Electric Motor Operator for: Gate Valves / Butterfly Valves / Plug Valves

M&H VALVE

Almost every business day, M&H is assembling and testing valves with Electric Motor operators.

Electric motor operator may be furnished on NRS and OS&Y Gate Valves, plug valves, & butterfly valves.

Motor operated valves are specified where frequent operation is necessary or where valves are located in remote, inaccessible or hazardous places.

For large valves and frequently used valves, operating costs are reduced and efficiently increased by the remote control possible with electric motor operation. In emergencies, quick operation of valves by electric motor may be extremely vital.

Electric Motor Operated Valves are used in industrial plants, power plants, water plants, sewage disposal systems and miscellaneous pipe lines. Some of their specific uses include the following:

<table>
<thead>
<tr>
<th>Large Valves</th>
<th>Storage Tanks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intakes</td>
<td>Filter Beds</td>
</tr>
<tr>
<td>Outlets</td>
<td>Booster Stations</td>
</tr>
<tr>
<td>Pump Discharge</td>
<td></td>
</tr>
</tbody>
</table>

An electric motor is mounted on the valve and geared to the valve stem so that when the motor operates the valve will open or close. Adjustable limit and torque switches are arranged to stop the motor when the valve is completely opened or closed, or automatically stop the motor if there is any obstruction in the valve to prevent the gate from moving. This prevents damage both to the valve parts and to the motor and gearing. Electric equipment conforms to N.E.M.A. codes. Detailed specifications on the construction and design of motor units and controls will be furnished if desired. Motors are high torque, fully enclosed in weather-proof or explosion-proof housings.

When specified, motor shall include:

- Integral reversing starter package, which includes reversing controller, 120 volt/25 watt heater, 75 VA transformer with fused secondary & 24 point terminal strip. Available in weather-proof, explosion-proof, etc. enclosures.
- Three button – two light push button station for open, stop and close operation with red and green lights to show whether the valve is open or closed. The green light is lit when the valve is closed, the red light is lit when the valve is open. Both red and green lights remain lit when the valve gates are in any intermediate position between open and closed. Various combinations of buttons and lights are available as well as integral, surface or flush mounting in either weather-proof or explosion-proof enclosures.
- Mechanical dial position indicator available when specified for easy to read position of valve gate. Available for local remote and local/remote indication.

Motor operating units are available with auxiliary handwheels for manual operation, which do not turn during electric operation. If the electric current comes on during manual operation, the handwheel of the unit declutches automatically and thus prevents any possible injury to the operator.

July 2005 / M&H Electric Motor Operator
Electric Motor Operator for: Butterfly Valves / Gate Valves / Plug Valves

M&H VALVE

INFORMATION REQUIRED WITH MOTOR OPERATED VALVE ORDER:
1. Type of valve – (Butterfly Valve) (RW Gate Valve)(DD Gate Valve)(Plug Valve)
2. End connection
3. Valve size and quantity.
4. Maximum pressure against which valve will be required to operate (Maximum Differential Pressure) and flow rate in feet/sec. if available.
5. Current Characteristics (Voltage, Phase, Cycles, A.C. or D.C.).
6. Opening or Closing time in seconds or inches per minute (Standard is 12” per minute).
7. Service: Water, etc.
8. Frequency of service; regulating or intermittent duty.
9. Maximum temperature at location of valve control.
10. Type motor desired: Weather-proof, Explosion-proof, etc.
11. Type of Reversing Controller (NEMA-Class).
12. Type of Pushbutton Station (NEMA-Class) (Normally NEMA-1 or NEMA-4).
   (Flush or Surface Mounted) (Number of Push buttons or Lights – Usually 3 buttons, 2 lights).
13. Control Voltage.
14. Any special requirements such as mechanical dial position indicator, hand off automatic switch on pushbutton stations, etc.
15. Complete specification will required with inquiry for all motor valves.

July 2005 / M&H Electric Motor Operated Valves
Cylinder or Hydraulic Operated Valves
M&H VALVE

INFORMATION REQUIRED WITH CYLINDER OPERATED VALVE ORDER:
1. Type of valve – (Butterfly Valve) (Plug Valve)
2. End connection
3. Valve size and quantity.
4. Supply pressure provided.
5. If limit switches are required.
6. 2-way or 4-way solenoid – if required.
7. If speed controls are required-what type.
8. Is a positioner required.
9. Single or double acting.
10. What type of cylinder required (i.e. Ply, SS Etc).
11. Air or water pressure provided.
12. Complete specifications will be required with inquiry for all cylinder or motor valves.

July 2005 / M&H Cylinder Operated Valves
The F–5500–T Floor stand is for use on non-rising stem valves. Floor stands are of high strength cast iron and may be provided with extension arms of steel, stainless steel or bronze as specified.
The F-5505-T indicating floor stand is for non-rising stem valves where open/close valve indication is needed. Floor stands are of high strength cast iron and may be provided with extension stems of steel, stainless steel or bronze as specified.

**NOTES:**
- POINTER TRAVELS 1” WITH TURNS OF HANDWHEEL

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>REQ’D</th>
<th>MAT’L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FLOOR STAND</td>
<td>1</td>
<td>C.I.</td>
</tr>
<tr>
<td>2</td>
<td>STEM</td>
<td>1</td>
<td>ST’L</td>
</tr>
<tr>
<td>3</td>
<td>COUPLING</td>
<td>1</td>
<td>C.I.</td>
</tr>
<tr>
<td>4</td>
<td>BOLT</td>
<td>1</td>
<td>ST’L</td>
</tr>
<tr>
<td>5</td>
<td>NUT</td>
<td>1</td>
<td>ST’L</td>
</tr>
<tr>
<td>6</td>
<td>BUSHING</td>
<td>1</td>
<td>BRZ</td>
</tr>
<tr>
<td>7</td>
<td>INDICATOR NUT</td>
<td>1</td>
<td>BRZ</td>
</tr>
<tr>
<td>8</td>
<td>CLOSED TAG</td>
<td>1</td>
<td>ALUM</td>
</tr>
<tr>
<td>9</td>
<td>DRIVE SCREW</td>
<td>1</td>
<td>ST’L</td>
</tr>
</tbody>
</table>

M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MOWANE INC.

FLOOR STAND
STYLE F-5505-T
NON-RISING—INDICATING

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<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>REQ’D</th>
<th>MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BODY</td>
<td>1</td>
<td>CAST IRON A126B</td>
</tr>
<tr>
<td>2</td>
<td>COVER</td>
<td>1</td>
<td>CAST IRON A126B</td>
</tr>
<tr>
<td>3</td>
<td>BUSHING</td>
<td>1</td>
<td>BRASS CDA360</td>
</tr>
</tbody>
</table>

Floor boxes are designed for use with non-rising stem 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.
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.

All components are jig drilled for interchangeability.

When ordering extension stem, state length and give distance from bottom face of flange to top of handwheel or nut, or to base of floor stand.

EXTENSION ROD
DIA.–
LENGTH–
QTY.–

BOLT/NUT ASSEMBLY

ROD COUPLING
WHEN REQUIRED

EXTENSION ROD

2” FEMALE SOCKET COUPLING
C.I. ASTM 126 C30

2” SQ.

3/8” SQ

TO BE SUPPLIED WITH A HANDWHEEL.
2” SQ. NUT, FLOORSTAND OPERATOR AS REQUIRED.

M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACESA

EXTENSION STEM ASSEMBLY
2” SQUARE SOCKET COUPLING
MATERIAL LIST / DIMENSIONS

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Stem Guides are installed as wall brackets to support extension stems. 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 of more than 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 in table.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
<th>MATERIAL</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>BRACKET</td>
<td>1</td>
<td>DUCTILE IRON 65.45.12 MIN.</td>
</tr>
<tr>
<td>2</td>
<td>GUIDE</td>
<td>1</td>
<td>DUCTILE IRON 65.45.12 MIN.</td>
</tr>
<tr>
<td>3</td>
<td>BUSHING</td>
<td>1</td>
<td>BRASS CDA 360</td>
</tr>
<tr>
<td></td>
<td>ASSEMBLY BOLTS &amp; NUTS</td>
<td>4</td>
<td>PLATED STEEL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
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</thead>
<tbody>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACSG-5660

STEM GUIDES
STYLE F-5660-T
Size 3, 5, & 6

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Chain Wheels are normally used for operation of valves located overhead. They are provided with chain guides to prevent the chain from slipping off the wheel. Chains can be furnished rust proof if specified. Chain Wheels are mounted directly on the handwheel, and are of approximately the same diameter.

In ordering, please state the distance from floor to center line of wheel, or give the exact number of feet of chain required.

Note: Furnished with Rust-Proof Lock Link Steel Chain

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Size No.</th>
<th>Diameter of sprocket wheel in inches</th>
<th>Weight in lbs.</th>
<th>Diameter of valve wheel rim will fit</th>
<th>Chain weight per 100' in lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(\frac{1}{2})</td>
<td>7(\frac{1}{2})</td>
<td>5</td>
<td>6 to 7(\frac{1}{2})</td>
<td>17(\frac{1}{2})</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>8</td>
<td>7(\frac{1}{2}) to 9</td>
<td>17(\frac{1}{2})</td>
</tr>
<tr>
<td>2(\frac{1}{2})</td>
<td>12(\frac{1}{2})</td>
<td>14</td>
<td>9(\frac{1}{2}) to 12(\frac{1}{2})</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>15(\frac{1}{2})</td>
<td>19</td>
<td>12(\frac{1}{2}) to 15(\frac{1}{2})</td>
<td>30</td>
</tr>
<tr>
<td>3(\frac{3}{4})</td>
<td>19</td>
<td>28</td>
<td>15(\frac{1}{2}) to 19</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>37</td>
<td>19(\frac{1}{2}) to 22</td>
<td>35</td>
</tr>
<tr>
<td>4(\frac{1}{2})</td>
<td>26</td>
<td>47</td>
<td>22(\frac{1}{2}) to 26</td>
<td>35</td>
</tr>
<tr>
<td>5</td>
<td>30</td>
<td>58</td>
<td>26(\frac{1}{2}) to 30</td>
<td>35</td>
</tr>
</tbody>
</table>
AVAILABLE AS
24" THRU 144" IN
12" INCREMENTS

2" SOCKET C.I.

2.6250"

2.8750"

M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO.: THW1

T-HANDLE SOCKET WRENCH

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