Serving the Water & Waste Water Industry Since 1878

IN-PLANT VALVES

M&H Valve is a division of McWane, Inc.

www.mh-valve.com
MORIN ACTUATOR DESCRIPTION:
The Morin Actuator is a heavy-duty, quarter-turn scotch yoke piston design available in ductile iron/carbon steel, ductile iron/stainless steel and all stainless steel through 238,000 in. lbs. of torque. It is available as double acting (air-to-air) and spring return (fail-safe). Available accessories include:
• solenoid valves, positioners, filter/regulator/lubricators
• partial stroke test device
• lockout device
• jackscrew, hydraulic overrides
• AWWA tested per C504 for water or pneumatic service

WATER INDUSTRY APPLICATIONS
• filter galleries
• pump control/isolation
• submersible
• fail-safe isolation

Electric motor actuators can be furnished when required. Quarter-turn actuators are available for butterfly and eccentric plug valves. Multi-turn actuators are available for resilient wedges and double disc gate valves.

All actuators contain the following standard accessories: a handwheel for manual operation, open and close position limit switches to assure motor shut-off at the ends of travel, open and close torque limit switches to protect the valve from excessive actuator torque and a separate drive nut or coupling. The motors have been designed for high starting torque and long service life. Quarter-turn actuators are furnished with adjustable end of position mechanical stops.

Optional accessories include intermediate position limit switches, position feedback devices and integral motor controls. Generally, motor controls consist of reversing starters, control transformer, push buttons, selector switches and indicating lights. For these applications requiring control by an analog signal (usually 4-20 mADC), a positioner can be furnished with motor controls.
M&H ECCENTRIC PLUG VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
Flanged End 3”– 24”
M.J. 3”– 24”
Grooved 3”– 16”

ACCESSORIES
Floorstands
Extension Stems
2” sq. Operating Nuts
Handwheels
Lever Wrench Head
Chainwheels
Worm Gear Actuators
Electric Motor Actuators
Cylinder Actuators
Limit Switches
Stem Guides
Floor Boxes
“T” Handles
Chain levers
Extended Bonnet

M&H BUTTERFLY VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
Flanged End 3”– 54”
M.J. 4”– 48”
Flanged X MJ
Wafer 6”, 8”, 12”, 16”

ACCESSORIES
Floorstands
Extension Stems
Solenoid Valves
Positioners
Chainwheels
2” sq. Operating Nuts
Handwheels
Cranks
“T” Handles
Floor Boxes
Extended Bonnet

M&H RESILIENT WEDGE (R/W) AND DOUBLE DISC GATE VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
End Connection R/W® Double Disc
Flanged End 2”– 54” 4”– 48”
M.J. 2”– 48” 4”– 48”
Flanged End (OS&Y) 2”– 24” 14”– 48”

 ACCESSORIES
Floorstands
Solenoid Valves
Positioners
Chainwheels
2” sq. Operating Nuts
Handwheels
Cranks
“T” Handles
Floor Boxes
Extended Bonnet

For additional end connections, please contact your local representative.

RESILIENT WEDGE

SIZE RANGE
Water Working Pressure PSI 200 200 400
Bubble-Tight Test PSI 200 200 400
Hydrostatic Shell Test PSI 200 200 400

DOUBLE DISC GATE VALVE

SIZE RANGE
Water Working Pressure PSI 200 400
Hydrostatic Test PSI 300 300

Also available: High pressure double disc gate valve.

Contact your local representative for sizes up to 120”.

SIZE RANGE
Water Working Pressure PSI 175 265
Hydrostatic Test PSI 150 225

SIZE RANGE
Water Working Pressure PSI 150 150 300
Bubble-Tight Test PSI 150 150 300
Hydrostatic Test PSI 300 300 300

SIZE RANGE
Water Working Pressure PSI 250 250 500
Bubble-Tight Test PSI 250 250 500
Hydrostatic Test PSI 250 250 500

SIZE RANGE
Water Working Pressure PSI 250 500
Bubble-Tight Test PSI 250 500
Hydrostatic Test PSI 250 500

SIZE RANGE
Water Working Pressure PSI 200 300
Bubble-Tight Test PSI 150 300
Hydrostatic Test PSI 150 300
M&H SWING CHECK VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
- Flanged End, Non-Rising Stem  4" – 24"
- Flanged End, Rising Stem  4" – 24"

NOTE:
Flanged ends are faced and drilled to ANSI 125 pound template except holes under yoke/flange connection.

ACCESSORIES
- Handwheels
- 2" Square Operating Nut
- Floorstands
- Extension Stems
- Electric Motor with Extension Stem
- Manual Actuator
- "T" Handles
- Stem Guides
- Floor Boxes

AVAILBLE END CONNECTIONS & SIZE RANGE
- Flanged  2" – 30" (Plain)
- Flanged  2" – 30" Outside Weight & Lever
- Flanged  2" – 30" Outside Spring & Lever

ACCESSORIES
- Outside Weight and Lever
- Outside Spring and Lever
- Limit Switches
- Iron Rubber Faced Gates

M&H KENFLEX RESILIENT SEATED CHECK VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
- Flanged – (Plain)
- Flanged – Outside Spring & Lever
- Flanged – Outside Weight & Lever

ACCESSORIES
- Outside Weight and Lever
- Outside Spring and Lever
- Iron Rubber Faced Gates

M&H INCREASING SWING CHECK VALVES

AVAILABLE END CONNECTIONS & SIZE RANGE
- Flanged  4" – 30" Outside Weight and Lever

ACCESSORIES
- Outside Weight and Lever
- Iron Rubber Faced Gates

<table>
<thead>
<tr>
<th>SIZE RANGE</th>
<th>Water Working PSI</th>
<th>Hydrostatic Shell Pressure PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot; – 12&quot;</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>14&quot; – 30&quot;</td>
<td>150</td>
<td>300</td>
</tr>
</tbody>
</table>

M&H MUD VALVES

SIZE RANGE
- 4" – 24"  Recommended for use in lines of low seating or unseating pressures only

M&H KUSHIONED SWING CHECK VALVE

SIZE RANGE

<table>
<thead>
<tr>
<th>SIZE RANGE</th>
<th>Water Working PSI</th>
<th>Hydrostatic Shell Pressure PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; – 12&quot;</td>
<td>200</td>
<td>400</td>
</tr>
<tr>
<td>14&quot; – 30&quot;</td>
<td>150</td>
<td>300</td>
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</table>

M&H RESILIENT SEATED CHECK VALVES

<table>
<thead>
<tr>
<th>SIZE RANGE</th>
<th>Water Working Pressure PSI</th>
<th>Hydrostatic Shell Pressure PSI</th>
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<tbody>
<tr>
<td>4&quot; – 12&quot;</td>
<td>250</td>
<td>500</td>
</tr>
<tr>
<td>6&quot; X 8&quot;</td>
<td>100</td>
<td>200</td>
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</table>

M&H INCREASING SWING CHECK VALVES

<table>
<thead>
<tr>
<th>SIZE RANGE</th>
<th>Water Working Pressure PSI</th>
<th>Hydrostatic Shell Pressure PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot; X 4&quot;</td>
<td>8&quot; X 10&quot;</td>
<td></td>
</tr>
<tr>
<td>4&quot; X 6&quot;</td>
<td>8&quot; X 12&quot;</td>
<td></td>
</tr>
<tr>
<td>4&quot; X 8&quot;</td>
<td>10&quot; X 12&quot;</td>
<td></td>
</tr>
<tr>
<td>6&quot; X 8&quot;</td>
<td>6&quot; X 10&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Water Working Pressure 175 PSI
Hydrostatic Shell Pressure 350 PSI
M&H SHEAR GATE VALVES

F3000-T

AVAILABLE END CONNECTIONS & SIZE RANGE
Flanged End Frame 4” – 30”

NOTE:
Flanged End Frame is faced and drilled to ANSI 125 pound template.

ACCESSORIES
Lifting Handle and Hooks

M&H FLOOR TYPE PRESSURE RELIEF VALVES

F3012-T

AVAILABLE END CONNECTIONS & SIZE RANGE
Flanged End 4” – 30”

ACCESSORIES
4” & 6” F-1496T Wall Pipe with Grate

M&H WALL TYPE PRESSURE RELIEF VALVE

F3012-T

AVAILABLE END CONNECTIONS & SIZE RANGE
Flanged End 4” – 30”

SIZE RANGE
4” – 30”

Working Pressure
Valves unseat and swing open under unseating pressure to release the outfall fluid and close when pressure is relieved.

PRESSURE:
The cover for the Pressure Relief Valve weighs approximately 6 lbs. and starts to open at a head of approximately 9” of water.

INSTALLATION:
In order for the F-1493T Floor Type Valve to operate correctly, it must be installed in a vertical position.

Length can be increased to desired dimension by adding PVC or Ductile pipe into bell.

SIZE
4” & 6”

Standard Body
Length (inches) 8”

Working Pressure
Recommended for use in lines of low seating and unseating pressures only

NOTICE:
Flanged End is faced and drilled to ANSI 125 pound template.
ACCESSORIES

**FLOOR STANDS**
F-5500-T Standard Pattern N.R.S.
F-5505-T Standard Pattern N.R.S.
Indicating

**FLOOR BOX**
F-5695-T Bushed
Max. Length 12”
Min. Length 8”
Max. Stem Dia. 1 3/4”

**STEM GUIDES F-5660-T**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>MIN. LENGTH</th>
<th>MAX. LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3</td>
<td>2 1/2”</td>
<td>17”</td>
</tr>
<tr>
<td>#5</td>
<td>15”</td>
<td>24”</td>
</tr>
<tr>
<td>#6</td>
<td>24”</td>
<td>35”</td>
</tr>
</tbody>
</table>

**T-HANDLE VALVE WRENCHES**
F-2520-T Rigid Wrench

**EXTENSION STEMS**
Diameters up to 2 1/2”
Any Length

**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.

www.mh-valve.com

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605 West 23rd Street • Anniston, Alabama 36201
PHONE 256-237-3521  FAX 256-741-6253

M&H Valve is a division of McWane, Inc.
SIZE RANGE
PRESSURE RATING
ACCESSORIES / OPTIONS
SUGGESTED SPECIFICATIONS

M&H VALVE—SHEAR GATES (4”-30”) STYLE 44-02

<table>
<thead>
<tr>
<th>SIZE RANGE</th>
<th>WORKING PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>4”-30”</td>
<td>Recommended for use in lines of low seating pressure only.</td>
</tr>
</tbody>
</table>

Note: Seating pressure is tending to push gate to seat.

<table>
<thead>
<tr>
<th>Available End Connections</th>
<th>Size Range</th>
<th>Style No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flanged End Frame</td>
<td>4”-30”</td>
<td>44-02</td>
</tr>
</tbody>
</table>

Note: Flanged End Frame are faced and drilled to ANSI 125lb. template.

Accessories / Options:
Lifting Handle & Hooks

SUGGESTED SPECIFICATIONS:
Shear gate shall be full opening; circular port, iron body bronze mounted design and furnished with flanged ends.

The body (frame), gate and wedges shall be of cast iron conforming to ASTM specification A-126 Class B.

The valve shall be furnished with a wedge bolted to the body so they can easily be removed and replaced due to wear.

The gate shall be sturdily proportioned and pivot on a solid bronze hinge bolt.

The bronze gate (seat ring shall be rolled into a dovetailed groove under pressure to make one inseparable unit. The bronze gate ring face shall be machined to a smooth finish. The body seat ring shall be bronze, threaded and screwed into place and the face machined to a smooth finish.

Lift rods are used to manually raise and lower the Shear Gate disc from a position above the gate. A cast iron catch hook may be adjusted on the lift rod to allow the rod to be hung on a hanger placed in the wall. Lift rod material is ¾” dia. Carbon steel. Catch and loop handle are cast iron. Lift rods may be made to specified length in 6” increments.

July 2005 / M&H Shear Gates
Furnished with two foot lift handle and catch

Longer lift handle furnished when specified

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>REQ'D</th>
<th>MATERIAL</th>
<th>ASTM</th>
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<tbody>
<tr>
<td>1</td>
<td>BODY</td>
<td>1</td>
<td>CAST IRON</td>
<td>A126</td>
</tr>
<tr>
<td>2</td>
<td>SEAT RING</td>
<td>1</td>
<td>BRONZE</td>
<td>B62</td>
</tr>
<tr>
<td>3</td>
<td>LIFT HANDLE DISC W/BR</td>
<td>1</td>
<td>STEEL</td>
<td>A107</td>
</tr>
<tr>
<td>4</td>
<td>DISC RING</td>
<td>1</td>
<td>CAST IRON</td>
<td>A126</td>
</tr>
<tr>
<td>5</td>
<td>RIGHT HAND WEDGE</td>
<td>1</td>
<td>CAST IRON</td>
<td>A126</td>
</tr>
<tr>
<td>6</td>
<td>WEDGE BOLT</td>
<td>2</td>
<td>STEEL</td>
<td>ASA B18.2</td>
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<tr>
<td>7</td>
<td>Hinge Bolt</td>
<td>1</td>
<td>BRONZE</td>
<td>B62</td>
</tr>
<tr>
<td>8</td>
<td>Hinge Bolt Nut</td>
<td>1</td>
<td>BRONZE</td>
<td>B62</td>
</tr>
<tr>
<td>9</td>
<td>SET SCREW</td>
<td>1</td>
<td>STEEL</td>
<td>PLATED</td>
</tr>
</tbody>
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M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO. SGV-A1

4” THRU 30” SHEAR GATES
VALVE ASSEMBLY / MATERIAL LIST
STYLE 44-02
FLANGED END

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General
Inspect all assemblies at time of delivery for shipping damage and to confirm compliance with order. The valve should be protected from rough handling. Water and debris should not be allowed to collect in valve.

I. Installation
A. Check that valve end joints are clean
B. Remove any material used to restrain the gate during shipment and storage.
C. The gate should be checked to insure freedom of motion and proper operation.
D. When handling the valve, do not use the outside mechanisms for lifting.
E. Prepare pipe end as required, and install valve as per appropriate instructions for the specified joint. The valve is mounted 30 degrees offset from the vertical centerline to allow for proper closure.

II. Operations
Once installed, operation of the shear gate is simple and straightforward, using the lift handle to open and close the gate. The valve may be held in various open positions by using the adjustable catch hook on the lift handle.

III. Maintenance
Inspection should be conducted at least once a year. Joint should be visually inspected for leakage. Raise and lower the gate to check for free operation. Check bronze gate ring and seat ring for freedom from damage. The seating may be adjusted by tightening or loosening the hinge bolt nut to change the relationship between the hinge about and wedge. Use a feeler gauge of .004 to adjust gate disc to the proper seat gap around the total seating circumference. Remove any debris found on the inside of valve.

Periodic visual inspection of the coating is recommend with field cleaning and painting as required.

There are no recommended spare parts.

There are no lubrication requirements.

July 2005 / M&H Shear Gates