The original, and the definitive standard.

# RESILENT WEDGE 2" THROUGH 12" STYLE 4067





AWWA C509 250 PSI • UL/FM Approved 200 PSI • NSF 61 Certified • Full Water Way • Fusion Bond Epoxy Coated • 10 Year Limited Warranty

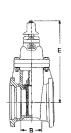


For Generations

# RESILIENT WEDGE VALVE

In 1975, M&H recognized the increased requirements and escalating maintenance cost of water systems in the United States.

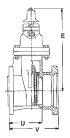
M&H responded by introducing the first R/W (Resilient Wedge) Valve in America. This introduction revolutionized the valve market in the U.S.



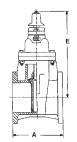
4067 MECHANICAL JOINT 2"- 12"



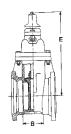
4067-03 PUSH ON FOR SDR PVC 2"- 12"



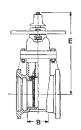
4751-01 MECHANICAL JOINT FOR TAPPING 3"-12"



4067-02 FLANGED 2"- 12"



4576-01 MECHANICAL CUTTING IN JOINT 4"- 12"

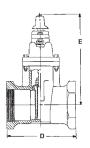


4067-01P MECHANICAL JOINT POST INDICATOR VALVE 2"-12"

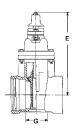
M&H was the first to introduce, and still leads in the design and technical development, of the bubble-tight resilient seating valve.

The M&H Resilient Wedge Valve, with its unique features and

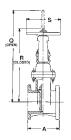
The M&H Resilient Wedge Valve, with its unique features and benefits, were the first to be manufactured with both AWWA and UL/FM approval for all water system requirements.



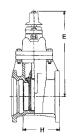
4067-07 THREADED ENDS 2"-3"



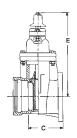
4067-22 TYTON ENDS FOR DUCTILE IRON AND C900 PVC PIPE 4"- 12"



4068-02 FLANGED OS & Y CONSTRUCTION 2"- 12"



4067-13 FLANGED X MJ 3"- 12"



4067-23 FLANGED X TYTON 4"- 12"

#### NOTE:

It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment. Flanged end connections not recommended for buried service.

VALVE SIZE	A	В	C	D	E	G	н	Р	Q	R	s	U	V	NO. OF TURNS TO FULL OPEN
2"	7	3-1/4	_	5-3/8	10-7/8	-	_	3	10	12	7-1/4	-	-	6-1/2
2-1/2"	7-1/2	-	-	7-1/8	11-3/8	-	-	3-1/4	16-3/8	13-7/8	7-1/4	-	-	8
3"	8	3-1/2	_	7-1/8	12-3/8	-	5-3/4	3-1/2	18-7/8	15-5/8	10	5-3/4	8-1/4	10
4"	9	4-1/2	6-3/4	-	14-3/4	4-5/8	6-3/4	4-1/2	22-3/4	18-1/4	10	6-3/4	9-1/4	13-1/2
6"	10-1/2	5-1/2	7-7/8	-	19	5-1/4	8	5	30-1/8	23-3/4	12	8	10-1/2	19-1/2
8"	11-1/2	8-1/8	8-1/2	-	22-1/2	5-5/8	9-3/4	5-1/2	37-3/4	29-1/4	14	10-3/4	13-1/4	25-1/2
10"	13	10-1/2	10	-	26-1/2	7	11-3/4	7	45-3/4	35-3/8	18	12-1/2	14-7/8	31-1/2
12"	14	10-3/4	11-1/4	-	30	8-1/2	12	8-1/2	53-1/8	40-5/8	18	12-1/2	15	37-3/4

#### **ENGINEERING FEATURES**



Delrin thrust bearings above and below the thrust collar reduce friction and minimize operating torques.

#### **COPPER ALLOY STEM**

Long, trouble-free life with high strength, non-corrosive copper alloy stem and stem nut.

#### **STAINLESS STEEL HARDWARE**

304 stainless steel nuts and bolts provide long-life corrosion protection.

#### **100% COATED WEDGE**

100% coated wedge ensures bubble-tight seal every time up to 250 PSI. With twin seal design.

#### **ELLIPTICAL BOLT HOLES**

Hole design on MJ connection eliminates the need for anti-rotation bolts.

#### **MINIMAL FLOW LOSS**

Smooth, unobstructed waterway is free of pockets, cavities and depressions, allowing for minimal flow loss and lower pumping costs. All valves accept full-size tapping cutter.

### REPLACEABLE O-RINGS

Two O-ring seals are replaceable with the valve fully open and subjected to full-rated working pressure.

#### **NO FLAT GASKETS**

O-ring seals at stuffing box and bonnet to body flanges to ensure the best possible seal. No flat gaskets.

#### **EPOXY COATING**

M&H corrosion resistant fusion-bonded epoxy coating, conforming to AWWA C550 and NSF 61 Certified, protects both inside and outside of valve.

#### **EASY STORAGE**

Pads on the bottom of all valves keep valve in upright position for easier storage and protection from the elements.



#### COMMITTED TO ENVIRONMENTAL RESPONSIBILITY

M&H 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.

To learn more about our commitment to the environment, call 256-237-3521

#### RECOMMENDED SPECIFICATIONS

- Valves shall conform to the latest revision of AWWA Standard C509 covering resilient seated gate valves for water supply service.
- 2. The valves shall have an iron body, bonnet, and 0-ring plate. The wedge shall be totally encapsulated with rubber.
- 3. The sealing rubber shall be permanently bonded to the wedge per ASTM D429.
- Valves shall be supplied with 0-ring seals at all pressure retaining joints. No flat gaskets shall be allowed.
- 5. The valves shall be either non-rising stem or rising stem, opening by turning left or right, and provided with 2" square operating nut or a handwheel with the word "Open" and an arrow to indicate the direction to open.
- Stems shall be cast copper alloy with integral collars in full compliance with AWWA. All stems shall operate with copper alloy stem nuts independent of wedge and of stem (in NRS valves).

- 7. All stems shall have two 0-rings located above thrust collar and one 0-ring below. Stem 0-rings shall be replaceable with valve fully opened and subjected to full pressure. The stems on 2" 12" shall also have a low torque thrust bearing located above and below the stem collar to reduce friction during operation.
- Waterway shall be smooth, unobstructed and free of all pockets, cavities and depressions in the seat area. Valves 2" and larger shall accept a full size tapping cutter.
- The body, bonnet and O-ring plate shall be fusion-bonded epoxy coated, both interior and exterior on body and bonnet. Epoxy shall be applied in accordance with AWWA C550 and be NSF 61 Certified.
- 10. Each valve shall have maker's name, pressure rating, and year in which it was manufactured cast in the body. Prior to shipment from the factory, each valve shall be tested by hydrostatic pressure equal to the requirements of AWWA C509 (and UL/FM where applicable).
- Valves shall have all component parts cast and assembled in the USA and shall be manufactured by the M&H Valve Company.







www.mh-valve.com



M&H VALVE COMPANY

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PHONE 256-237-3521 FAX 888-549-5309



For Generations

## SPECIFICATIONS / AVAILABLE CONFIGURATIONS & STYLE NUMBERS (2"- 12")

# M&H AWWA C509 RESILIENT WEDGE GATE VALVES (1993)

#### M&H Valve AWWA C509 Resilient Wedge Gate Valves Meet or Exceed the Requirements of AWWA Standard C509

Size Range	Water Working	Bubble Tight	Hydrostatic Shell		
	Pressure psi	Seat Test psi	Test psi		
AWWA 2" – 12"	250 Water Works	250 & 400	500		
ULFM 4" – 12"	200 Fire Protection	250 & 400	500		

	Style No.	Style No.	Style No.
Size	With	With	With
Range	2" Nut	Hand wheel	Post Plate
2"-12"	4067-01	4067-01-HW	4067-01P (3"-12")
2"-12"	4067-02	4067-02-HW	4067-02P (3"-12")
3"-12"	4067-13	4067-13-HW	4067-13P (3"-12")
2"-12"	4067-03	4067-03-HW	4067-03P (3"-12")
2"-3"	4067-07	4067-07-HW	4067-07P (3" only)
2"-3"	4067-07TI	HN (With T-Head	l Nut)
2"-3"	N/A	4068-07	
4"-12"	4067-22	4067-22-HW	4067-22P (4"-12")
4"-12"	4067-23	4067-23-HW	4067-23P (4"-12")
2"-12"	N/A	4068 & 4068A*	N/A
4"-12"	4751-01	4751-01HW	4751-01P (4"-12")
4"-12"	4576-01	4576-01-HW	4576-01P (4"-12")
3"-12"	4211-O	4211-O-HW	N/A
4"-12"	4211-C	4211-C-HW	N/A
	Range 2"-12" 2"-12" 3"-12" 2"-12" 2"-3" 2"-3" 4"-12" 4"-12" 4"-12" 4"-12" 3"-12"	Size         With           Range         2" Nut           2"-12"         4067-01           2"-12"         4067-02           3"-12"         4067-13           2"-12"         4067-03           2"-3"         4067-07           2"-3"         4067-07TI           2"-3"         N/A           4"-12"         4067-22           4"-12"         4067-23           2"-12"         N/A           4"-12"         4751-01           4"-12"         4576-01           3"-12"         4211-O	Size         With         With           Range         2" Nut         Hand wheel           2"-12"         4067-01         4067-01-HW           2"-12"         4067-02         4067-02-HW           3"-12"         4067-13         4067-13-HW           2"-12"         4067-03         4067-03-HW           2"-3"         4067-07         4067-07-HW           2"-3"         4067-07THN (With T-Head           2"-3"         N/A         4068-07           4"-12"         4067-22         4067-22-HW           4"-12"         4067-23         4067-23-HW           2"-12"         N/A         4068 & 4068A*           4"-12"         4751-01         4751-01HW           4"-12"         4576-01         4576-01-HW           3"-12"         4211-O         4211-O-HW

Notes: \*4068A is Tapped & Plugged in "A" Position  $(2" - 4" = \frac{1}{2}" \tan)(6" - 12" = \frac{3}{4}" \tan)$ 

NOTE: It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.





<sup>\*\*</sup>Each size accommodates a full size diameter tapping cutter.

<sup>\*\*\*2&</sup>quot; OS&Y Flanged and Threaded versions are UL Listed.

<sup>\*\*\*\*</sup>Can provide with all available end connections.

<sup>2&</sup>quot; and 2 1/2" are not included in AWWA C509.

# RECOMMEND SPECIFICATIONS (NRS STYLE 4067)(OS&Y STYLE 4068)(2"-12") M&H AWWA C509 RESILIENT WEDGE GATE VALVES (1993)

#### RECOMMENDED SPECIFICATIONS (2"-12")

- 1. Valves shall conform to the latest revision of AWWA Standard C509 covering resilient seated gate valves for water supply service.
- 2. The valves shall have an iron body, bonnet, and O-ring plate. The wedge shall be totally encapsulated with rubber.
- 3. The sealing rubber shall be permanently bonded to the wedge per ASTM D-429.
- 4. Valves shall be supplied with O-ring seals at all pressure retaining joints. No flat gaskets shall be allowed.
- 5. The valves shall be either non-rising stem or rising stem, opening by turning left or right, and provided with 2" square operating nut or a handwheel with the word "Open" and an arrow to indicate the direction to open.
- 6. Stems shall be cast copper alloy with integral collars in full compliance with AWWA. All stems shall operate with copper alloy stem nuts independent of wedge and of stem (in NRS valves). OS&Y (rising stems) shall be bronze
- 7. All stems shall have two O-rings located above the thrust collar and one O-ring below. Stem O-rings shall be replaceable with valve fully opened and subjected to full pressure.
- 8. The stems on 2"-12" shall also have a low torque thrust bearing located above and below the stem collar to reduce friction during operation.
- 9. Waterway shall be smooth, unobstructed and free of all pockets, cavities and depressions in the seat area. Valves 2" and larger shall accept a full size tapping cutter.
- 10. The body, bonnet and O-ring plate shall be fusion-bonded epoxy coated, both interior and exterior on body and bonnet. Epoxy shall be applied in accordance with AWWA C550 and be NSF 61 Certified.
- 11. Each valve shall have maker's name, pressure rating, and year in which it was manufactured cast in the body. Country of origin to be clearly cast into body & cover castings.
- 12. Prior to shipment from the factory, each valve shall be tested by hydrostatic pressure equal to the requirements of AWWA C509 (and UL/FM where applicable).
- 13. Valves shall have all component parts cast and assembled in the USA and shall be manufactured by the M&H Valve Company.

NOTE: It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

September 1, 2012 / C509 Gate Valves

# PRODUCT ANALYSIS (2"-12)

# M&H AWWA C509 RESILIENT WEDGE GATE VALVES (1993)

FEATURES	BENEFIT
2"-12" Bubble Tight Closure at 250 psi (AWWA Service)	No Leakage – No loss of water
Wedge Has Dual Rubber Seal	• Assures drop-tight shut-off in either direction.
Smooth, Unobstructed Waterway to Maximize Flow.	<ul> <li>High flow characteristics</li> <li>100% smooth passage without turbulent flow</li> <li>No sediment build up</li> <li>Will not impede travel of line cleaning tools</li> </ul>
Only Three Internal Parts	Virtually maintenance free
Integral Cast Tongue and Groove Between Wedge and Valve Body.	Positive gate alignment every time
No Metal Seat Rings	Nothing to be damaged by scoring
Delrin* Anti-Friction Thrust Bearing	• Operating torque to close and open held to absolute minimum
Solid, Bronze Stem Nut and High Strength Bronze Stem	<ul><li>No corrosion</li><li>Trouble free service</li></ul>
Stem Nut is Self Centering	• Eliminates possible stress on stem and wedge
Two O-Ring Seals Above Stem Thrust Collar and One Below	• Two O-Rings can be replaced with valve in service (Valve needs to be fully opened)
High Strength Iron Wedge Fully Encapsulated with Rubber Permanently Bonded to Metal.	<ul> <li>Trouble free service with minimum maintenance</li> <li>No leaks – no wear</li> </ul>
No Lubrication Required	• Trouble free service
Body / Bonnet Epoxy Coating Inside & Out	Unprecedented Protection Against Corrosion and abrasion
10 Year Limited Warranty Against Defective Materials or	• Customer assurance that M&H believes in
Workmanship	the strong product they produce.
American Cast and Assembled	<ul><li>American Jobs</li><li>American backed for more than 100 years</li><li>American quality and accountability</li></ul>

<sup>\*</sup> DuPont Trademark

NOTE: It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

PERFORMANCE INFORMATION (AWWA & UL/FM)

# M&H AWWA C509 RESILIENT WEDGE GATE VALVES (1993)

#### 2"-12" AWWA PERFORMANCE INFORMATION

- 1. Valve complies with AWWA C509 specs where applicable.
- 2. Valve is rated at 250psi working pressure.
- 3. Valve is bubble-tight at all pressures up to full rated pressure (250psi).
- 4. Valve has been subjected to torques 150 percent of the designated minimum required torques.
- 5. Valve has been cycle tested full opened to close 5,000 times without loss of bubble-tight seal.
- 6. Rubber to iron bond on wedge is inspected for strength as per ASTM D 429 specification.

#### 4"-12" UL/FM PERFORMANCE INFORMATION

- 1. Valve complies with Underwriters Laboratory standard UL 262.
- 2. Valve is UL/FM rated at 200psi working pressure.
- 3. Valve is bubble-tight at all pressures up to the full rated pressure (200psi)
- 4. Valve is capable of bubble-tight seal at twice the rated pressure (400psi) for short periods of time.
- 5. 4"-6" valve sizes have been hydrostatically shell tested at five times the rated pressure (1,000 psi).
- 6. 8", 10", and 12" valve sizes have been hydrostatically shell tested at four times the rated pressure (800psi).
- 7. Valves has been subjected to torques 150 percent of the designated minimum required torques.
- 8. Valve has been cycle tested 5,000 times without loss of bubble-tight seal.
- 9. Rubber to iron bond on wedge is inspected for strength as per ASTM D 429 specification.

Note: For complete data on the tests Underwriters Laboratories performed reference UL File EX783

NOTE: It is recommended that valves be installed with stems vertical when used in raw sewage or sludge applications or in water with excessive sediment.

September 1, 2012 / C509 Gate Valves