

## MUNICIPAL STAINLESS AND ALUMINUM WATER CONTROL GATES AND VALVES



### MECHANICAL ASSOCIATES MUNICIPAL PRODUCTS

- All Stainless Steel or Aluminum
  - Environmentally friendly
- Non environmentally degrading
  - No toxic paints or coatings
  - American Made



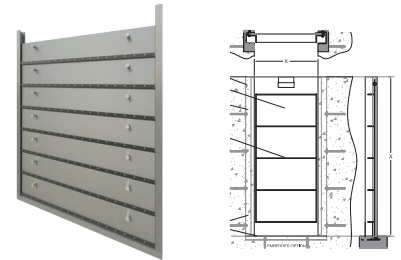
## FC-SS SERIES STAINLESS STEEL SLIDE & WEIR GATES:

- Sewage Treatment Plants
- Operates Under Gritty Conditions
- On & Off Seating Conditions
- Downward Opening, Used in Overflow Conditions



## FC-SS SERIES HAND PULL STOP GATES, BULK-HEADS, & STOP LOGS:

- Sewage Treatment Plants
- Operates Under Gritty Conditions
- On & Off Seating Conditions
- Downward Opening, Used in Overflow Conditions



## UHO-10 SERIES ALUMINUM SLIDE & WEIR GATES:

- Sewage Treatment Plants
- Operates Under Gritty Conditions
- On & Off Seating Conditions
- Downward Opening, Used in Overflow Conditions



## UHO-10 SERIES HAND PULL STOP GATES, BULK-HEADS, & STOP LOGS:

- Sewage Treatment Plants
- Operates Under Gritty Conditions
- On & Off Seating Conditions
- Downward Opening, Used in Overflow Conditions



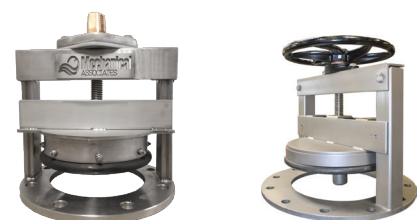
## UHO-30 FLAP GATE (ROUND OR SQUARE):

- All Stainless Steel or Aluminum Construction
- All Stainless Steel or Aluminum Construction
- Heavy Duty for Pump Discharge
- Single or Dual Pivot Point Designs
- Available in Heavy Duty (Up to 50ft Head)



## UHO-MV-SS STAINLESS STEEL MUD VALVE:

- Sewage Treatment Plants
- Operates Under Gritty Conditions
- Rising and Non-Rising Stem Options



**STAINLESS STEEL:**

AISI 304 & 304L : ASTM A-276

AISI 316 & 316L: ASTM A 276

ASTM F-593 & 594 GROUP 1 & 2 (GRADE 8 & B8)

\*\*OR PER SPECIFICATION

**ALUMINUM:**

6061 T-6: FEDERAL SPECIFICATION QQA200/16/COLD FINISHED ASTM B308

5052: H-32

\*\*OR PER SPECIFICATION

**COMMERCIAL BRONZE:**

ASTM B584 UNS-C8650

\*\*OR PER SPECIFICATION

**CAST IRON:**

CLASS 30 GREY IRON

\*\*OR PER SPECIFICATION

**GALVANIZED STEEL:**

ELECTRO GALVANIZED ASTM A-879

G-90LFQ

\*\*OR PER SPECIFICATION

## MATERIAL SPECIFICATIONS - SEALS & GASKETS

### **UHMW POLYETHYLENE SELF ADJUSTING SEALS:**

UHMWPE MATERIAL, UV STABILIZED, WITH NEOPRENE RUBBER ROPE FOR SELF ADJUSTING FEATURE.

RUBBER ROPE: ASTM D-2000 NEOPRENE 50 SHORE

RUBBER ROPE: ASTM D-2000 EPDM 50 SHORE

\*\*OR PER SPECIFICATION

### **UHMW POLYETHYLENE BEARINGS, GUIDES, & SEALS:**

VIRGIN UHMWPE MATERIAL, UV STABILIZED

\*\*OR PER SPECIFICATION

### **FLUSH BOTTOM SEAL:**

ASTM D-2000 NEOPRENE 70 SHORE

ASTM D-2000 EPDM 70 SHORE

(RECATANGULAR SEAL IN FLUSH BOTTOM BOX)

\*\*OR PER SPECIFICATION

### **J-BULB SEAL:**

ASTM D-2000 NEOPRENE 70 SHORE

ASTM D-2000 EPDM 70 SHORE

OR AS SPECIFIED

\*\*OR PER SPECIFICATION

### **GROUTLESS J-BULB GASKET:**

ASTM D-2000 NEOPRENE 70 SHORE

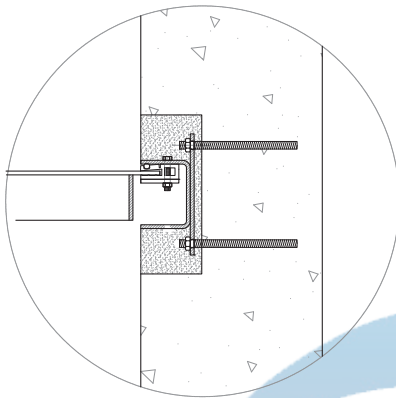
ASTM D-2000 EPDM 70 SHORE

\*\*OR PER SPECIFICATION

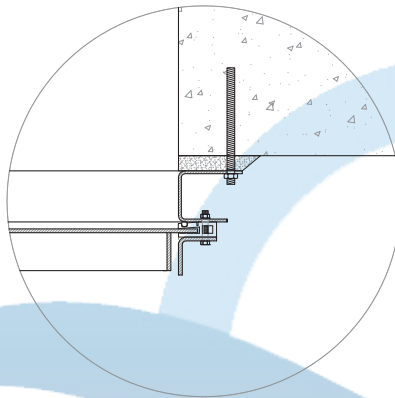
# MOUNTING OPTIONS

## TYPICAL SLIDE GATE MOUNTING CONFIGURATIONS:

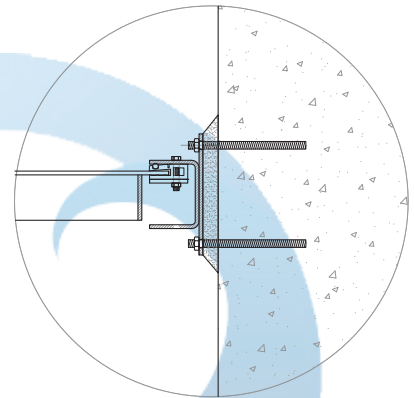
Mechanical Associates mounting options vary per specification.



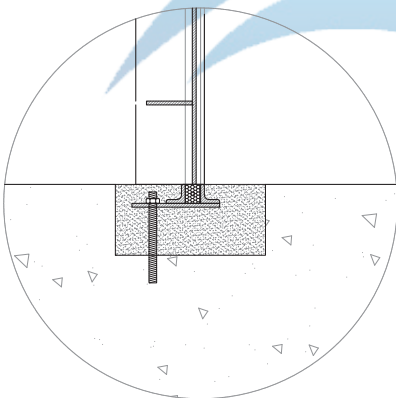
SIDE  
MOUNTING



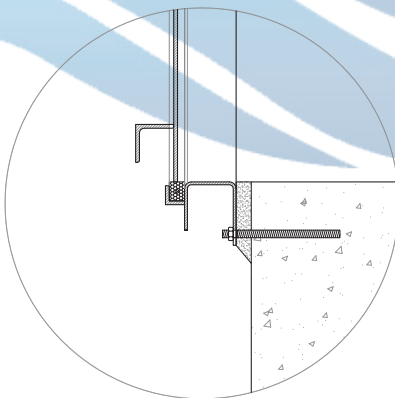
SIDE  
MOUNTING



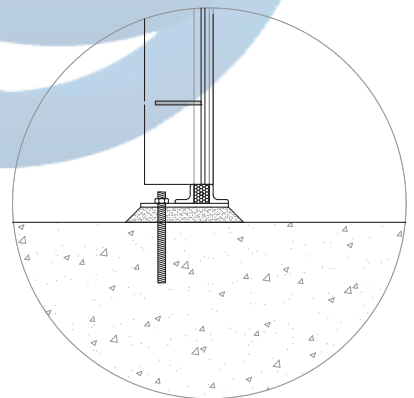
SIDE  
MOUNTING



BOTTOM  
MOUNTING  
EMBEDDED



BOTTOM  
MOUNTING  
FLANGE BACK

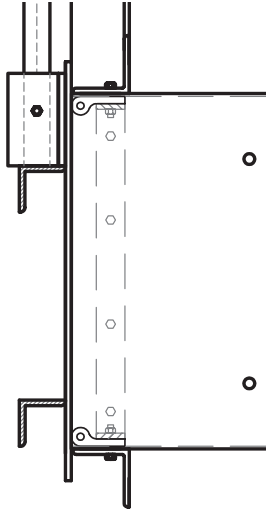


BOTTOM  
MOUNTING  
IN-CHANNEL



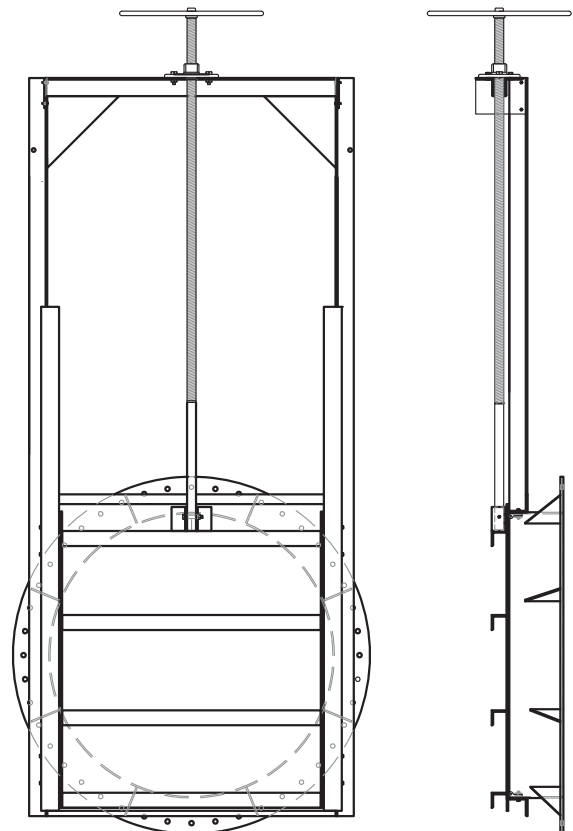
## SPIGOT BACK:

Spigot Back Gates are made to attach to the specific pipe type for your application. Typical pipe types include, but not limited to Steel, Plastic, and Concrete. Also available are the Gasketed Spigot and Victaulic Spigot.



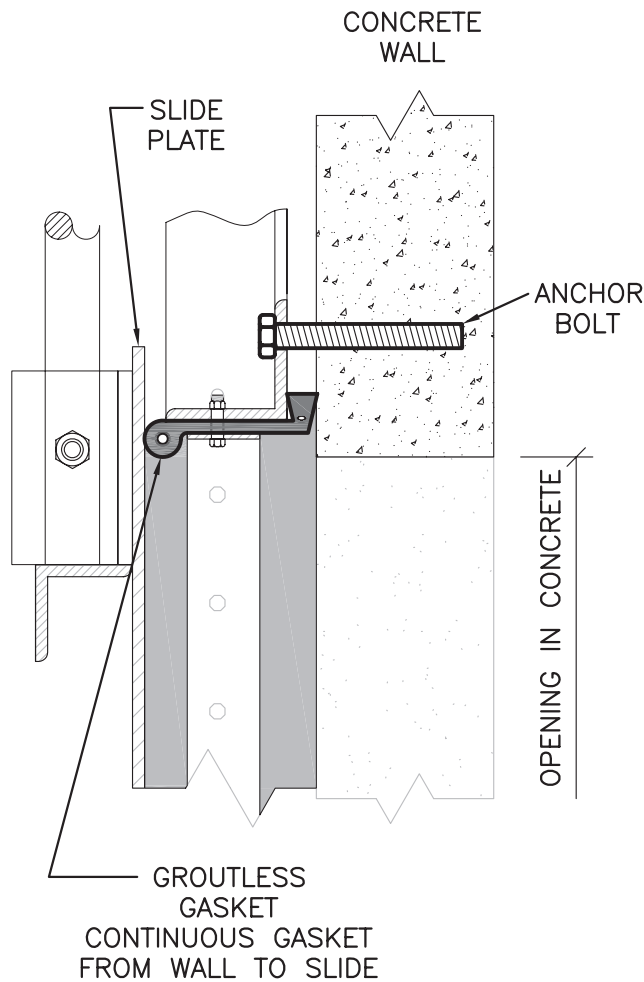
## FLANGE BACK:

Flange Back Gates are essentially a spigot back design made with a flange welded at the connection points. This custom feature is designed to connect to the specific pipe type for your application. Typical pipe types include, but not limited to Steel, Plastic, and Concrete.



## GROUTLESS GASKET:

PATENT PENDING



Our Groutless Gasket was developed in conjunction with our Stainless Steel Canal Gate. This system was designed to eliminate the process of using grout for gate installation, which can be costly and time consuming.

The Groutless Gasket can be used in any shape wall opening, traditional or custom. Installation is simple and straightforward. Install anchors into the wall, mount the gate, and tighten anchor nuts for a snug fit. On walls that are uneven or pitted due to age, we recommend a bead of urethane sealant be applied to the gasket before installing it against the wall. The sealant will fill voids in the wall, allowing for a tight seal.

This gasket can also be used with Flap Gates. The gasket is installed between the gate and flange when installed on pipe.



**TYPE 1 - LIFT:**

Typically used on the FC-SS Slide Gate, UHO-10 Slide Gate, & US Canal Gate

- Stem Size: 1-1/8"
- Handwheel Size: 14"
- Lift Nut: Brass
- Collar: Grey Iron

**TYPE 2 - LIFT:**

Typically used on the FC-SS Slide Gate, UHO-10 Slide Gate, & US Canal Gate

- Stem Size: 1-1/8" - 1-1/2"
- Handwheel Size: 24"
- Lift Nut: Brass
- Collar: Grey Iron

**VERTICAL INPUT LIFT:**

Handwheel Operated Geared Lift

Used where the gate is to be operated from above headrail vertically.

Ratios provided per application

**90° LIFT:**

Handwheel Operated Geared Lift

Used where lift is 36" above top of wall. Handwheel is then at 90° from vertical for ease of operation

Ratios provided per application

**BEARING LIFT:**

Typically used on the FC-SS Slide Gate, UHO-10 Slide Gate, & US- Canal Gate

- Stem Size: 1-1/8" - 1-1/2"
- Handwheel Size: 14", 24"
- Lift Nut: Contains Needle Bearing or Poly Bearing under and/or above the Lift Nut for ease of operation
- Collar: Grey Iron

**AIR OPERATION:**

Air Cylinder Provided for gate activation. Cylinder Provided as per gate application.

**ELECTRICAL OPERATION:**

Popular actuation for remote operation

Has emergency Handwheel for power out actuation

Provided per customer specification

**HYDRAULIC OPERATION:**

Hydraulic actuators are available with hydraulic power supply. Cylinder mounts to headrail and actuates gate. Cylinder Provided as per gate application.



## ANCHOR BOLTS

ALL ANCHOR BOLTS ARE FULL THD TO AID I EPOXY GRIP.

SIZED PER JOB SPEC.

MATERIAL:

304 SS

316 SS

ASTM F-593 & 594 GROUP 1 & 2  
(GRADE 8 & B8)

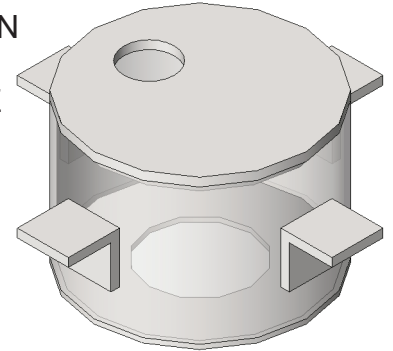
## FLOOR BOX

UTILIZED WHERE GATE ACTUATION IS ACHIEVED THROUGH HOLE IN TOP OF WALL OR FLOOR.

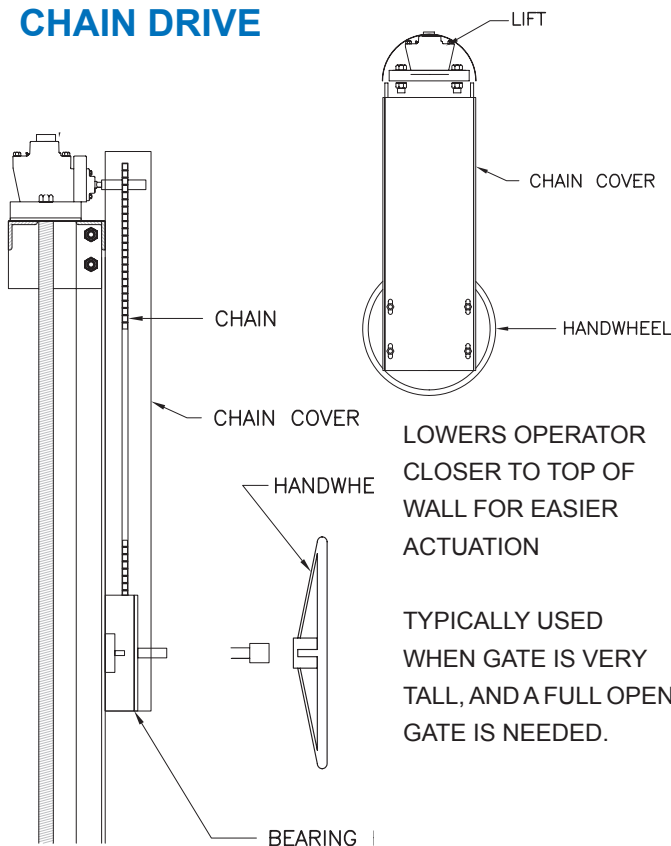
MATERIAL:

304 SS

316 SS

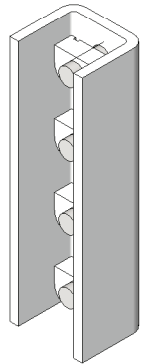


## CHAIN DRIVE



## FRAME EXTENSION

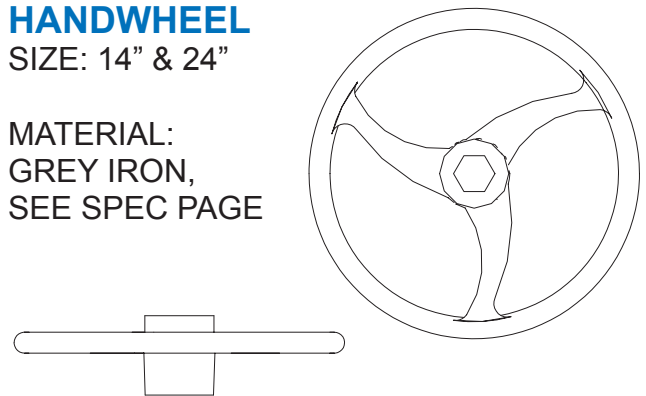
UTILIZED ON MODEL #UHO-11 TO EXTEND FRAME IN FIELD. THIS IS ACCOMPLISHED WITHOUT WELD OPERATION



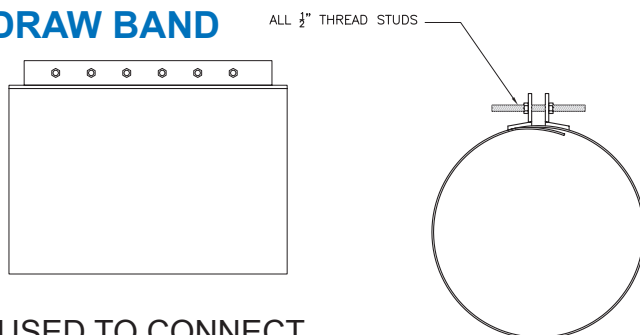
## HANDWHEEL

SIZE: 14" & 24"

MATERIAL:  
GREY IRON,  
SEE SPEC PAGE



## DRAW BAND



USED TO CONNECT SPIGOT BACK GATES TO THE END OF PIPE TO SPECS.

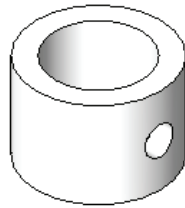
## HANDWHEEL EXTENSION

TYPICALLY BUILT FROM PIPE, THIS ALLOWS FOR OPERATION OF RISING STEM & NON RISING STEM GATE WITHOUT FRAME EXTENSION.

# COMPONENTS - GATE PARTS

## LIMIT NUT

LIMITS TRAVEL OR SLIDE.  
TYPICALLY USED TO STOP  
OVERCLOSURE OF GATE.



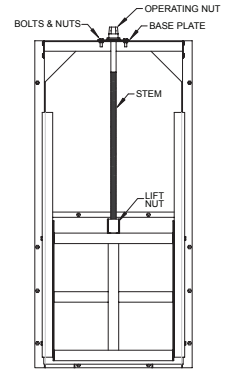
## STEM

ALL STEMS ARE ROLLED  
THREADS WHICH LIMITS  
WEAR ON LIFT NUT.

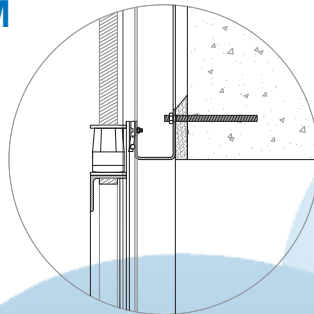
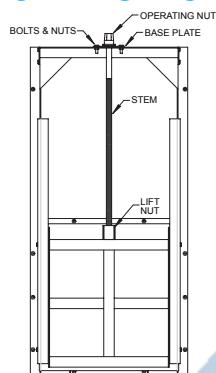
MATERIAL:

304 SS

316 SS



## NON-RISING STEM



STEM DOES NOT RISE  
DURING ACTUATION.

## STEM COVER

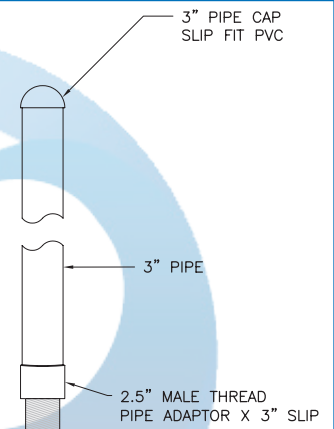
MATERIAL:

CLEAR PVC

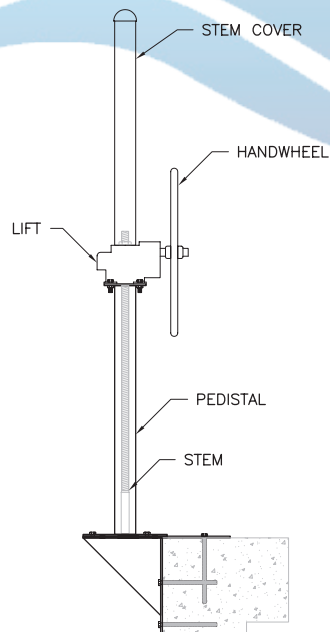
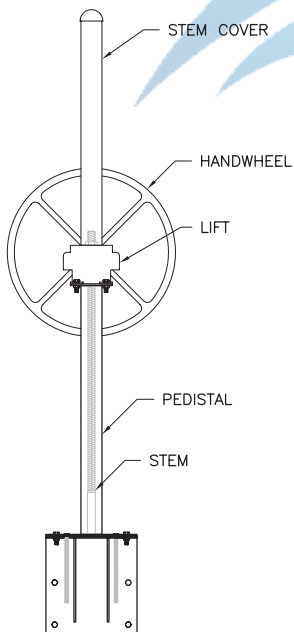
BUTERATEE

CARBON STEEL

STAINLESS STEEL



## PEDISTAL



RAISES OPERATOR TO ERGONOMIC HEIGHT  
FOR GATE ACCTUATION.

MATERIAL: CARBON STEEL, ALUMINUM, & SS

## STEM GUIDE



TYPICALLY BUILT PER  
JOB SPECIFICATIONS  
UHMW BUSHED

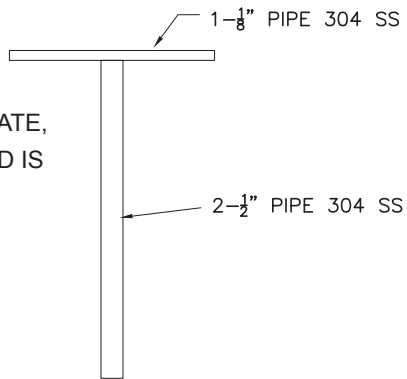
MATERIAL: 304, 316 SS



# COMPONENTS - GATE PARTS

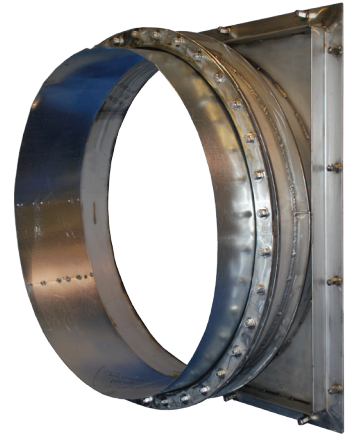
## TEE HANDLE

TYPICAL FOR USE ON  
NON RISING STEME GATE,  
OR WHERE GATE HEAD IS  
BELOW TOP OF WALL.  
CAN BE BUILT TO  
SPECIFICATION



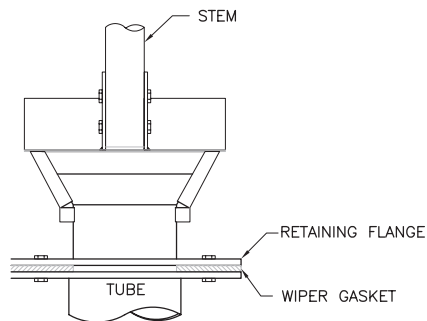
## THIMBLE

THIMBLES ARE  
TYPICALLY USED FOR  
WALL PENETRATIONS  
AND VARY WITH JOB  
SPECIFICATIONS  
MATERIAL:  
304 SS  
316 SS



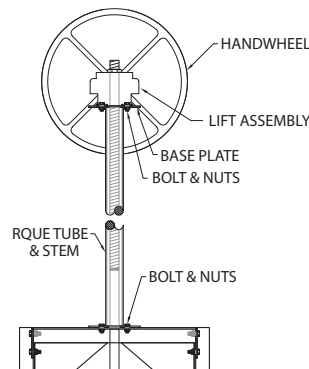
## TELESCOPING VALVE

TYPICALLY USED  
AS SKIMMER OR  
REGULATING BASIN  
WATER LEVEL.



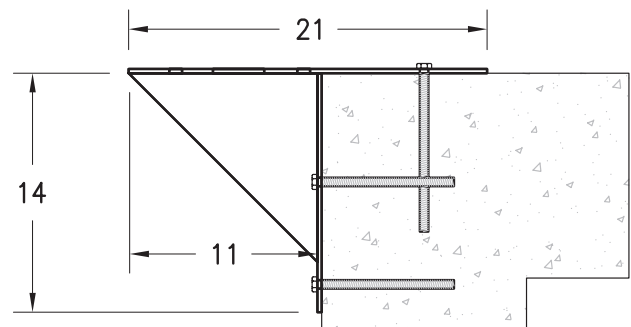
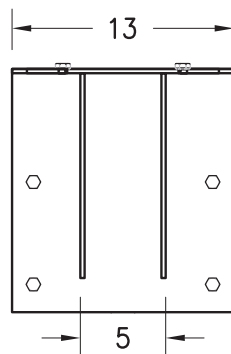
## TORQUE TUBE

TYPICALLY USED IN  
LIEU OF TALL SELF  
CONTAINED FRAME.



## TOP OF WALL BRACKET

USED FOR MOUNTING  
PEDISTAL OR  
OPERATER OT TOP OF  
WALL.  
MATERIIAL:  
304 SS  
316 SS



## INFORMATION SHEET FOR FABRICATED SLIDE GATES

A. ITEM #

NUMBER OF GATES REQUIRED

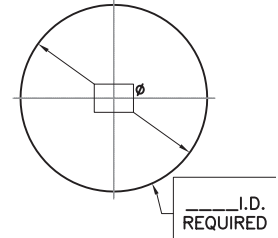
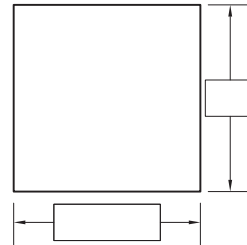
### GATE MATERIAL

- ☐ ALUMINUM  
☐ STEEL  
☐ STAINLESS STEEL

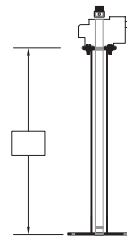
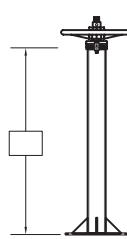
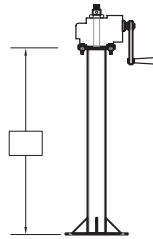
B. GATE SIZE  
WIDTHxHEIGHT

OR

DIAMETER



### C. HOIST REQUIREMENTS



### ☐ STEM COVER

- ☐ CLEAR PLASTIC  
☐ METAL

### ☐ POSITION INDICATOR

- ☐ MYLAR STRIP  
☐ COUNTER  
☐ DIAL

### ☐ RISING STEM

- ☐ NON-RISING STEM  
☐ DOWNWARD OPENING (WEIR)

- ☐ MANUAL  
☐ ELECTRIC  
☐ CYLINDER

☐ OIL

VOLTS

- ☐ HANDCRANK  
☐ WATER

PHASE

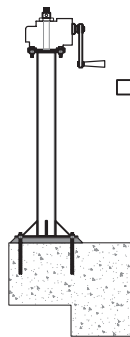
☐ AIR

CYCLES

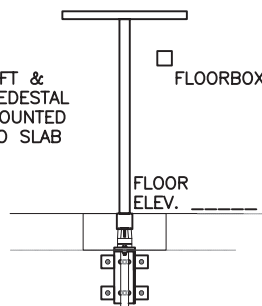
PSI

☐ 90° GEARBOX

### D. LIFT MOUNTING

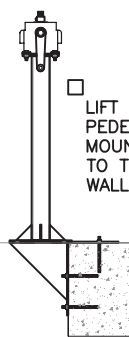


LIFT & PEDESTAL MOUNTED TO SLAB

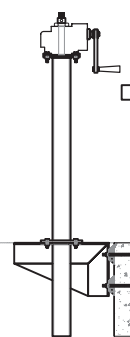


FLOORBOX

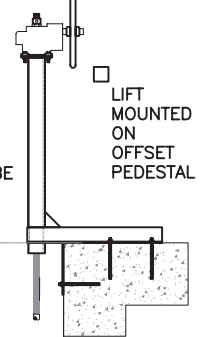
FLOOR ELEV.



LIFT & PEDESTAL MOUNTED TO TOP OF WALL BRACKET



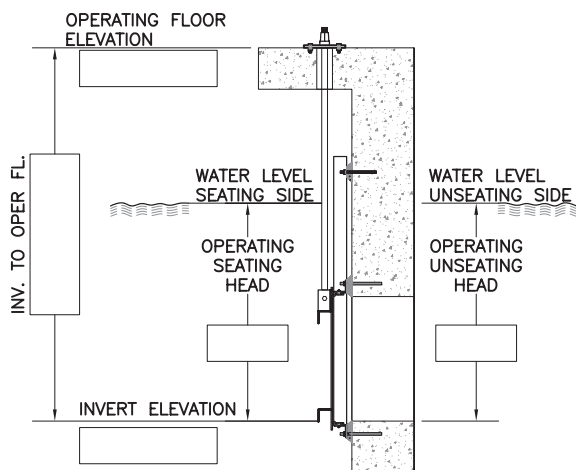
LIFT MOUNTED TO YOLK / TORQUE TUBE



LIFT MOUNTED ON OFFSET PEDESTAL

SELF-CONTAINED

### E. GATE DESIGN REQUIREMENTS



### F. MISCELLANEOUS

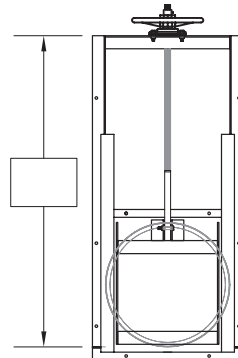
#### GATE MOUNTING TYPE

- ☐ CHANNEL MOUNT  
☐ WALL MOUNT  
☐ WEIR (DOWNWARD OPENING)

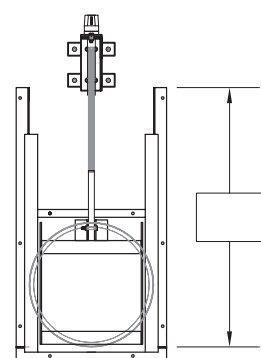
- ☐ J BULB SEALS  
☐ UHMW BEARING STRIPS  
☐ GROUTLESS GASKET

- ☐ EXISTING STRUCTURE  
☐ NEW STRUCTURE

- ☐ DESIGN HEAD SEATING UNSEATING  
 (DIFFERENT THAN OPERATING HEAD INDICATED)  
☐ INVERT OF GATE IS FLUSH WITH INVERT OF STRUCTURE



☐ SELF-CONTAINED



☐ NONSELF-CONTAINED

### G. COMMENTS