat Holder Bolt – Stainless Steel ASTM A276, Type 304
- C-278** Seat Holder – Ductile Iron ASTM A536 Gr. 65-45-12
- C-279** Disc Seat Ring – Rubber ASTM D2000 AA 7008



MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

2"–12" Swing Type Lever and Spring Check Valve Parts

2"–12" SWING TYPE LEVER AND SPRING CHECK VALVES



- C-301** Retaining Plug Brass ASTM B21
- C-302** Stud Nut & Nut Zinc Coated Steel ASTM A307, Grade B
- C-303** Arm B Zinc Coated Steel ASTM A36
- C-306** O-ring C Rubber ASTM D2000, BK 707
- C-307** O-ring B Rubber ASTM D2000, BK 707
- C-308** Gasket Rubber ASTM D2000, BK 807
- C-309** Cover Bolt Zinc Coated Steel ASTM A307, Grade B
- C-310** Washer Brass ASTM B21
- C-311** Spacer Brass ASTM B21
- C-312** Disc Nut Brass ASTM B21
- C-313** Disc Stud Brass ASTM B21
- C-314** Snap Ring Stainless Steel ASTM A276, Type 420
- C-317** Spring Zinc Coated Steel ASTM A307, Grade B
- C-318** Pin Stainless Steel ASTM A276, Type 304
- C-319** Test Plug Malleable Iron ASTM A47
- C-320** Key Stainless Steel ASTM A276, Type 304
- C-321** Hinge Pin Stainless Steel ASTM A276, Type 304
- C-322** Weight Arm Ductile Iron ASTM A536 Gr. 65-45-12
- C-323** Bolt & Nut Zinc Coated Steel ASTM A307, Grade B
- C-324** Bolt Zinc Coated Steel ASTM A307, Grade B
- C-325** Seat Nut Brass ASTM B21
- C-327** Body Seat Ring Bronze ASTM B62
- C-329** Arm Ductile Iron ASTM A536 Gr. 65-45-12
- C-331** Cover Cast Iron ASTM A126 CL.B
- C-332** Disc Cast Iron ASTM A126 CL.B
- C-333** Body Cast Iron ASTM A126 CL.B

Rubber Faced Disc Parts

- C-316** Disc Seat Bolt Stainless Steel ASTM A276, Type 304
- C-326** Disc Seat Ring Rubber ASTM D2000, BK 807
- C-328** Seat Holder Cast Iron* ASTM A126 CL.B

Bronze Faced Disc Parts

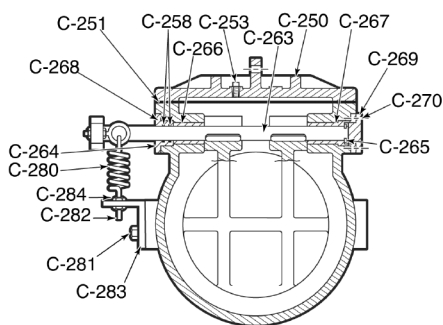
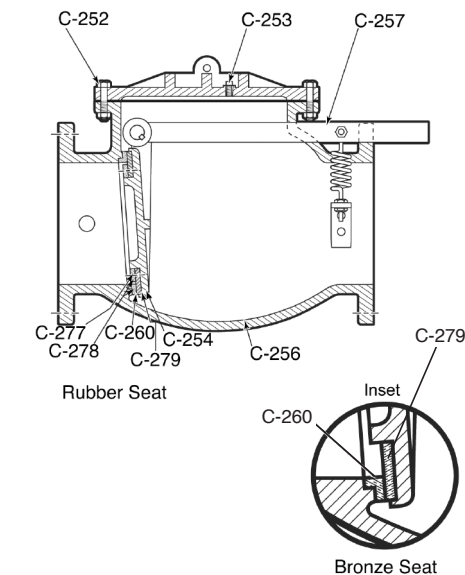
- C-326** Disc Seat Ring Bronze ASTM B62

*2" – 6" sizes are cast iron, ASTM A126 CL.B, 8" – 12" sizes are ductile iron ASTM A536 Gr. 65-45-12.

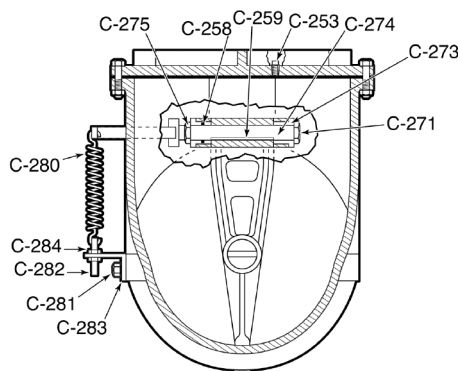
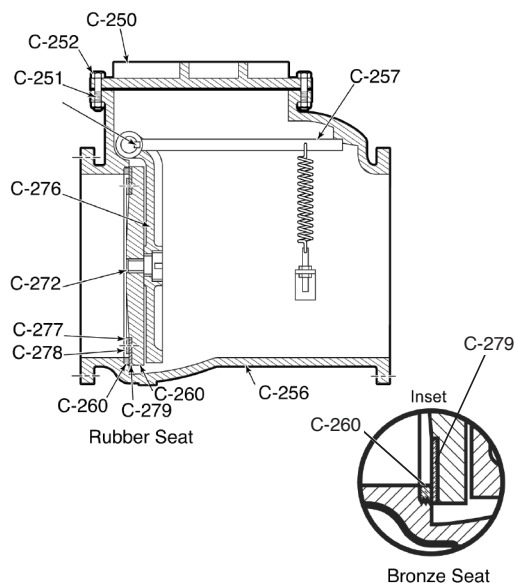
MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

14"–36" Swing Type Lever and Spring Check Valve Parts

14"–16" SWING TYPE LEVER AND SPRING CHECK VALVES



18"–36" SWING TYPE LEVER AND SPRING CHECK VALVES



C-250 Cover – Cast Iron ASTM A126 CL.B
C-251 Cover Gasket – Rubber ASTM D2000 AA 7008
C-252 Cover Bolt & Nut – Zinc Coated Steel ASTM B18.2.1
C-253 Test Plug – Malleable Iron ASTM A47
C-255 Weight – Cast Iron ASTM A126 CL.B
C-256 Body – Cast Iron ASTM A126 CL.B
C-258 O-ring – Rubber ASTM D2000
C-259 Key – Stainless Steel ASTM A276, Type 304
C-260 Bronze Seat Ring – Bronze ASTM B62
C-280 Spring – Plated Steel ASTM A36
C-281 Bolt – Zinc Coated Steel ASTM A307, Grade B
C-282 Straight Bolt – Stainless Steel ASTM A276, Type 304
C-283 Bracket – Cold Rolled Steel ASTM A1008
C-284 Nut – Zinc Coated Steel ASTM A307, Grade B

14"–16"

C-254 Disc – Ductile Iron ASTM A536 Gr. 65-45-12
C-257 Weight Arm – Zinc Coated Steel ASTM A307, Grade B
C-263 Hinge Pin – Stainless Steel ASTM A276, Type 304
C-264 O-ring – Rubber ASTM D2000
C-265 Snap Ring – Stainless Steel ASTM A276, Type 420
C-266 Bushing A – Bronze ASTM B62
C-267 Bushing B – Bronze ASTM B62
C-268 End Plate A – Bronze ASTM B62
C-269 End Plate B – Ductile Iron ASTM A536 Gr. 65-45-12
C-270 End Plate Bolt – Zinc Coated Steel ASTM A307, Grade B

18"–36"

C-254 Disc – Cast Iron ASTM A126, Class B
C-257 Weight Arm – Ductile Iron ASTM A536 Gr. 65-45-12
C-271 Gasket – Rubber ASTM D2000
C-272 Disc Bolt – Stainless Steel ASTM A276, Type 304
C-273 Retaining Plug – Brass ASTM B21
C-274 Hinge Pin – Stainless Steel ASTM A276, Type 304
C-275 Seat Nut – Brass ASTM B21
C-276 Arm – Ductile Iron ASTM A536 Gr. 65-45-12

Rubber Faced Disc Parts

C-277 Seat Holder Bolt – Stainless Steel ASTM A276, Type 304
C-278 Seat Holder – Ductile Iron ASTM A536 Gr. 65-45-12
C-279 Disc Seat Ring – Rubber ASTM D2000 AA 7008

Bronze Faced Disc Parts

C-326 Disc Seat Ring Bronze ASTM B62

MUELLER® A-2600 SERIES AWWA SWING CHECK VALVE

Notes



Customer Service – Decatur, IL 1-800-423-1323
Canada – Mueller Canada, Inc. Barrie, Ontario (705)719-9965