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# SEAT-ON-BODY Butterfly Valves

AWWA C504 SERIES 4700 3'-24" SERIES 4750 30"-36" CLASS 150B & 250B

mcwanepi.com

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Scan for detailed drawings

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# NPN THE INTEGRATED SOLUTION FOR TREATMENT PLANT NEEDS

Combining expertise from eight key water infrastructure brands in the McWane family of companies, McWane Plant & Industrial (MPI) provides a singular access point for the essential products and service required for any water or wastewater plant project.

#### WHY MPI?

We're a new kind of company formed in service of three simple goals:

- To provide a primary source for best-in-class products from time-tested brands
- Offer veteran specialists as resources for any plant project of any scale
- Increase the ease and efficiency of the planning and completion of our clients' projects

Our dedicated team is comprised of dozens of treatment plant specialists with decades of experience. We work cooperatively with industry partners to give each project the attention it deserves, providing unprecedented levels of communication, access and collaboration. Our support teams work within dedicated services regions allowing our experts to apply regionally specific knowledge, including state regulations, codes and environmental specifications. Our nationally certified Associate Design-Build Professionals are a valuable asset to Design-Build projects.

The extended manufacturing capabilities of MPI mean your precise requirements are closer in reach and delivered faster with less legwork from you. We offer products that conform to rigorous industry standards and can work with your team to customize and fulfill unique requests. As part of our commitment to American workers and industries, we're proud of our ability to provide products from domestic facilities and to meet all domestic funding requirements.

MPI - One smart source, ready to work for you.

## AWWA C504 BUTTERFLY VALVES

SIZES 3"-36" AWWA C504



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PRODUCT SCOPE	
Size Range	3"-36"
Materials	Ductile Iron ASTM A536 body and disc (316SS disc for 3" size), 316SS disc edge, 316SS stem and fasteners (630SS stem on CL 250B), EPDM seat and packing.
Packing	Non-adjustable for buried service. Adjustable for non-buried service
Pressure Class	AWWA CL 150B & CL 250B
Temperature Range	0-250°F
Body Style	FLG, MJ
Actuator Types	Traveling Nut Actuator, Electric Motor Actuator, Pneumatic Actuator, Worm Gear, Lever
Standards	AWWA C504, NSF/ANSI 61/372 certified

## **ENGINEERING FEATURES** SERIES 4700 SIZES 3"-24"



Butterfly valves come standard with an integrally cast actuator mounting pad; machined and drilled in accordance with ISO-5211 and MSS SP-101. For buried service valves, this allows for direct mounting of manual and automate actuators without the need of additional plates, brackets or adapters, providing a more compact and rigid arrangement. Above ground service valves come standard with adjustable packing.

## STAINLESS STEEL SHAFT

Our butterfly valves utilize stainless steel shafts to resist corrosion and ensure long valve, bearing, and packing life. 316SS is the standard shaft material for CL 150B, while 630SS (17-4) stainless steel is utilized for CL 250B.

## FULL RUBBER LINED BODY

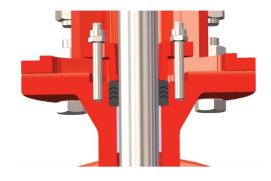
Our fully rubber-lined bodies for 3"-24" valves eliminates the need for inner body coating and effectively prevent abrasion from particulate in the media.

## PINNED SHAFT CONNECTION

Our disc-to-shaft pinning connections are built in accordance with AWWA C504. We utilize a 630SS (17-4) pin that is held in place with stainless steel nuts, creating a strong and reliable connection. This ensures that our customers will get many years of dependable, backlash-free service from their valve.

## LONG LIFE BEARINGS

PTFE-lined fiberglass bearings are designed to provide low friction and long life, reducing the required maintenance and requiring no lubrication.



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## FIELD ADJUSTABLE PACKING

Our above ground service valves feature field- adjustable, V-type (chevron) packing, allowing for quick packing adjustments without disassembling the valve. It's a highly practical feature that streamlines the process of packing adjustments and ensures minimal disruptions to your operations.

# **TRAVELING NUT ACTUATORS**

MPI style 4700 seat-on-body butterfly valves use slotted-lever traveling nut actuators for smooth operation. Traveling nut actuators were developed to match the torque characteristics and provide greater mechanical advantage near the valve open and close positions where it is most needed. The actuator slows down near the close position to help seat the disc, and the slower opening/closure reduces shocks to the connected piping system.

## Model 450 (sizes 3"-12")

#### **DUCTILE IRON HOUSING**

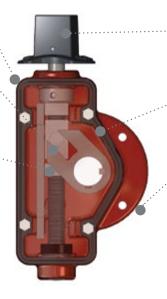
Includes a four bolt ISO-5211 & MSS-101 compliant connection.

## LEVER & TRAVELING NUT

Ductile Iron construction, precision machined to transmit torque seamlessly. Contains multiple keyways to change the opening direction.

## POSITION STOP NUTS

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



## **OVERLOAD PROTECTION**

Up to 450 ft-lbs of input torque protection to prevent damage to the valve and actuator.

## SEALS

Actuator is fully greased and utilizes a reusable rubber gasket in the housing cover and O-rings to seal the input shaft.

## 360° ROTATION

Actuator can be mounted in 90-degree increments for easy installation and operation without the need of adapter plates and additional parts.

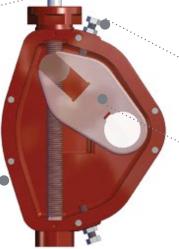
## Model 1250 (sizes 14"-20") • Model 2200 (sizes 24")

## OVERLOAD PROTECTION

Up to 450 ft-lbs of input torque against the stops (open/close) to prevent damage to the valve and actuator.

## **DUCTILE IRON HOUSING**

Proven strength, permanently lubricated and sealed to protect from the elements and groundwater.



## **POSITION STOP**

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

## LEVER

Ductile Iron construction, precision machined to transmit torque seamlessly. Contains multiple keyways to change the opening direction.

## **ENGINEERING FEATURES** SERIES 4750 SIZES 30"-36"

## ACTUATOR MOUNTING PAD

Butterfly valves come standard with an integrally cast actuator mounting pad, machined and drilled in accordance with ISO-5211 and MSS SP-101. 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.

#### STAINLESS STEEL SHAFT

Our butterfly valves utilize stainless steel shafts to resist corrosion and ensure long valve, bearing, and packing life. 316SS is the standard shaft material for CL 150B, while 630SS (17-4) stainless steel is utilized for CL 250B.

#### MECHANICALLY RETAINED SEAT

The seat has been designed with maintenance in mind, making it easy to replace even in the field. This means that users can conveniently install a new seat without needing to take their equipment to a service center, increasing uptime and reducing maintenance costs.

## PINNED SHAFT CONNECTION

Our disc-to-shaft pinning connections are built in accordance with AWWA C504. We utilize a 630SS (17-4) pin that is held in place with stainless steel nuts, creating a strong and reliable connection. This ensures that our customers will get many years of dependable, backlash-free service from their valve.

#### LONG LIFE BEARINGS

PTFE-lined fiberglass bearings are designed to provide low friction and long life, reducing the required maintenance and requiring no lubrication.

## ADJUSTABLE THRUST BEARING

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Bronze thrust bearing accurately centers vane in valve body. Accurate alignment is held in installation position. Factory adjusted for the life of the valve.

## **BUTTERFLY VALVE** ACCESSORIES & OPTIONS



## **Floor Stands**

The F-5500-T Floor stand is for use on NRS valves. Floor stands are of high strength ductile iron and may be provided with extension arms of steel, stainless steel or bronze as specified. The F-5500-T indicating floor stand is for use on NRS valves where open/ close valve indication is needed.



Size Range	Medium Length*	Maximum Length*
#1	2-1/2"	17"
#2	15"	24"
#3	24"	35"

\*Distance from wall

## Floor Box

Floor boxes are designed for use with NRS valves. Installed in concrete floors or slabs they provide support for the extension stem and a cover for the operating nut on the stem. Available in 8", 10", and 12" lengths. Maximum stem diameter 1-3/4".



**Valve Actuators** 

Cylinder actuator, electric motor actuator, worm gear actuator, lever actuator, hand wheel, chain wheel, and 2" op nut available. Other types upon request.

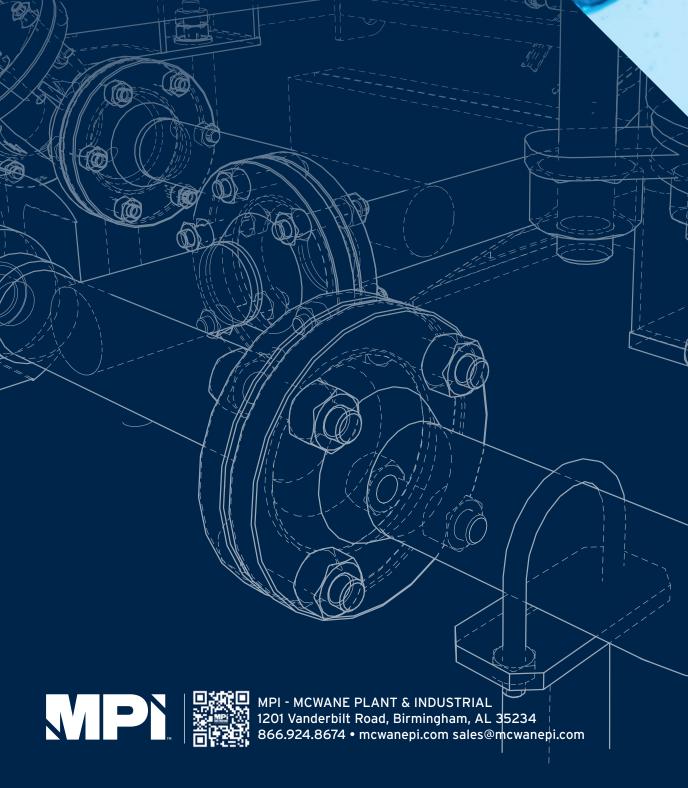
## **Extension Stems**

Valve extension stems are available in steel, or bronze and are provided with a 2" square nut or handwheel as specified. Extension stems are available for use with mud valves, gate valves, butterfly valves, etc. diameters up to 2-1/2" any length.



## Stem Guides

Stem guides are installed as wall brackets to support extension arms. They are fully adjustable and are made of high strength ductile iron. The guide is bronze bushed where the extension stem passes through. They should be installed at a height which does not permit the stem to be unsupported through a length or more that 10 feet. Stem guides are available in three sizes. When ordering state distance from center line of operating stem to face of wall, or give the size as shown.



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