

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:

Large Valves	Storage Tanks
Intakes	Filter Beds
Outlets	Booster Stations
Pump Discharge	

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.

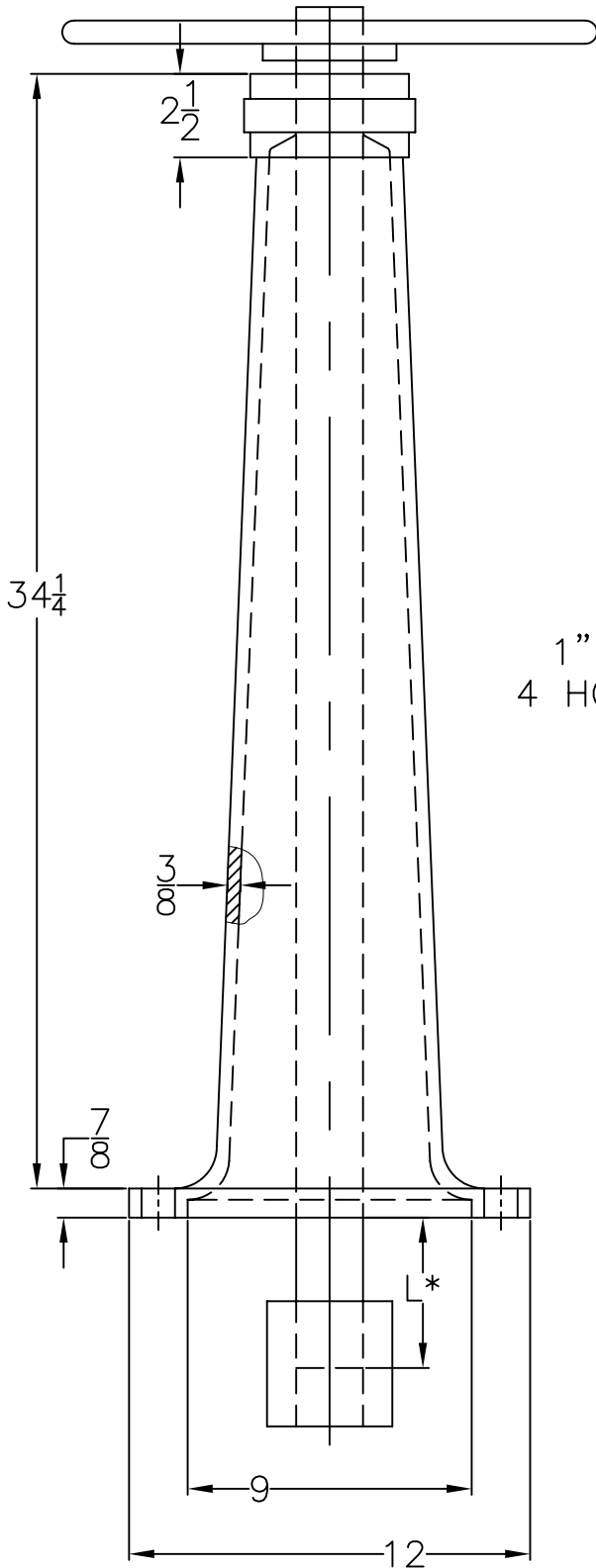
Cylinder or Hydraulic Operated Valves

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.

HAND WHEEL ROTATION: OPEN LEFT



NOTES:

N* = 17"

SHOP COAT IS RUST INHIBITIVE PRIMER

1" HOLE THRU
4 HOLES AT 90°

10 1/4 DIA B.C.

CORED HOLE:
BORED AND BUSHED
TO STEM DIA

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.

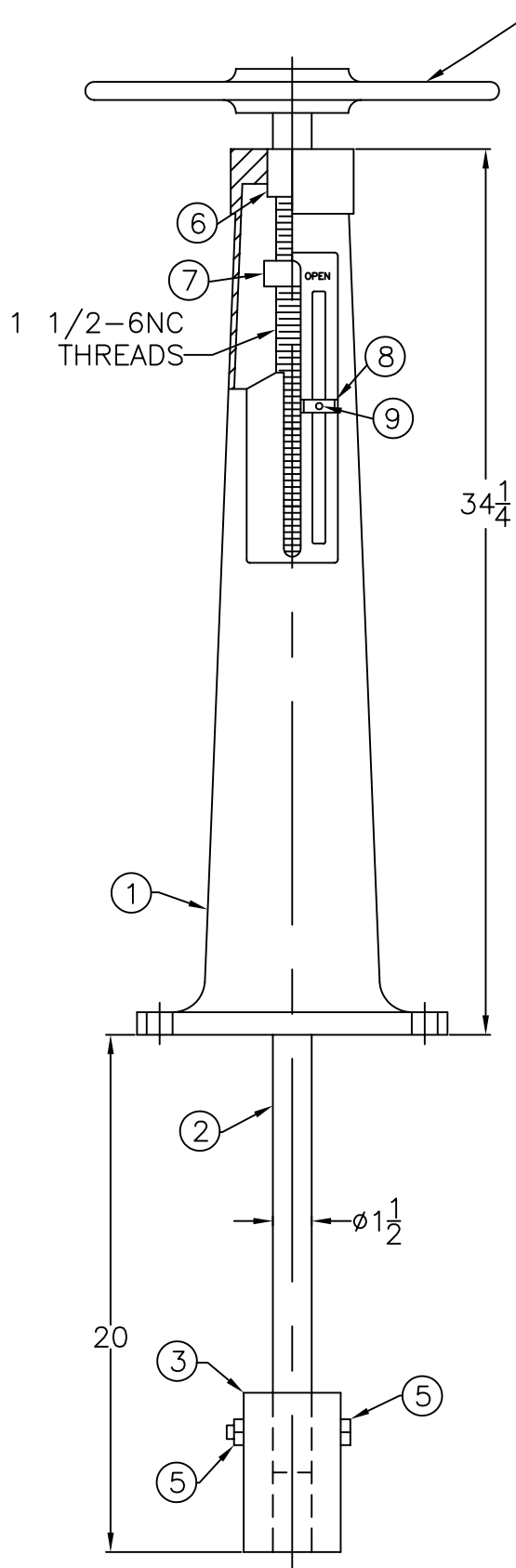
M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ

DATE: 7/1/05

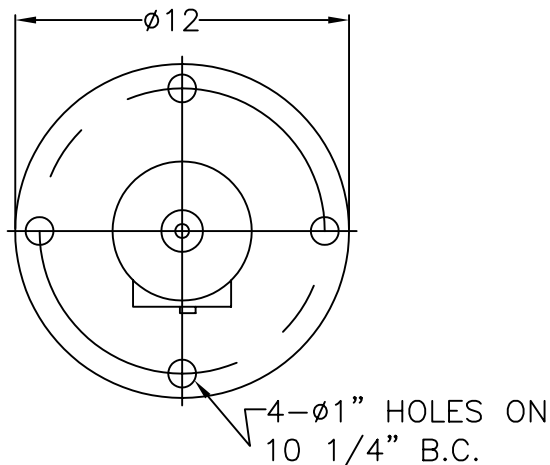
DWG. NO.
ACFS-5500

FLOOR STAND
STYLE F-5500-T
NON-RISING / NON-INDICATING



HANDWHEEL FURNISHED OR
2" SQ. NUT WHEN REQUESTED

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

ITEM	DESCRIPTION	REQ'D	MAT'L
1	FLOOR STAND	1	C.I.
2	STEM	1	ST'L
3	COUPLING	1	C.I.
4	BOLT	1	ST'L
5	NUT	1	ST'L
6	BUSHING	1	BRZ
7	INDICATOR NUT	1	BRZ
8	CLOSED TAG	1	ALUM
9	DRIVE SCREW	1	ST'L

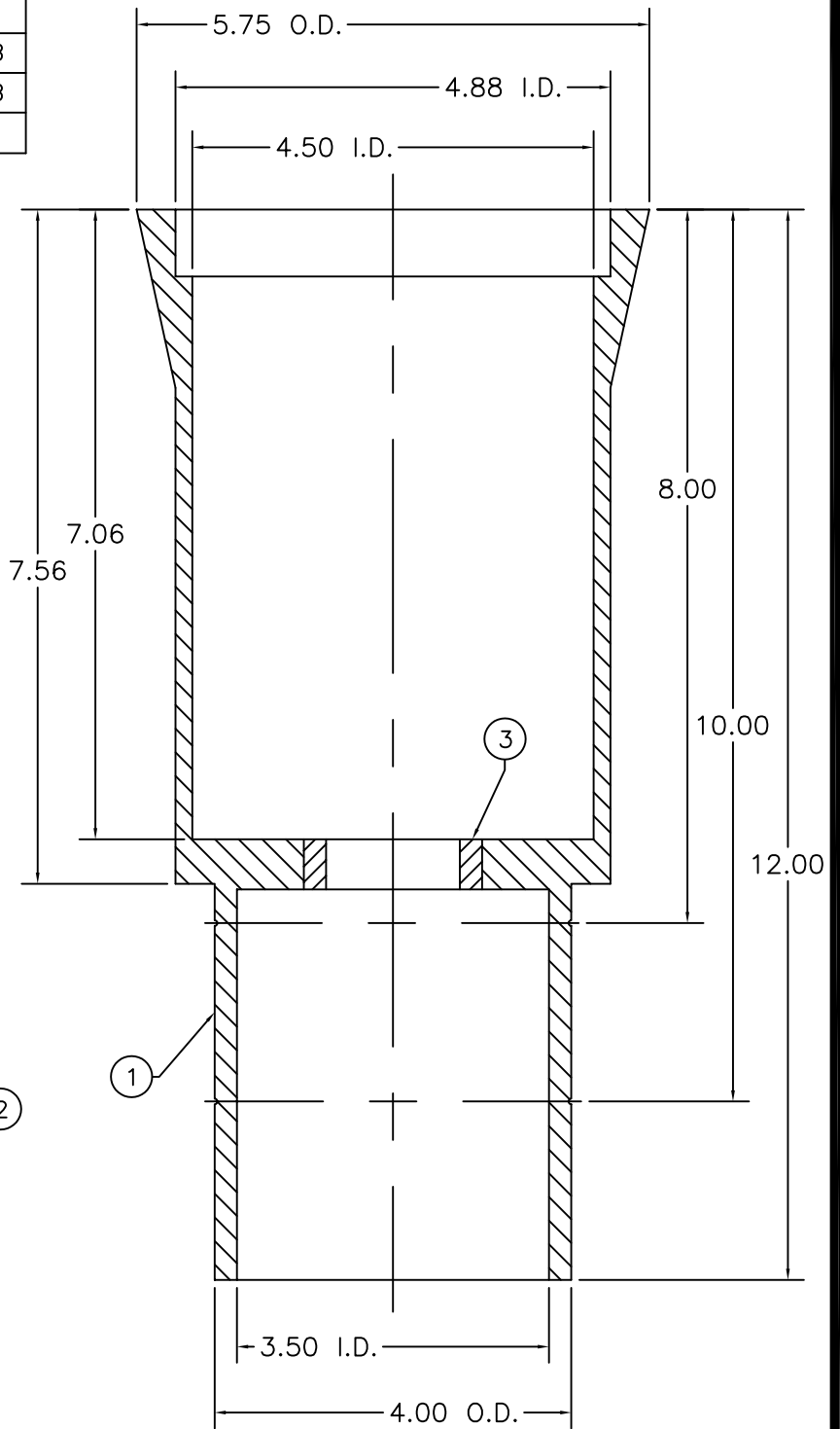
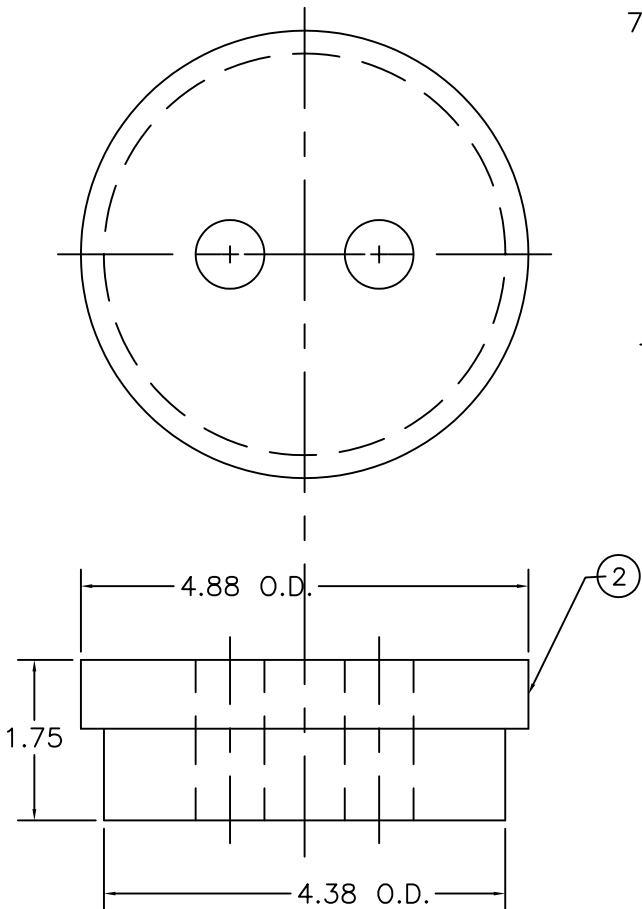
M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACFS-5505

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

ITEM	DESCRIPTION	REQ'D	MATERIAL
1	BODY	1	CAST IRON A126B
2	COVER	1	CAST IRON A126B
3	BUSHING	1	BRASS CDA360

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.



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DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACFB-5695

FLOOR BOX
STYLE F-5695-T

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.

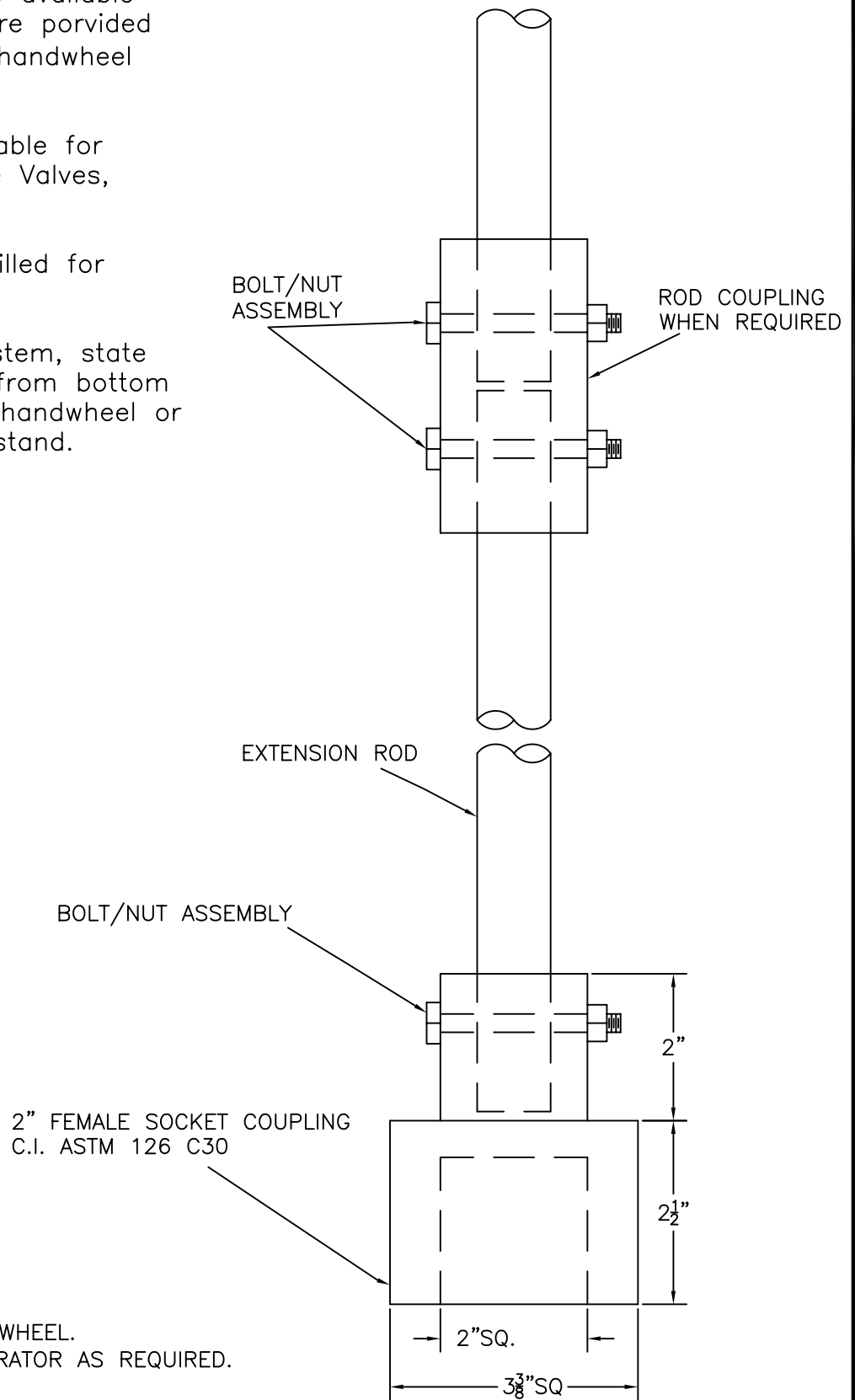
All components are jig drilled for interchangeability.

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.— _____



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

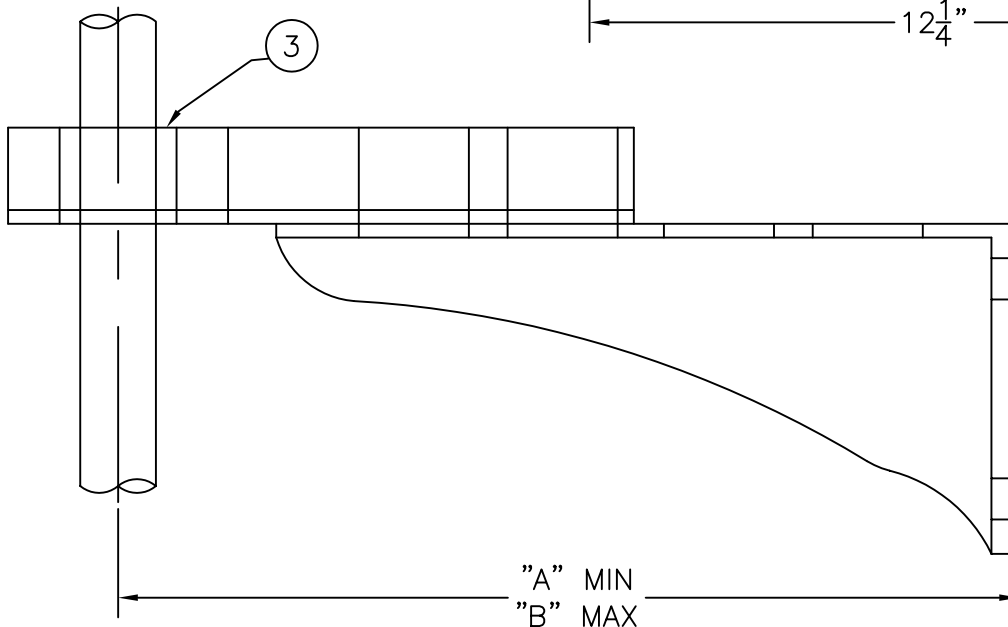
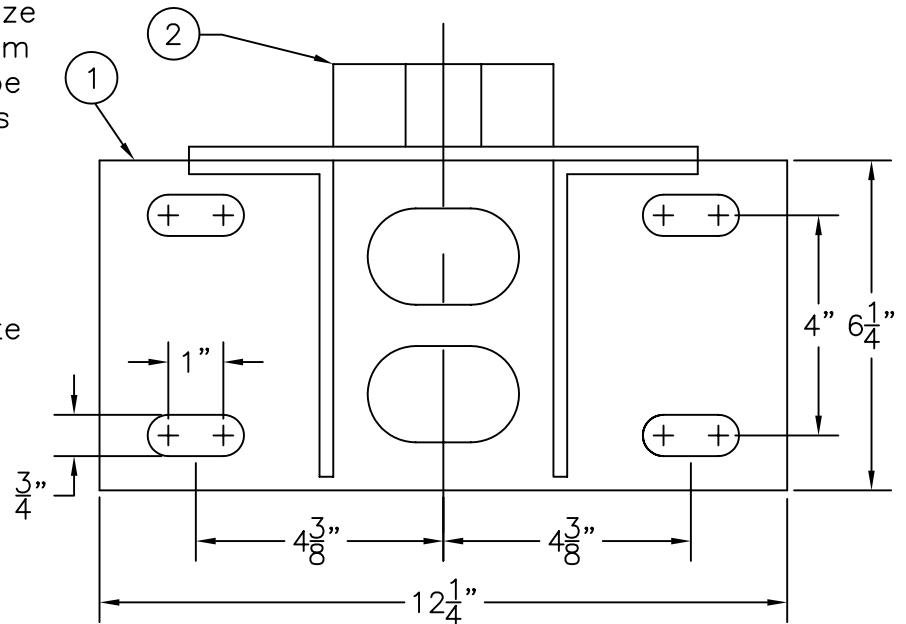
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DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACESA

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

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 show in table.



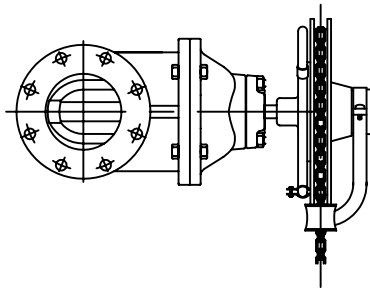
ITEM	DESCRIPTION	QTY.	MATERIAL
1	BRACKET	1	DUCTILE IRON 65.45.12 MIN.
2	GUIDE	1	DUCTILE IRON 65.45.12 MIN.
3	BUSHING	1	BRASS CDA 360
	ASSEMBLY BOLTS & NUTS	4	PLATED STEEL

DIMENSIONS			
SIZE	3	5	6
A	2 1/2	15	24
B	17	24	35

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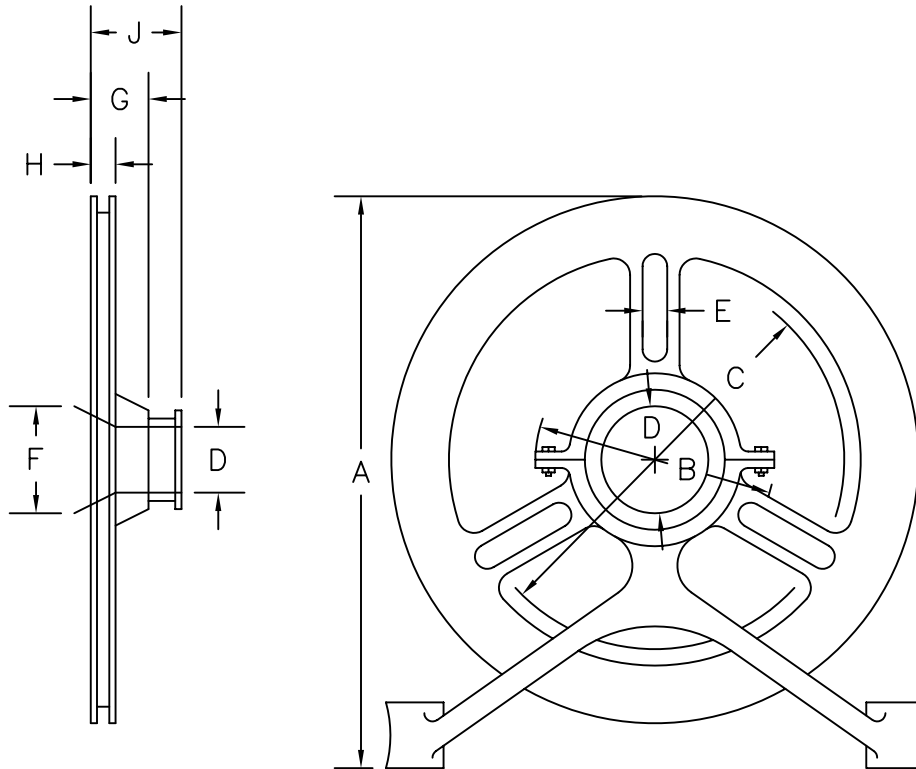
DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACSG-5660

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



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

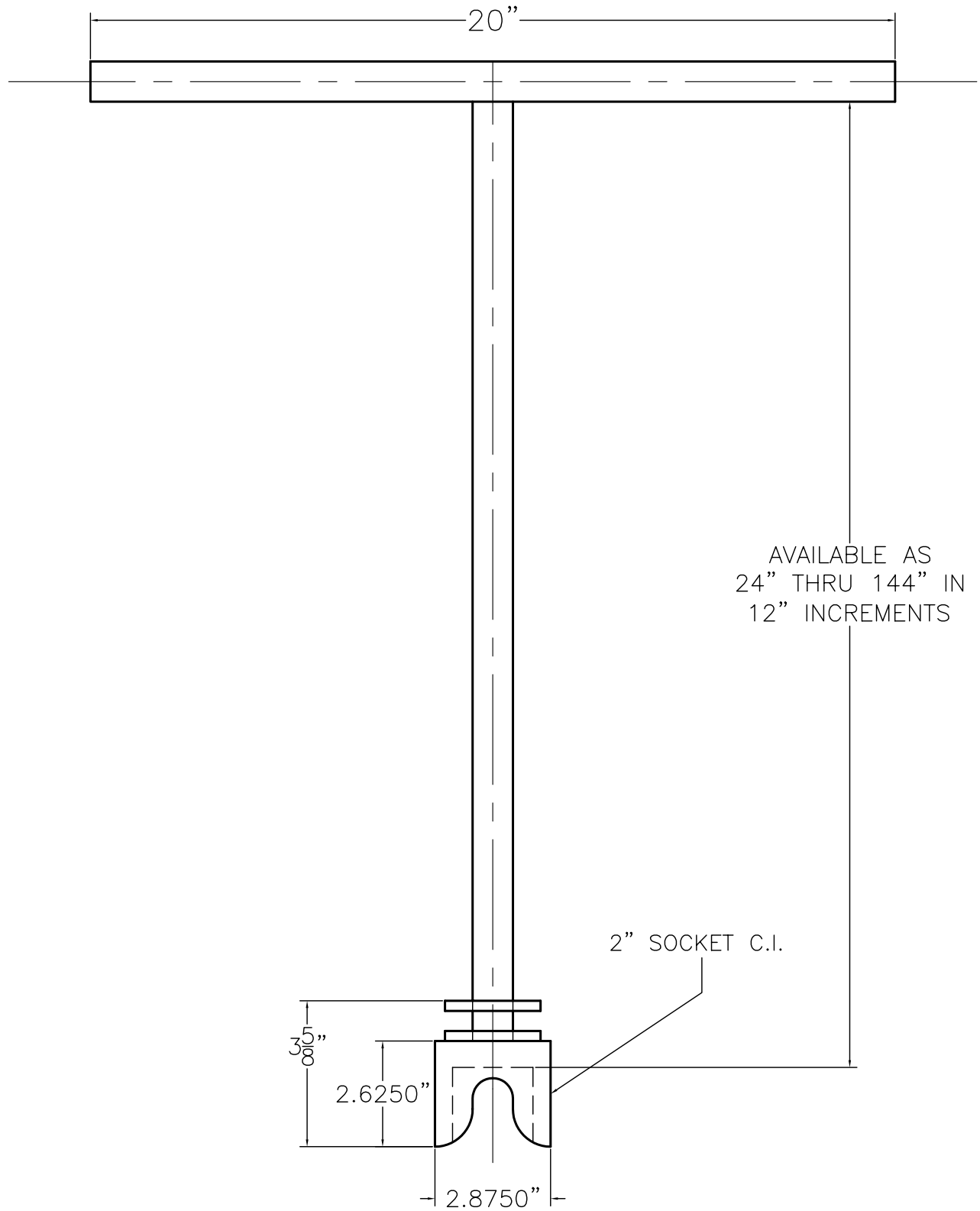
SPROCKET SIZE	1½	2	2½	3	3½	4	4½	5
A - Overall Height	8	10½	12½	15½	18½	21½	25¾	30
B - Inner Bolt Circle	3½	4½	5½	8½	12	12	16	19
C - Outer Bolt Circle	5	6⅝	9¼	12⅜	15½	18	22	25½
D - Hub Opening (dia.)	1	2⅞	2⅞	2⅞	3	3	3	3
E - Slot Size (width)	⅜	⅜	⅞	⅞	⅞	⅞	⅞	⅞
F - Rear Opening	1⅞	3⅞	3½	3½	4⅞	4⅞	4¾	4¾
G - Hub Depth (shoulder to rear)	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	1⅞	2
H - Rim Thickness	1⅞	1⅞	1¼	1¼	1¼	1½	1½	1⅝
J - Overall Depth	2⅜	2⅜	2⅝	2⅝	3⅞	3⅞	3⅞	3⅞

SPECIFICATIONS				
Size No.	Diameter of sprocket wheel in inches	Weight in lbs.	Diameter of valve wheels rim will fit	Chain weight per 100' in lbs.
1½	7½	5	6 to 7½	17½
2	9	8	7¾ to 9	17½
2½	12½	14	9¼ to 12½	30
3	15½	19	12¾ to 15½	30
3½	19	28	15¾ to 19	30
4	22	37	19¼ to 22	35
4½	26	47	22¼ to 26	35
5	30	58	26¼ to 30	35

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DWN: TRIJ
DATE: 7/1/05
DWG. NO.
ACCW-5680

CHAIN WHEEL
STYLE F-5680
GENERAL DIMENSIONS



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

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

T-HANDLE SOCKET WRENCH