RECOMMENDED SPECIFICATIONS

AWWA CLASS 150B AND 250B BUTTERFLY VALVES

STYLE 4500 SIZES 3”–12” • STYLE 1450 SIZES 30”–54”

(Consult Clow Valve for sizes larger than 54 inches.)

ACCESSORIES / OPTIONS

1. All butterfly valves shall be of the rubber-seated, tight-closing type. They shall meet or exceed AWWA standard C504, latest edition, Class 150 or Class 250. All valves shall be Clow Valve 4500/1450 butterfly valves, or approved equal.

2. Both ends shall be AWWA C111 mechanical joint or per flanged ASME B16.1 or as otherwise noted on plans and specs.

3. Valve shafts shall be ASTM A247 Type 304 stainless steel for Cl150 or ASTM A484 Type 304 stainless steel for Cl250. Each valve shaft shall be of a one-piece design for valves 12 inches and smaller and a two-piece design for valves 14 inches and larger. Valve shafts shall have a minimum diameter extending through the valve bearings and into the valve disc as specified in AWWA C504. All valve shafts must meet or exceed the minimum connection torque requirement set forth in AWWA C504.

4. Valve body and vane shall be high-strength Ductile Iron to ASTM A536 with ASTM A276 Type 316 stainless steel body seats.

5. Rubber valve seats shall be a full-circle, 360-degree seat not penetrated by the valve shaft. Valve seat shall be EPDM.

6. The valve seat will be attached to the valve vane by Type 304 stainless steel fastening hardware. The valve seat must be easily field adjustable and replaceable without any special tools or lengthy curing time.

7. Valve shaft seals shall be of the O-ring type for 3”–24” and of-ring type for 30 inches and larger utilizing the same elastomer as specified for the valve seats and the intended service. All valve shaft seals must be easily field replaceable.

8. Valve actuator shall be of the traveling nut type, sealed and lubricated for underground or in-plant service. Operator shall be capable of withstanding an overrated input torque of 450 ft-lbs. at full-open or full-closed position without damage to the valve operation. Operators for valves 14 inches and larger must have a 304 stainless steel external stop limiting device and travel adjustment. The travel adjustments must be able to be operated without removing the valve from the line. All valve actuators must be per AWWA C504. Certification of proof of design and torque requirements shall be submitted to the owner upon request.

9. Handcrank, handwheel or chainwheel – All manual operators for service other than underground shall have a position indicator and shall be totally enclosed and permanently lubricated. Actuators shall be designed to produce the required operating torque with a maximum rim pull of 80 lb. on handwheel or chainwheel and a maximum input of 150 ft. lb. on operating nuts.

10. Cylinder – Cylinder operator shall be of the base mounted configuration. Cylinder barrel shall be of molybdenum disulfide-lined glass fiber reinforced epoxy tubing, to provide a corrosion-free, self-lubricated high-strength barrel. Rod seal shall be of urethane, molybdenum disulfide filled to provide a self-lubricated, long life seal.

COMMITTED TO ENVIRONMENTAL RESPONSIBILITY

Clow Valve Company is committed to protecting our natural resources through environmentally responsible manufacturing practices, including the use of 80+% recycled content in our hydrants and valves.
**ENGINEERING FEATURES**

**STYLE 4500**

**SIZES 3”–12”**

**ACTUATOR MOUNTING PAD**
Clow Valve Style 4500 Butterfly Valves come standard with a traveling nut actuator mounted on top of valve body and designed in accordance with ISO 5211 and MSS-101. This allows for direct mounting of manual and automated actuators without the need of additional parts or compact rig arrangements.

**VALUE BODY**
Clow Valve Style 4500 Butterfly Valves consist of heavy duty ASTM A536 Ductile Iron that are designed to exceed AWWA standard C504. Heavy duty A536 Ductile Iron meets or exceeds AWWA C504: Class 150B – 304 stainless steel. Other options are available.

**SEALING SYSTEM**
EPDM rubber is vulcanized to a 304 stainless steel ring and attached to the vane utilizing self-locking, stainless steel cap screws. The body ring seal consists of 316 stainless steel. Forming an uninterrupted 360-degree seal. The Clow Valve Style 4500 Butterfly Valve vane rubber seat ring is readily field replaceable.

**DUCKLE IRON HOUSING**
Available in four bolt ISO 5211 & MSS-101 compliant configuration. Actuator can be mounted in 90-degree increments for easy installation and operation without the need of support plates and structural supports.

**OVERRIDE PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**LEVER**
Ductile Iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the operating direction of the valve.

**POSITION STOP**
Factory preset prevents the actuator from going beyond the open and closed positions of the valve.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 450 TRAVELING NUT ACTUATOR (SIZES 3”–12”)**

**ACTUATOR MOUNTING PAD**
One-piece shaft of stainless steel, mounted or recessed AWWA C504. Clow Valve Style 4500 Butterfly Valves come standard with an integrally cast stainless steel cap screw forming an uninterrupted 360-degree seal. The actuator is designed to exceed AWWA standard C504.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.

**OFFSET VANE DESIGN**
Vanes are self-lubricating and require no maintenance. Oversize 450 ft-lbs of input torque against the stops (open/closed) to prevent damage to the valve and actuator.

**OVERLOAD PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 125 TRAVELING NUT ACTUATOR (SIZES 14”–24”)**

**ACTUATOR MOUNTING PAD**
Two pieces of stainless steel made to exceed AWWA standard C504. Clow Valve Style 4500 Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.

**OFFSET VANE DESIGN**
Vanes are self-lubricating and require no maintenance. Oversize 450 ft-lbs of input torque against the stops (open/closed) to prevent damage to the valve and actuator.

**OVERLOAD PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 150 TRAVELING NUT ACTUATOR (SIZES 30”–54”)**

**ACTUATOR MOUNTING PAD**
Two pieces of stainless steel made to exceed AWWA standard C504. Clow Valve Style 4500 Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.

**OFFSET VANE DESIGN**
Vanes are self-lubricating and require no maintenance. Oversize 450 ft-lbs of input torque against the stops (open/closed) to prevent damage to the valve and actuator.

**OVERLOAD PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 2200 (30”–36”) AND MODEL 4350 (42”) TRAVELING NUT ACTUATOR**

**ACTUATOR MOUNTING PAD**
One-piece shaft of stainless steel, mounted or recessed AWWA C504. Clow Valve Style 4500 Butterfly Valves come standard with an integrally cast stainless steel cap screw forming an uninterrupted 360-degree seal. The actuator is designed to exceed AWWA standard C504.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.

**OFFSET VANE DESIGN**
Vanes are self-lubricating and require no maintenance. Oversize 450 ft-lbs of input torque against the stops (open/closed) to prevent damage to the valve and actuator.

**OVERLOAD PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 450 TRAVELING NUT ACTUATOR (SIZES 14”–24”)**

**ACTUATOR MOUNTING PAD**
Two pieces of stainless steel made to exceed AWWA standard C504. Clow Valve Style 4500 Butterfly Valves come standard with an integrally cast stainless steel cap screw forming an uninterrupted 360-degree seal. The actuator is designed to exceed AWWA standard C504.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.

**OFFSET VANE DESIGN**
Vanes are self-lubricating and require no maintenance. Oversize 450 ft-lbs of input torque against the stops (open/closed) to prevent damage to the valve and actuator.

**OVERLOAD PROTECTION**
Up to 450 lbs of input torque prevents damage to the valve and actuator. Stainless steel lock bolts. Accurate alignment is held in installation and operation. Accurate alignment is maintained by stainless steel lock bolts. Accurate alignment is maintained by stainless steel lock bolts.

**DUCKLE IRON HOUSING**
Includes Iso 5211 & MSS-101 compliant carbide cartridge.

**MODEL 150 TRAVELING NUT ACTUATOR (SIZES 30”–54”)**

**ACTUATOR MOUNTING PAD**
Two pieces of stainless steel made to exceed AWWA standard C504. Clow Valve Style 4500 Butterfly Valves come standard with an integrally cast stainless steel cap screw forming an uninterrupted 360-degree seal. The actuator is designed to exceed AWWA standard C504.

**VALUE BODY**
Butterfly Valve vane rubber seat ring is stainless steel ring and attached to the vane seamlessly. Contains multiple keyways to change the operating direction of the valve.

**SEALING SYSTEM**
Self-adjusting EPDM rubber seal that increases the sealing force with the increase in line pressure. Accessible and removable while mounting the valve, per AWWA CDA.
ENGINEERING FEATURES
STYLE 4500
SIZES 3"–12"

ACTUATOR MOUNTING PAD
Clow Valve Style 4500 Butterfly Valve comes standard with a precision cut traveling nut actuator that is designed and manufactured to meet or exceed the latest revision of ANSI 150 transmission screws. Dome head A536 Ductile Iron meets or exceeds AWWA C504. Factory preset internal adjusters prevent the actuator from going beyond the open and closed positions of the valve.

DIAPHRAGM
Generically sized, stainless steel membranes come standard with all actuator models. The diaphragm is a reusable rubber gasket to seal the valve and actuator. Permanently lubricated and sealed to prevent the actuator from going beyond the open and closed positions of the valve.

PACKING
Self-adjusting chevron-type seal that provides large free area, excellent sealing and back-up. New design is self-lubricating and requires no maintenance.

OVERLOAD PROTECTION
Up to 450 lbs of input torque to prevent damage to the valve and actuators.

LEVER
Ductile iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the shaft direction.

LEVER & TRAVELING NUT
Factory preset internal adjusters prevent the actuator from going beyond the open and closed positions of the valve.

OVERLOAD PROTECTION
Up to 450 lbs of input torque to prevent damage to the valve and actuators.

LEVER
Ductile iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the shaft direction.

LEVER & TRAVELING NUT
Factory preset internal adjusters prevent the actuator from going beyond the open and closed positions of the valve.

DIAPHRAGM
Generically sized, stainless steel membranes come standard with all actuator models. The diaphragm is a reusable rubber gasket to seal the valve and actuator. Permanently lubricated and sealed to prevent the actuator from going beyond the open and closed positions of the valve.

PACKING
Self-adjusting chevron-type seal that provides large free area, excellent sealing and back-up. New design is self-lubricating and requires no maintenance.

OVERLOAD PROTECTION
Up to 450 lbs of input torque to prevent damage to the valve and actuators.

LEVER
Ductile iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the shaft direction.

LEVER & TRAVELING NUT
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LEVER & TRAVELING NUT
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DIAPHRAGM
Generically sized, stainless steel membranes come standard with all actuator models. The diaphragm is a reusable rubber gasket to seal the valve and actuator. Permanently lubricated and sealed to prevent the actuator from going beyond the open and closed positions of the valve.

PACKING
Self-adjusting chevron-type seal that provides large free area, excellent sealing and back-up. New design is self-lubricating and requires no maintenance.

OVERLOAD PROTECTION
Up to 450 lbs of input torque to prevent damage to the valve and actuators.

LEVER
Ductile iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the shaft direction.

LEVER & TRAVELING NUT
Factory preset internal adjusters prevent the actuator from going beyond the open and closed positions of the valve.

DIAPHRAGM
Generically sized, stainless steel membranes come standard with all actuator models. The diaphragm is a reusable rubber gasket to seal the valve and actuator. Permanently lubricated and sealed to prevent the actuator from going beyond the open and closed positions of the valve.

PACKING
Self-adjusting chevron-type seal that provides large free area, excellent sealing and back-up. New design is self-lubricating and requires no maintenance.

OVERLOAD PROTECTION
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LEVER & TRAVELING NUT
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DIAPHRAGM
Generically sized, stainless steel membranes come standard with all actuator models. The diaphragm is a reusable rubber gasket to seal the valve and actuator. Permanently lubricated and sealed to prevent the actuator from going beyond the open and closed positions of the valve.

PACKING
Self-adjusting chevron-type seal that provides large free area, excellent sealing and back-up. New design is self-lubricating and requires no maintenance.

OVERLOAD PROTECTION
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LEVER
Ductile iron construction, precision engineered to transmit torque seamlessly. Contains multiple keyways to change the shaft direction.

LEVER & TRAVELING NUT
Factory preset internal adjusters prevent the actuator from going beyond the open and closed positions of the valve.
ENGINEERING FEATURES
STYLE 4500

STAINLESS STEEL SHAFT
One-piece shaft of stainless steel. Monolithic Stainless Steel Type 304 – 304L – 316 stainless steel. Other options are available.

SELF-ADJUSTING PERMANENT PACKING
Adjustable self-locking type seal that prevents the increase in line pressure. Accessible without disassembling the valve, per ANSI CB4A.

ACTUATOR MOUNTING PAD
Clow Valve Style 4600 Butterfly Valves come standard with a four bolt ISO-5211 & MSS-101 compliant connection.

ACTUATOR MOUNTING PAD
Clow Valve Style 4600 Butterfly Valves come standard with a four bolt ISO-5211 & MSS-101 compliant connection. This allows for direct mounting of manual and automated actuators without the need of additional pieces or adapters, providing a more compact and rigid arrangement.

VALUE BODY
Clow Valve Style 4600 Butterfly Valves consist of heavy duty ASTM A216 Type 1 carbon steel, forming an uninterrupted 360-degree rotation. The valve is designed to meet or exceed the latest revision of ANSI CB4A.

BODY RING SEAT
Stainless steel ring and attached to the vane utilizing self-locking, stainless steel cap screws. The body ring seat is composed of ASTM A182 F11 water proof stainless steel taper pins secured with stainless steel lock bolts.

OFFSET VANE DESIGN
Heavy-duty A536 Ductile Iron core is designed to meet or exceed the latest revision of ANSI CB4A. This allows for direct mounting of manual and automated actuators without the need of additional pieces or adapters, providing a more compact and rigid arrangement.

OPPOSING SEAT DESIGN
The bearings are self-lubricating and require no maintenance.

STAINLESS STEEL SHAFT
Two pieces stainless steel made in accordance with SSL-750 Class 150B – 304 stainless steel Class 250B – 304 stainless steel Class 500B – 316L stainless steel Class 500B. Other options are available.

SELF-ADJUSTING PERMANENT PACKING
Self-adjusting, corrosion resistant seat that prevents the increase in line pressure. Accessible without disassembling the valve, per ANSI CB4A.

OVERLOAD PROTECTION
Up to 450 lbs of input torque prevents damage to the valve and actuator.

LEVER AND TRAVELING NUT ACTUATOR
Ductile iron construction, precision machined to transmit torque accurately. Features multiple keyways to change the jogging direction.

POSITION STOP NUTS
Factory preset manual adjustment prevent the actuator from going beyond the open and closed positions of the valve.

DUCtILE IRON HOUSING
One-piece cast iron body with multiple keyways to change the jogging direction. Accurate alignment is held in installation with a bronze thrust bearing.

ADJUSTABLE THRUST BEARINGS
Factory preset manual adjustment prevent the actuator from going beyond the open and closed positions of the valve.

LEVER
Ductile iron construction, precision machined to transmit torque accurately. Features multiple keyways to change the jogging direction.

DUCtILE IRON HOUSING
One-piece cast iron body with multiple keyways to change the jogging direction. Accurate alignment is held in installation with a bronze thrust bearing.

ENGINEERING FEATURES
STYLE 4500

STAINLESS STEEL SHAFT
One-piece shaft of stainless steel. Monolithic Stainless Steel Type 304 – 304L – 316 stainless steel. Other options are available.

SELF-ADJUSTING PERMANENT PACKING
Adjustable self-locking type seal that prevents the increase in line pressure. Accessible without disassembling the valve, per ANSI CB4A.

ACTUATOR MOUNTING PAD
Clow Valve Style 4600 Butterfly Valves come standard with a four bolt ISO-5211 & MSS-101 compliant connection. This allows for direct mounting of manual and automated actuators without the need of additional pieces or adapters, providing a more compact and rigid arrangement.

VALUE BODY
Clow Valve Style 4600 Butterfly Valves consist of heavy duty ASTM A216 Type 1 carbon steel, forming an uninterrupted 360-degree rotation. The valve is designed to meet or exceed the latest revision of ANSI CB4A.

BODY RING SEAT
Stainless steel ring and attached to the vane utilizing self-locking, stainless steel cap screws. The body ring seat is composed of ASTM A182 F11 water proof stainless steel taper pins secured with stainless steel lock bolts.

OFFSET VANE DESIGN
Heavy-duty A536 Ductile Iron core is designed to meet or exceed the latest revision of ANSI CB4A. This allows for direct mounting of manual and automated actuators without the need of additional pieces or adapters, providing a more compact and rigid arrangement.

OPPOSING SEAT DESIGN
The bearings are self-lubricating and require no maintenance.

STAINLESS STEEL SHAFT
Two pieces stainless steel made in accordance with SSL-750 Class 150B – 304 stainless steel Class 250B – 304 stainless steel Class 500B – 316L stainless steel Class 500B. Other options are available.

SELF-ADJUSTING PERMANENT PACKING
Self-adjusting, corrosion resistant seat that prevents the increase in line pressure. Accessible without disassembling the valve, per ANSI CB4A.

OVERLOAD PROTECTION
Up to 450 lbs of input torque prevents damage to the valve and actuator.

LEVER AND TRAVELING NUT ACTUATOR
Ductile iron construction, precision machined to transmit torque accurately. Features multiple keyways to change the jogging direction.

POSITION STOP NUTS
Factory preset manual adjustment prevent the actuator from going beyond the open and closed positions of the valve.

DUCtILE IRON HOUSING
One-piece cast iron body with multiple keyways to change the jogging direction. Accurate alignment is held in installation with a bronze thrust bearing.

ADJUSTABLE THRUST BEARINGS
Factory preset manual adjustment prevent the actuator from going beyond the open and closed positions of the valve.

LEVER
Ductile iron construction, precision machined to transmit torque accurately. Features multiple keyways to change the jogging direction.

DUCtILE IRON HOUSING
One-piece cast iron body with multiple keyways to change the jogging direction. Accurate alignment is held in installation with a bronze thrust bearing.
RECOMMENDED SPECIFICATIONS

AWWA CLASS 150B AND 250B BUTTERFLY VALVES

STYLE 4500 SIZES 3”–12” • STYLE 1450 SIZES 30”–54”

(Consult Clow Valve for sizes larger than 54 inches.)

1. All butterfly valves shall be of the rubber-seated, tight-closing type. They shall meet or exceed AWWA standard C504, latest edition, Class 150 or Class 250. All valves shall be Clow Valve 4500/1450 butterfly valves, or approved equal.

2. Both ends shall be AWWA C111 mechanical joint or per flanged ANSI B16.1 or as otherwise noted on plans and special.

3. Valve shafts shall be ASTM A276 Type 304 stainless steel for Cl150 or ASTM A564 Type 630 stainless steel for Cl250. Each valve shaft shall be of a one-piece design for valves 12 inches and smaller and a two-piece design for valves 14 inches and larger. Valve shafts shall have a minimum diameter extending through the valve bearings and into the valve disc as specified in AWWA C504. All valve shafts must meet or exceed the minimum connection torque requirement set forth in AWWA C504.

4. Valve body and vane shall be high-strength Ductile Iron to ASTM A536 with ASTM A276 Type 316 stainless steel body seats.

5. Rubber valve seats shall be a full-circle, 360-degree seat not penetrated by the valve shaft. Valve seat shall be EPDM.

6. The valve seat will be attached to the valve vane by Type 304 stainless steel self-locking fasteners. The valve seat must be easily field adjustable and replaceable without any special tools or lengthy curing time.

7. Valve shaft seals shall be of the o-ring type for 3”–24” and of-ring type for 30 inches and larger utilizing the same elastomers as specified for the valve seats and the intended service. All valve shaft seals must be easily field replaceable.

8. Valve actuator shall be the traveling nut type, sealed and lubricated for underground or in-plant service. Operator shall be capable of withstanding an overload input torque of 450 ft-lbs. at full open or full-closed position without damage to the valve operator. Operators for valves 14 inches and larger must have a 304 stainless steel external stop limiting device and travel adjustment. The travel adjustments must be able to be operated without removing the valve from the line. All valve actuators must be per AWWA C504.

9. Handcrank, handwheel or chainwheel – All manual actuators for service other than underground shall have a position indicator and shall be totally enclosed and permanently lubricated. Actuators shall be designed to produce the required operating torque with a maximum rim pull of 80 lb. on handwheel or chainwheel and a maximum input of 150 ft. lb. on operating nuts.

10. Cylinder – Cylinder operator shall be of the base mounted configuration. Cylinder barrel shall be of molybdenum disulfide-lined glass fiber reinforced epoxy tubing, to provide a corrosion-free, self-lubricated, high-strength barrel. Rod seal shall be of urethane, molybdenum disulfide filled to provide a self-lubricated, long life seal.

11. The valve interior and exterior surfaces shall be coated in accordance with the latest revisions of AWWA C504 and must be NSF 61 Certified.

COMMITTED TO ENVIRONMENTAL RESPONSIBILITY

Clow Valve Company is committed to protecting our natural resources through environmentally responsible manufacturing practices, including the use of 80+% recycled content in our hydrants and valves.
RECOMMENDED SPECIFICATIONS

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**ACCESSORIES / OPTIONS**

1. All butterfly valves shall be of the rubber-seated, tight-closing type. They shall meet or exceed AWWA standard C504, latest edition, Class 150 or Class 250. All valves shall be Clow Valve 4500/1450 butterfly valves, or approved equal.

2. Both ends shall be AWWA C111 mechanical joint or flanged ASME B16.1 or as otherwise noted on plans and special.

3. Valve shafts shall be ASTM A246 Type 304 stainless steel or ASTM A564 Type 630 stainless steel for Cl150. Each valve shaft shall be a one-piece design for valves 12 inches and smaller and a two-piece design for valves 14 inches and larger. Valve shafts shall have a minimum diameter extending through the valve bearings and into the valve disc as specified in AWWA C504. All valve shafts must meet or exceed the minimum connection torque requirement set forth in AWWA C504.

4. Valve body and vane shall be high-strength Ductile Iron to ASTM A536 with ASTM A276 Type 316 stainless steel body seats.

5. Rubber valve seats shall be a full-circle, 360-degree seat not penetrated by the valve shaft. Valve seat shall be EPDM.

6. The valve seat will be attached to the valve vane by Type 304 stainless steel all-lugging hardware. The valve seat must be easily field-adjustable and replaceable without any special tools or lengthy curing time.

7. Valve shaft seals shall be of the o-ring type for 3”–24” and O-ring type for 30 inches and larger utilizing the same elastomer as specified for the valve seats and the intended service. All valve shaft seals must be easily field replaceable.

8. Valve actuator shall be the traveling nut type, sealed and lubricated for underground or in-plant service. Operator shall be capable of withstanding an overtravel input torque of 450 ft-lb, at full open or full-closed position without damage to the valve actuator. Operators for valves 14 inches and larger must have a AWWA C504 stainless steel external stop limiting device and travel adjustment. The travel adjustments must be able to be operated without removing the valve from the line. All valve actuators must be per AWWA C504. Certification of proof of design and torque requirements shall be submitted to the owner upon request.

9. Handcrank, handwheel or chainwheel – All manual operators for service other than underground shall have a position indicator and shall be totally enclosed and permanently lubricated. Actuators shall be designed to produce the required operating torque with a maximum rim pull of 80 lb. on handwheel or chainwheel and a maximum input of 150 ft. lb. on operating nuts.

10. Cylinder – Cylinder operator shall be of the base mounted configuration. Cylinder barrel shall be of molybdenum disulfide-lined glass fiber reinforced epoxy tubing, to provide a corrosion-free, self-lubricated, high-strength barrel. Rod seal shall be of urethane, molybdenum disulfide filled to provide a self-lubricated, long life seal.

11. The valve interior and exterior surfaces shall be coated in accordance with the latest revisions of AWWA C504 and must be NSF 61 Certified.