

# ALUMINUM DRAINAGE (FLAP) GATES



## WATERMAN ALUMINUM FLAP GATES MODEL AF-41

- **LIGHTER WEIGHT REDUCES INSTALLATION COSTS**
- **AVAILABLE IN: SPIGOTBACK, FLATBACK OR FLANGEBACK**
- **SIZES 12" - 84" (CUSTOM SPIGOTSIZES AVAILABLE)**
- **SEATING HEADS UP TO 30 FEET\***

- A corrosion-resistant rust-proof automatic drainage gate designed for use with HDPE or aluminum corrugated pipe for flange mounting.
- Prevents electrolysis associated with cast iron gates to aluminum pipe connections.
- J-bulb neoprene adjustable seats provide excellent sealing against return flow.

\* Recommended maximum seating heads:

8" - 30"	30 Feet
36" - 42"	20 Feet
48" - 60"	15 Feet
66" - 84"	10 Feet

# AF-41 ALUMINUM FLAP GATES

## TYPICAL SPECIFICATIONS

### GENERAL

The flap gate shall be designed to allow free outflow and prevent backflow for maximum seating heads of 30 feet.

### CONSTRUCTION

The frame shall be aluminum of flatback, spigotback or flangeback design (or other specified design configuration as required) with seating surface inclined from vertical at a minimum of 2½ degrees to assure positive closure. The aluminum cover shall be attached to the frame in such a manner as to allow proper seating and full opening of cover. Built in stops shall be provided to prevent the cover from rotating sufficiently to become wedged in the open position. A resilient neoprene seal shall be attached to the inside of the frame opening and shall act as a seat for the cover to seal against. The seal shall be retained by an aluminum ring bolted to the frame.

The linkage system shall be of the double pivoted type, attached to fixed pivot points on cover and frame. Hinge links shall be of structural aluminum shapes. The heavily reinforced hinge arm of the Model AF-41 is fastened to the pivot lug by means of heavy stainless steel hinge pins inserted through a durable non-metallic bushing. The hinge pin is arranged in a double shear configuration at extremely close tolerances thus severely limiting lateral movement. This, in conjunction with the protruding rubber seat (in lieu of a recessed seat) insures positive seating at all times regardless of the angle of tidal action.

### MATERIALS

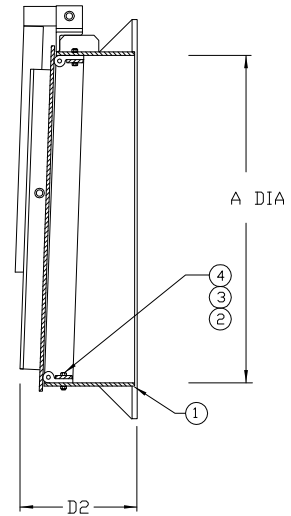
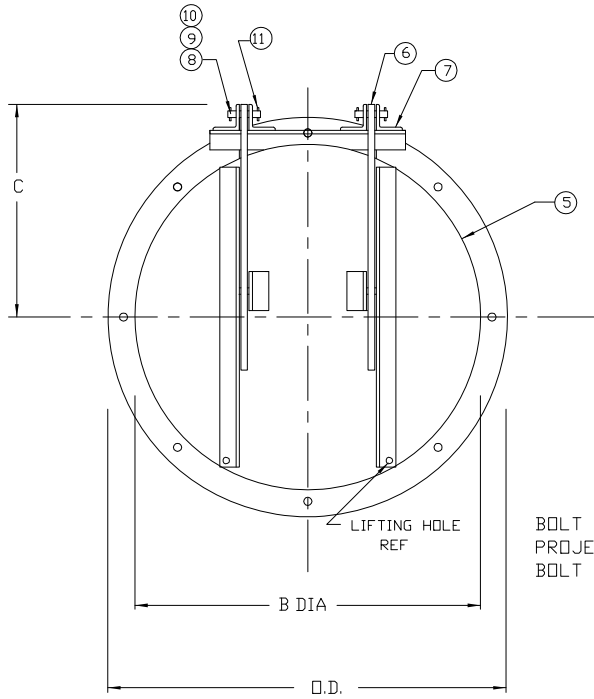
Frame, cover and hinge link  
Aluminum alloy 6061-T6

Fasteners  
Stainless Steel - ASTM F-593 and F-594 Type 304 or 316, as specified

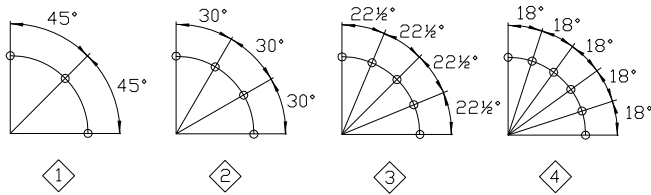
Seals  
Neoprene Rubber - ASTM D-2000

Finish  
Mill finish on all surfaces

FOR PRELIMINARY DESIGN PURPOSES ONLY  
DO NOT USE FOR INSTALLATION UNLESS  
PART OF CERTIFIED & APPROVED SUBMITTAL



BOLT DIA = M  
PROJECTION = P  
BOLT CIRCLE = B.C.



NO.	NAME
1	FRAME
2	SEAT
3	RETAINER RING
4	HEX HEAD BOLT/NUT
5	COVER
6	HINGE ARM
7	PIVOT LUG
8	HEX HEAD BOLT/NUT
9	HINGE PIN
10	BUSHING
11	WASHER
12	SPRING PIN

GATE SIZE	A	B	C	D1	D2	D3	E	E3	O.D.	B.C.	M	P [2]	◇
12	13 1/8	13 1/2	10 1/4	8 3/4	8 7/8	11 1/2	4	7	17 1/2	15 3/4	1/2	1	1
15	16 1/8	17	12 1/4	8 3/4	8 7/8	11 1/2	4	7	20 1/2	18 3/4	1/2	1	2
18	19 1/8	20	14 1/4	8 3/4	8 7/8	11 1/2	4	7	23 1/2	21 3/4	1/2	1	2
24	25 1/8	26 1/2	16 3/4	8 3/4	8 7/8	11 1/2	4	7	30 7/8	28 1/4	1/2	1 1/2	2
30	31 1/8	32 1/2	19 3/4	10 1/2	10 5/8	12	4 1/2	7	36 5/8	34 1/4	1/2	1 1/2	3
36	37 1/8	38 1/2	24	10 1/4	10 3/8	12	4 1/2	7 1/2	42 5/8	40 1/4	1/2	1 1/2	3
42	43 1/8	46	28	13	13 1/8	-	5 1/2	-	48 5/8	46 1/4	1/2	1 1/2	3
48	49 1/8	52	31	13 5/8	13 3/4	-	5 1/2	-	54 5/8	52 1/4	1/2	1 1/2	4
54	55 1/8	58	35	13 1/4	13 3/8	-	6 1/2	-	60 5/8	58 1/4	5/8	2	4
60	61 1/8	64	38	15 1/4	15 3/8	-	6 1/2	-	66 5/8	64 1/4	5/8	2	4
72	73 1/8	76	44 1/2	17 1/8	17 1/4	-	7 1/4	-	78 5/8	76 1/4	5/8	2	4
84	DIMENSIONS UPON REQUEST												

[2] ADD GROUT PAD THICKNESS TO ANCHR BOLT PROJECTION  
1 ALL DIMENSIONS ARE IN INCH  
NOTES: UNLESS OTHERWISE SPECIFIED.

REVISION	DATE	APPROVED
DRAWN BY MK	CHECKED BY	
SCALE NONE	DATE 28-10-05	
DRAWING NO. 100635		

AF-41 FLAP GATES

WATERMAN INDUSTRIES OF EGYPT