

Serving the Water & Waste Water Industry Since 1878

IN-PLANT VALVES



M&H VALVE COMPANY

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

www.mh-valve.com



For Generations

AUTOMATION



M&H VALVE COMPANY



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



AUMA SA/GS Quarter-turn Electric Actuator

Application: Used to operate larger quarter-turn valves



AUMA SG Quarter-turn Electric Actuator

Application: Used to operate smaller quarter-turn valves

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 mA DC), 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	Electric Motor Actuators
Extension Stems	Cylinder Actuators
2" sq. Operating Nuts	Limit Switches
Handwheels	Stem Guides
Lever Wrench Head	Floor Boxes
Chainwheels	"T" Handles
Worm Gear Actuators	Chain levers
	Extended Bonnet

SIZE RANGE	3" – 24"	
	Water Working Pressure PSI	Hydrostatic Test PSI
3" – 12"	175	265
14" – 24"	150	225

M&H BUTTERFLY VALVES



AVAILABLE END CONNECTIONS & SIZE RANGE

Flanged End	3" – 54"
M.J.	4" – 48"
Flanged X MJ	6", 8", 12", 16"
Wafer	4" – 20"

ACCESSORIES

Floorstands	Solenoid Valves
Extension Stems	Positioners
Stem Guides	Speed Controls
Traveling Nut & Screw Actuator	Chainwheels
Worm Gear Actuators	2" sq. Operating Nuts
Hand Lever Actuators	Handwheels
Electric Motor Actuators	Cranks
Limit Switches	"T" Handles
Cylinder Actuators	Floor Boxes
	Extended Bonnet

SIZE RANGE	CLASS 150B		
	Water Working Pressure PSI	Bubble-Tight Test PSI	Hydrostatic Test PSI
3" – 54"	150	150	300

SIZE RANGE	CLASS 250B		
	Water Working Pressure PSI	Bubble-Tight Test PSI	Hydrostatic Test PSI
3" – 48"	250	250	500

Contact your local representative for sizes up to 120".

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"

For additional end connections, please contact your local representative.

ACCESSORIES

Floorstands	Stem Guides
Indicator Posts	Floor Boxes
Electric Actuators	Chainwheels
Manual Operators	2" Operating Nuts
Extension Stems	Handwheels
	"T" Handles

For additional accessories please contact your local representative.

RESILIENT WEDGE

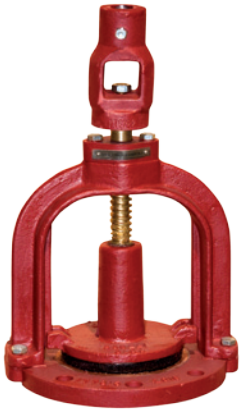
SIZE RANGE	Water Working Pressure PSI	Bubble-Tight Test PSI	Hydrostatic Shell Test PSI
2" – 12" AWWA	250	250	500
14" – 54" AWWA	250	250	500
2" – 16" ULFM	200	200	400

DOUBLE DISC GATE VALVE

SIZE RANGE	Water Working Pressure PSI	Hydrostatic Test PSI
2" – 12"	200	400
14" – 48"	150	300

Also available: High pressure double disc gate valve.

M&H MUD 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

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

M&H SWING CHECK VALVES



AVAILABLE END CONNECTIONS & SIZE RANGE

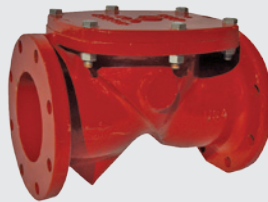
Flanged	2" – 30" (Plain)
Flanged	2" – 30" Outside Weight & Lever
Flanged	2" – 30" Outside Spring & Lever

ACCESSORIES

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

SIZE RANGE	Water Working Pressure PSI	Hydrostatic Shell Pressure PSI
2" – 12"	200	400
14" – 30"	150	300

M&H KENFLEX RESILIENT SEATED CHECK VALVES



SIZE RANGE	Water Working Pressure PSI	Hydrostatic Shell Pressure PSI
4" – 12"	250	500

M&H CUSHIONED SWING CHECK VALVE



AVAILABLE END CONNECTIONS & SIZE RANGE

Flanged 4" – 30" Outside Weight and Lever

ACCESSORIES

Outside Weight and Lever
Iron Rubber Faced Gates

SIZE RANGE	Water Working Pressure PSI	Hydrostatic Shell Pressure PSI
3" – 12"	200	400
14" – 30"	150	300

M&H INCREASING SWING CHECK VALVES



AVAILABLE END CONNECTIONS

Flanged–(Plain)
Flanged–Outside Spring & Lever
Flanged–Outside Weight & Lever

ACCESSORIES

Outside Weight and Leve Limit Switches
Outside Spring and Lever Iron Rubber Faced Gates

SIZE RANGE	SIZE RANGE
3" X 4"	8" X 10"
4" X 6"	8" X 12"
4" X 8"	10" X 12"
6" X 8"	6" X 10"

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:

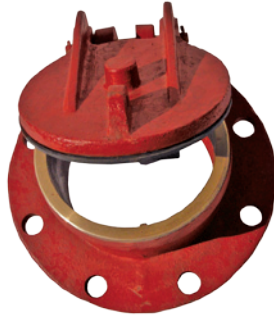
Flanged End Frame is faced and drilled to ANSI 125 pound template.

ACCESSORIES

Lifting Handle and Hooks

SIZE RANGE	Working Pressure
4" – 30"	Recommended for use in lines of low seating and unseating pressures only

M&H WALL TYPE PRESSURE RELIEF VALVE



AVAILABLE END CONNECTIONS & SIZE RANGE

Flange 4" & 6"

ACCESSORIES

4" & 6" F-1496T Wall Pipe with Grate

M&H FLOOR TYPE PRESSURE RELIEF VALVES



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"
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M&H FLAP VALVES



F3012-T

AVAILABLE END CONNECTIONS & SIZE RANGE

Flanged End 4" – 30"

SIZE RANGE	Working Pressure
4" – 30"	Valves unseat and swing open under unseating pressure to release the outfall fluid and close when pressure is relieved.

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

SIZE	MIN. LENGTH	MAX. LENGTH
#3	2 1/2"	17"
#5	15"	24"
#6	24"	35"



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



M&H VALVE COMPANY

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For Generations

SIZE RANGE
WORKING PRESSURE
SUGGESTED SPECIFICATIONS

M&H VALVE

**PRESSURE RELIEF VALVES---“FLOOR TYPE”
STYLE F-1493**

Body Length- Inches	4” x 8”	6” x 8”
Weight Complete - Pounds	30	42

WORKING PRESSURE
The valve starts to open at a head of approximately 9” of water.

SUGGESTED SPECIFICATIONS:

Floor type hydrostatic pressure relief valve shall be designed for installing in the bottom of concrete tanks.

The assembly shall consist of three parts: cover, body and grate. All three parts shall be of cast iron conforming to ASTM specifications A-126 Class B. They shall be designed so that neither the cover nor grate can become separated from the body of the valve, due to ground water pressure around the tank. However, when necessary, both may be easily removed by turning them to right or left to free them from locking lugs cast integrally on the inside of the body.

The seats shall be of BUNA-N rubber, bonded to the cover, mating with a machined bronze seat in the body.

Floor type pressure relief valves shall be as furnished by M&H Valve (Style F-1493) or approved equal.

INSTALLATION

OPERATION

MAINTENANCE

M&H VALVE

PRESSURE RELIEF VALVES---“FLOOR TYPE”

STYLE F-1493

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 cover should be checked to insure freedom of motion and proper operation.
- D. The valve should be installed over a bed of crushed stone.
- E. The valve must be installed in the vertical position to operate properly.

II. Operations

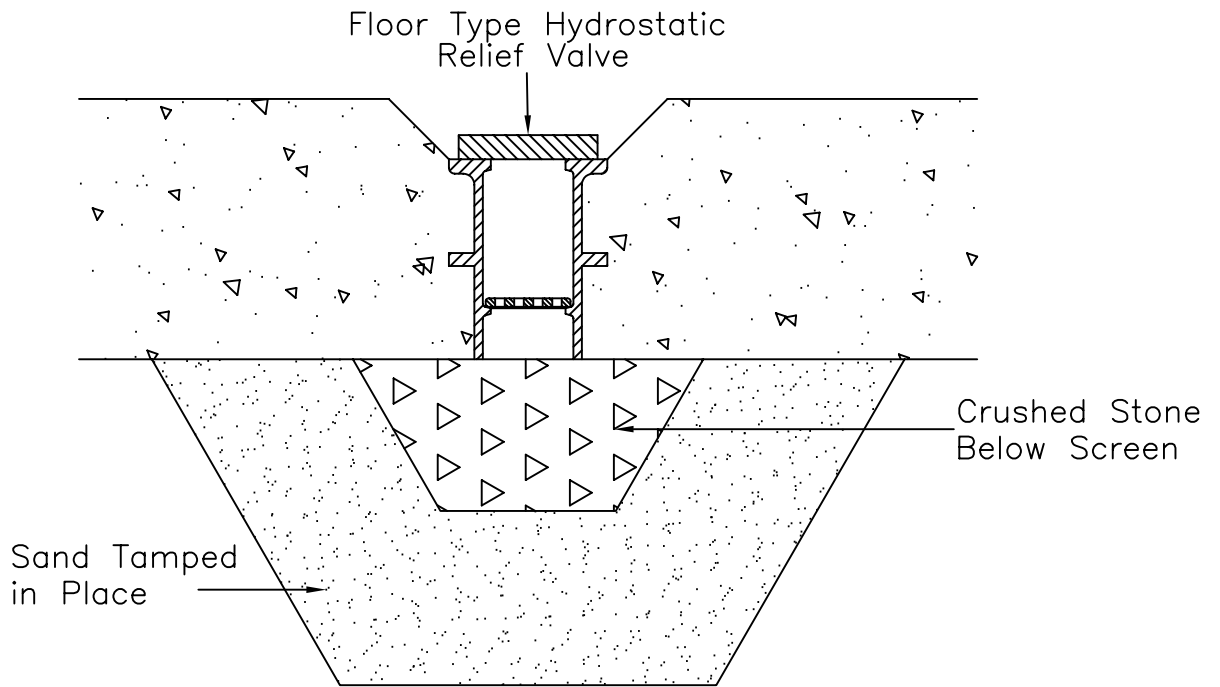
Once installed, the valve will operate as pressure conditions dictate. When outside water pressure builds up. Exceeding the inside pressure, the valve will open and allow water to enter the tank to equalize pressure. When the pressure is relieved, the valve will close to prevent seepage of liquid out into the ground.

III. Maintenance

Frequency of inspection should be at least on an annual basis, or whenever valve is accessible. Remove the cover by turning it right or left and lifting out. Examine and clean seating surfaces. Remove any debris from inside of body. Remove and clean grate if necessary. Reassemble and insure proper operation and retention of cover.

Note:

There are no recommended spare parts
There are no lubrication requirements.



- NOTE 1: A rubber (Buna-N) To metal seal is accomplished when the cover is in the closed position, metal face is a machined bronze seat.
- NOTE 2: Ground water pressure cannot separate cover or grate from body.
- NOTE 3: Cover and grate can be removed by turning to right or left and lifting out.
- NOTE 4: Valve starts to open at a head of approximately 9" of water
- NOTE 5: In order for the F-1493 "Floor Type Valve" to operate correctly, it must be installed in a vertical position.
- NOTE 6: The 8" long cast iron body is designed to be extended to any length by using C900 PVC pipe and field cutting to desired length.

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

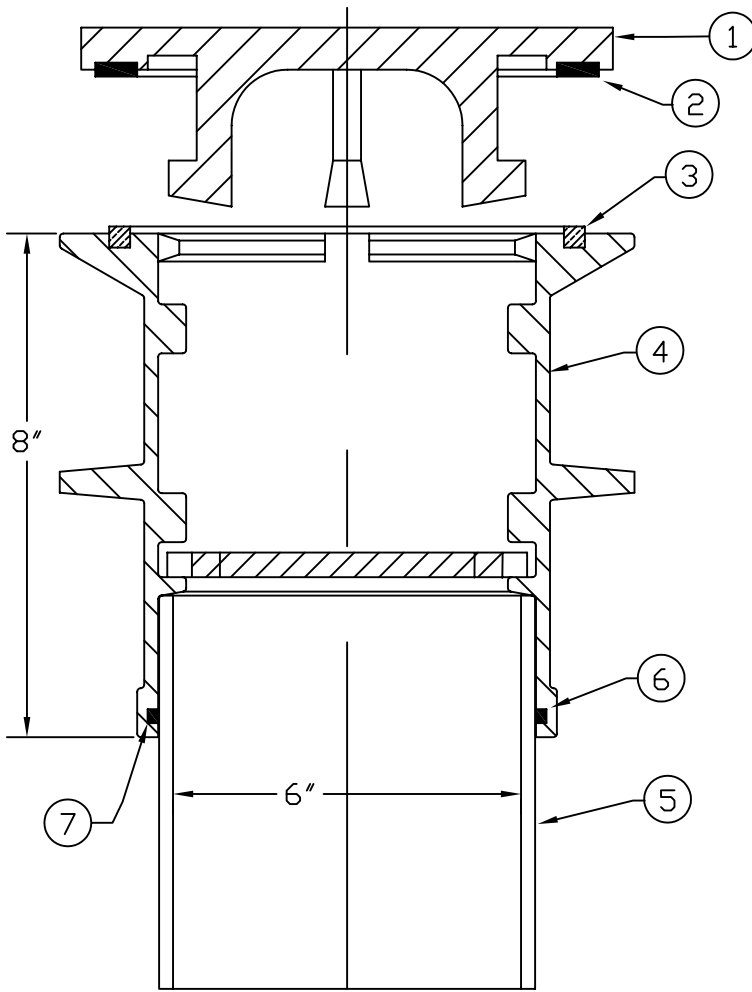
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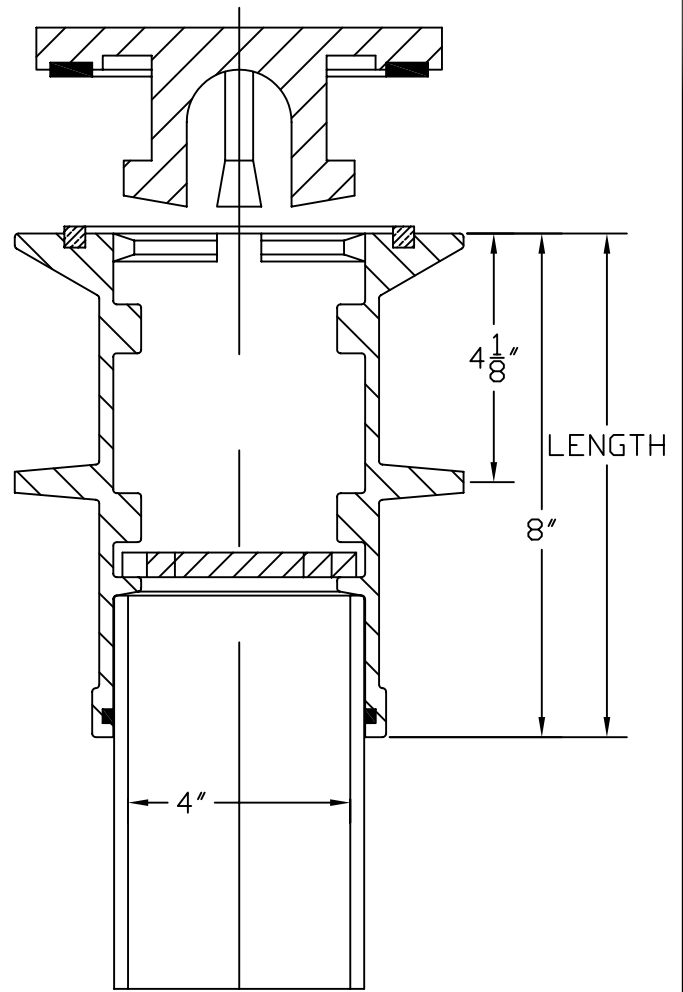
DWG. NO.
PRV-F

4" PRESSURE RELIEF VALVES
(FLOOR TYPE)

INSTALLATION DETAIL / NOTES
STYLE F-1493



6" SIZE--Weight 42LBS.



4" SIZE--Weight 30LBS.

ITEM	DESCRIPTION	MATERIAL	
1	COVER	CAST IRON	A126B
2	SEAL	BUNA-N	50 DUR
3	SEAT	BRONZE	SAE660
4	BODY	CAST IRON	A126B
5	EXTENSION	P.V.C.	C900
6	O RING	BUNA-N	60 DUR
7	GRATE	CAST IRON	A126B

NOTE:

#5. P.V.C PIPE IS NOT SUPPLIED ON 8" LENGTH

#3. BRONZE SEAT IS PRESSED & SEALED INTO GROOVE

#7. GRATE SHOWN 45° OUT OF POSITION, SLOTS LINE UP W/RIBS TO ASSEMBLE ONLY

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

DWN: TRIJ

DATE: 7/1/05

DWG. NO.
PRV-F

4" & 6" PRESSURE RELIEF VALVES
(FLOOR TYPE)

MATERIAL LIST / DIMENSIONS / WEIGHTS
STYLE F-1493

SIZE RANGE / WEIGHT

PRESSURE RATING

ACCESSORIES / OPTIONS

SUGGESTED SPECIFICATIONS

M&H VALVE—PRESSURE RELIEF VALVE---WALL TYPE STYLE F-1494-T

<u>Available End Connections</u>	<u>Size Range</u>	<u>Aprox. Weight</u>	<u>Size Style No.</u>
Flanged End	4" x 12"	35 lbs.	F-1494-T
Flanged End	6" x 12"	47 lbs.	F-1494-T

Working Pressure

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

Accessories / Options:

4" & 6" F-1496-T Wall Pipe with Grate

SUGGESTED SPECIFICATIONS:

The wall type hydrostatic pressure relief valve shall be suitable for sidewall installation in tanks and digesters.

The valve shall be of the 1.0degree seat design with offset single pivoted hinge.

The flap gate and body shall be of cast iron conforming to ASTM specifications A-126 Class B.

The body seat ring and hinge pin shall be furnished of bronze.

The gate shall have a neoprene rubber seat cemented and mechanically retained in place by a retainer plate. The body seat ring shall be threaded and screwed into place and the face machined to a smooth finish.

The valve shall have a 4" or 6" flanged end faced and drilled to ANSI 125 pound template for connection to a 4" or 6" wall pipe.

Wall type pressure relief valves shall be furnished by M&H or approved equal.

NOTE:

The 12" long cast iron wall thimble is designed to be extended to any length by using C900 PVC pipe and field cut to desired length.

July 2005 / M&H Pressure Relief Valves—Wall Type

INSTALLATION

OPERATION

MAINTENANCE

M&H VALVE

PRESSURE RELIEF VALVE---WALL TYPE

STYLE F-1494-T

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 mechanism for lifting.
- E. Prepare mounting flange of wall thimble that has been cast into wall tank, as required. Install the valve as per appropriate instructions for the specified joint. Bolts holes should straddle the vertical centerline.

II. Operations

Once installed, the valve will operate as pressure conditions dictate. When outside water pressure builds up, exceeding the inside pressure, the valve will open and allow water to enter the tank to equalize pressure. When the pressure is relieved, the valve will close to prevent seepage of liquid out into the ground.

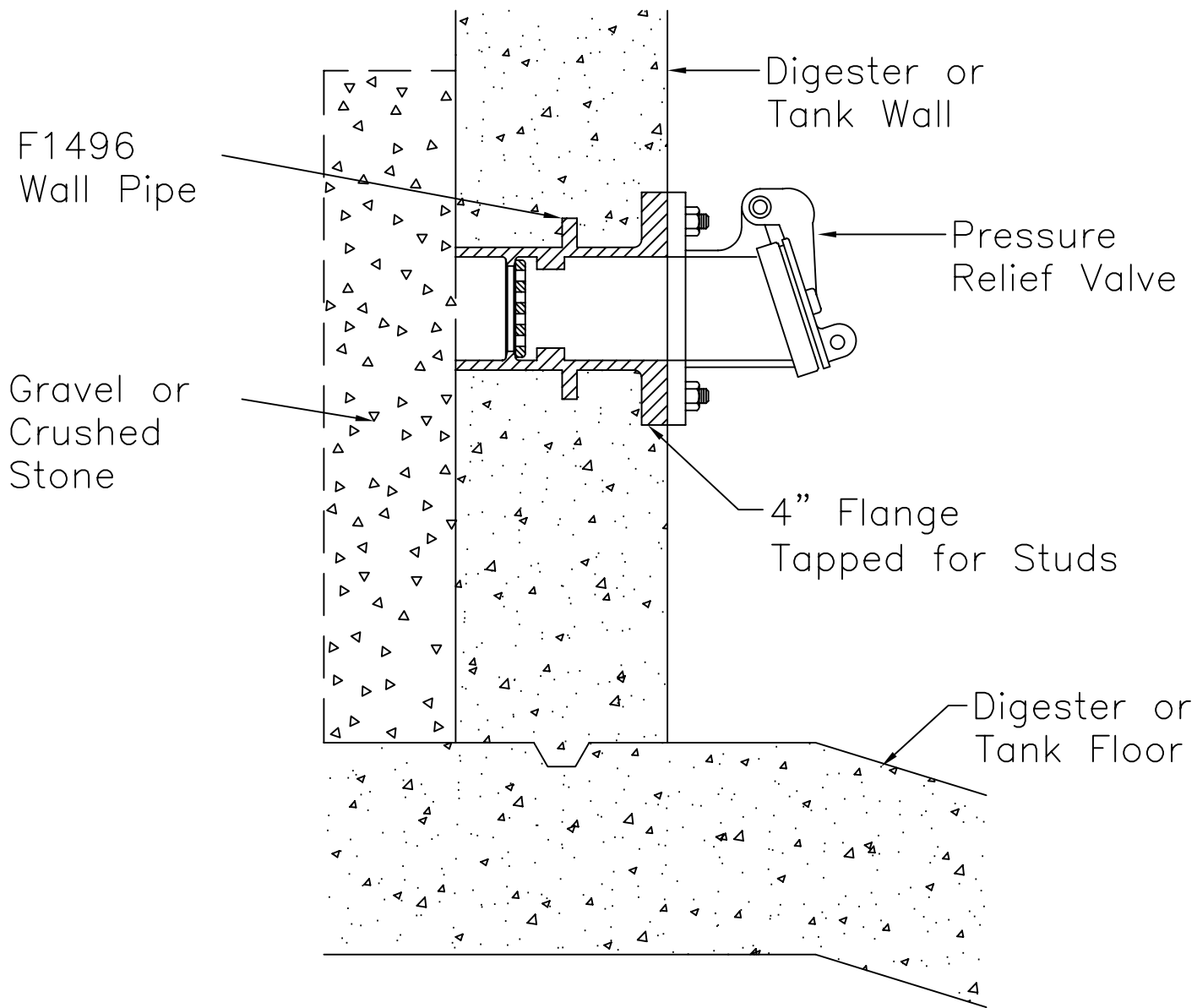
III. Maintenance

Frequency of inspection should be at least on an annual basis, or whenever valve is accessible. Joint should be visually inspected for leakage. Raise and lower the flap so pin can be checked for free operation. Exercise and lubricate the hinge/shaft pin (* with suitable lubricant) at least annually to assure free operation. Check rubber flap ring and seat ring for freedom from damage. Remove any debris found on inside of valve.

Notes:

There are no recommended spare parts

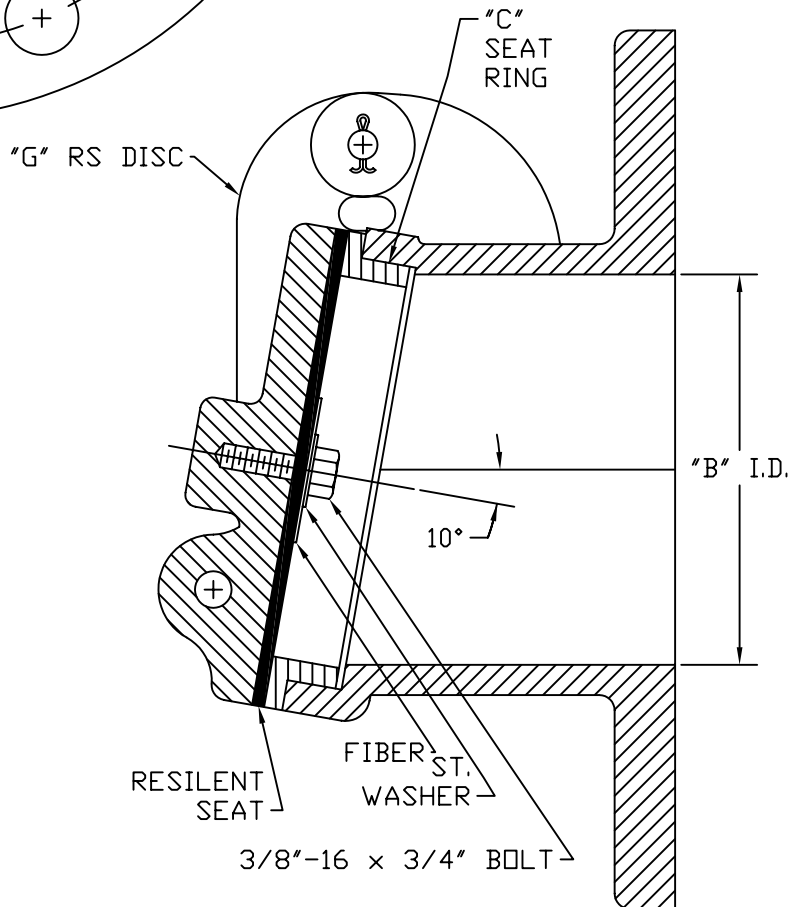
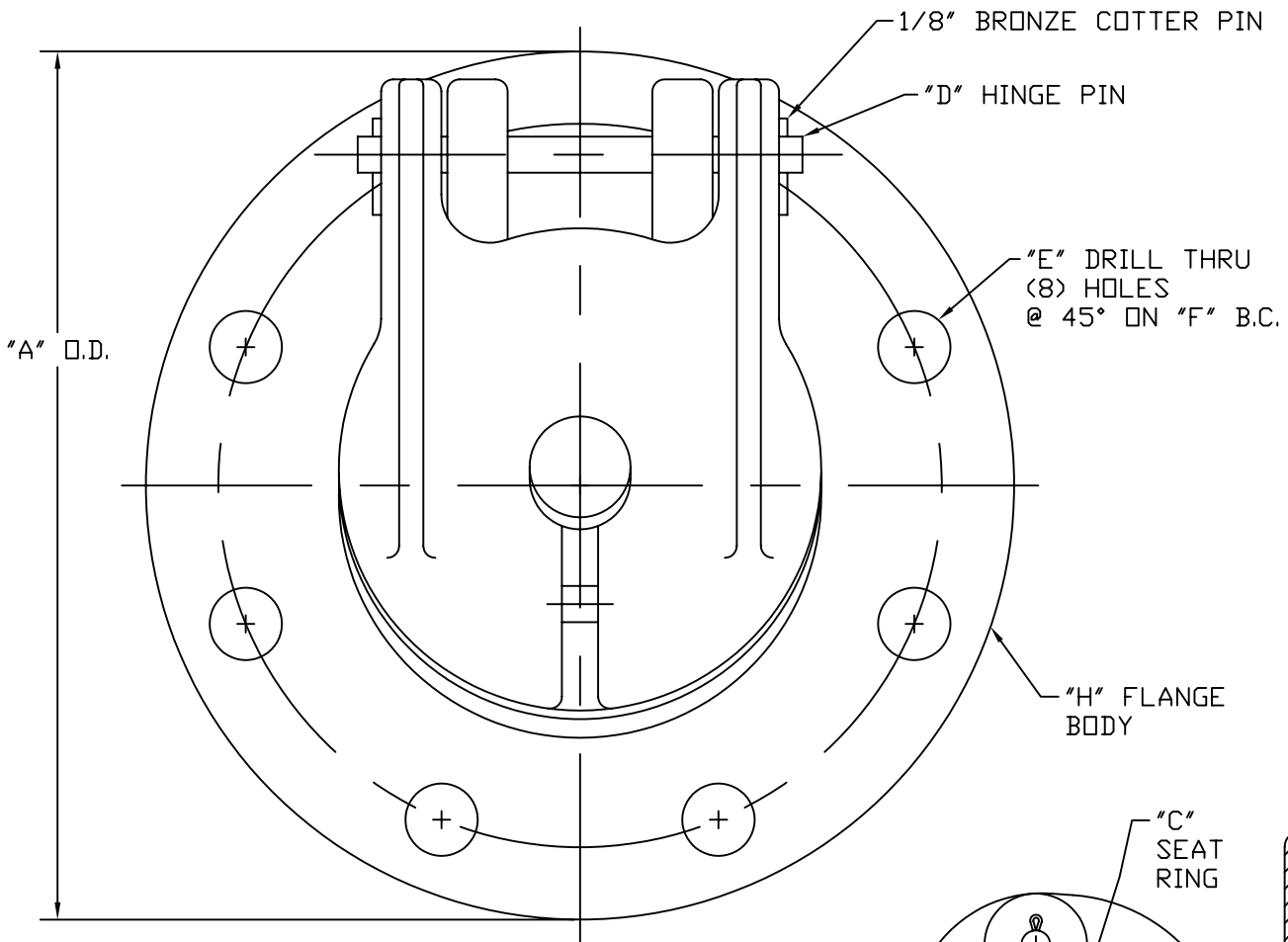
Recommend food grade grease similar to Chevron FM Grease EP NLGI 2.



M&H VALVE COMPANY
ANNISTON, ALABAMA
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DWN: TRIJ
DATE: 7/1/05
DWG. NO.
PRV-W3

4" & 6" PRESSURE RELIEF VALVE
(WALL TYPE)
INSTALLATION DETAIL
STYLE F-1494-T

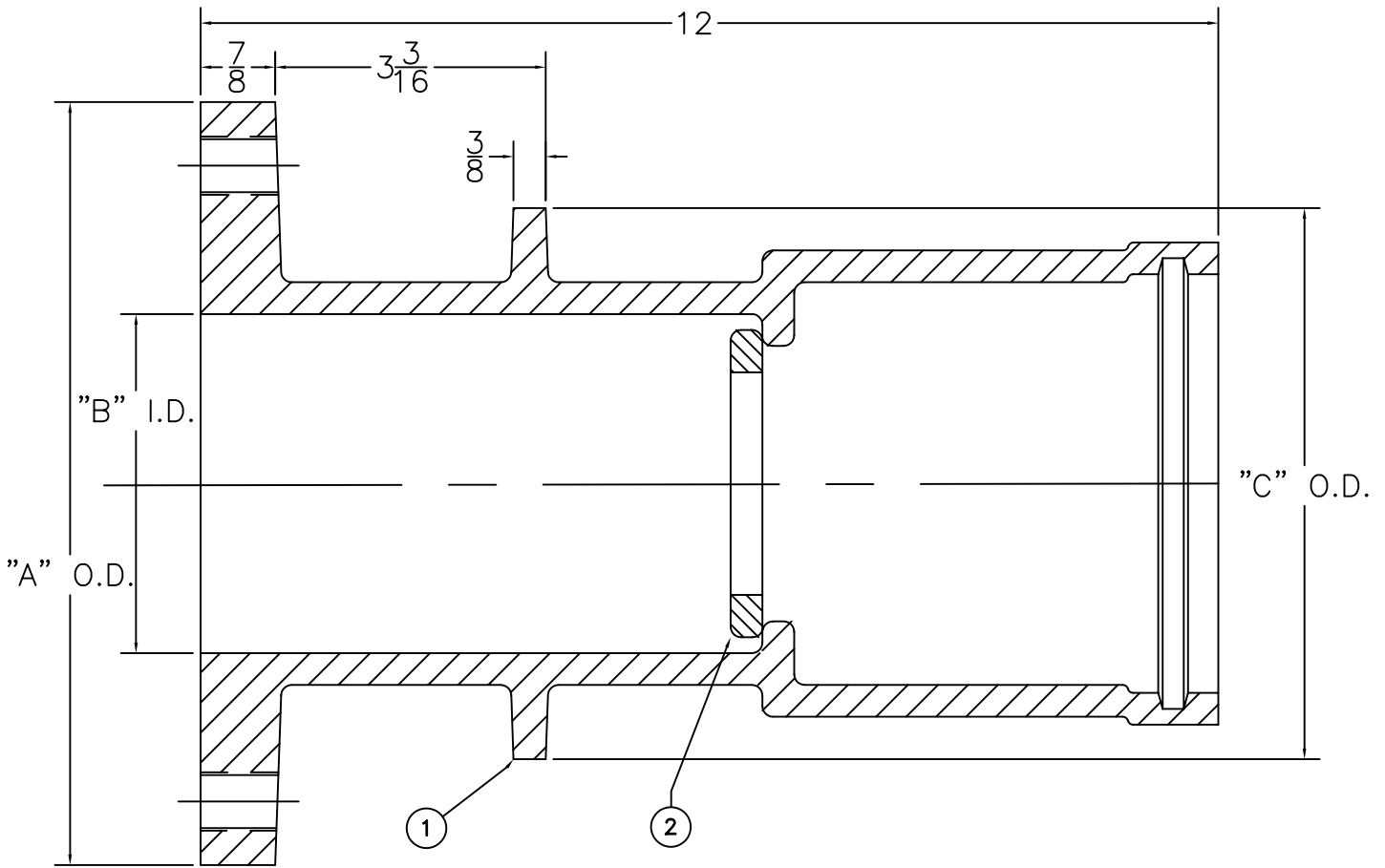


DIMENSIONS & PART NO.'s		
SIZE	4"	6"
A	9	11
B	4	6
C	155575	155577
D	177400	177426
E	3/4	7/8
F	7 1/2	9 1/2
G	177401	177412
H	177402	177409

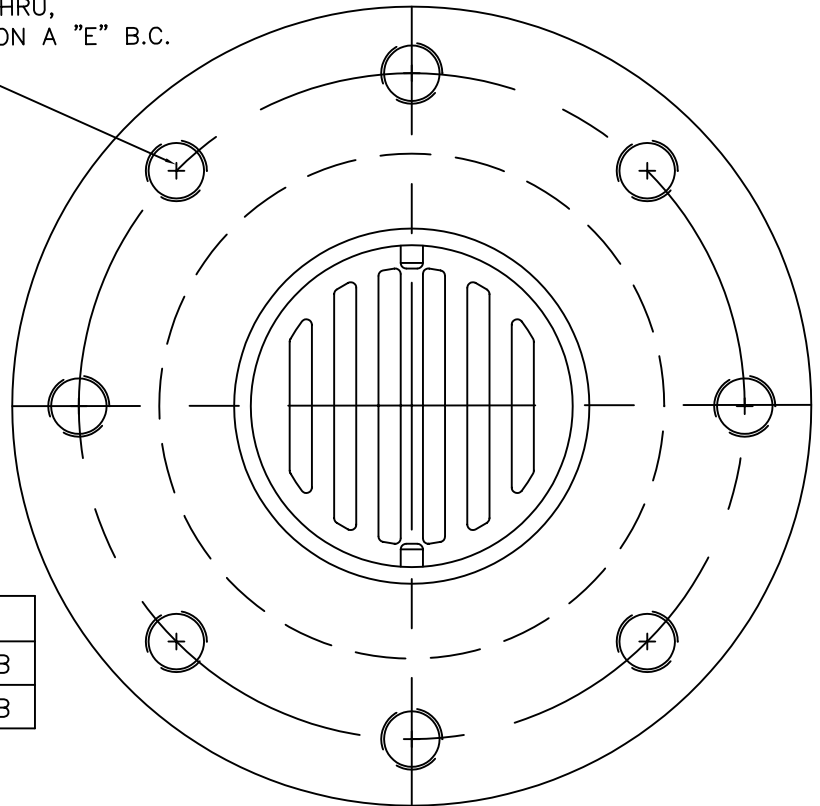
M&H VALVE COMPANY
ANNISTON, ALABAMA
A DIVISION OF MCWANE INC.

DWN: TRIJ
DATE: 7/1/05
DWG. NO.
PRV-W1

4" & 6" PRESSURE RELIEF VALVE
(WALL TYPE)
ASSEMBLY / MATERIAL LIST / DIMENSIONS
STYLE F-1494-T



"D" TAP THRU,
LOCATED ON A "E" B.C.
(8) REQ'D



DIMENSIONS		
SIZE	4"	6"
A	9.00	11.00
B	4.00	6.00
C	6.50	8.50
D	$\frac{5}{8}$ "-11UNC	$\frac{3}{4}$ "-10UNC
E	7.50	9.50

4" Weight 35 lbs.

6" Weight 47 lbs.

ITEM	DESCRIPTION	REQ'D	MATERIAL
1	WALL THIMBLE	1	CAST IRON A126B
2	GRATING	1	CAST IRON A126B

NOTE: CAN BE EXTENDED TO ANY LENGTH BY
USING C900 PVC

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

DWN: TRIJ
DATE: 7/1/05
DWG. NO.
PRV-W2

4" PRESSURE RELIEF VALVE--(WALL TYPE)
WALL THIMBLELL
ASSEMBLY / MATERIAL LIST / DIMENSIONS
STYLE F-1494-T