

# PE FLAP GATE



INTRODUCTION

Spiral PE Flap Gate is designed to allow water to flow out for discharge and closed to prevent water to flow in to mitigate flooding of the area.



GENERAL SPECIFICATION

**Material:**  
PE100

**Size:**  
Circular : ID 300mm through 3000mm  
Rectangular : Length 300mm through 3000mm availability

Irregular Size upon request

**Colour:**  
Black: Carbon Black content of the raw material used must be not less than 2% in weight. The requirement of the carbon black is to give UV protection from sunlight.

**Type of Flap Gate**  
PE Wall Mounted "Spiral" Flap Gate (Square Type)  
PE Wall Mounted "Spiral" Flap Gate (Circular Type)  
PE "Spiral" Flap Gate c/w Spiral Pipe

The flap door is designed to rest on the collar frame at an angle of 5° / 10° from the vertical plane.

ADVANTAGE

- High quality PE material and easy installation
- High temperature and chemical resistance
- UV protection and corrosion proof
- Ability to withstand high water pressure

APPLICATION

- Automatic operating control by hydro force
- To prevent back flow from storm rain in main river flow into lower land area
- Maintenance free and low head loss  
Suitable use for water, waste water and pipeline application
- Effective tidal and flood control

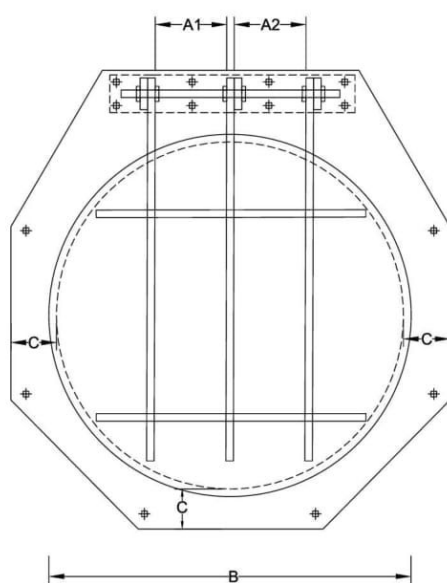
## STANDARD DETAILS

## A) WALL MOUNTED TYPE

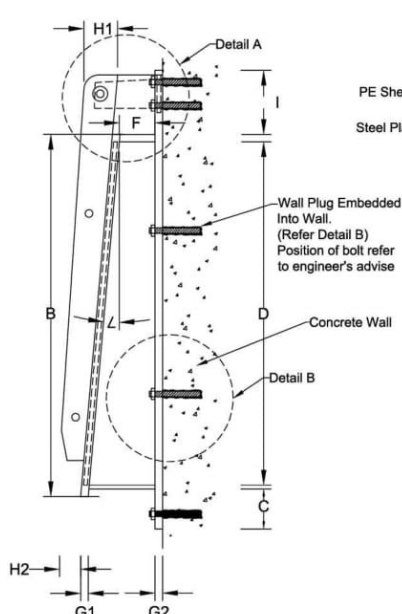
- i. Circular wall mounted
- ii. Rectangular wall mounted

## 'SPIRAL' HDPE FLAP GATE - Wall mounted

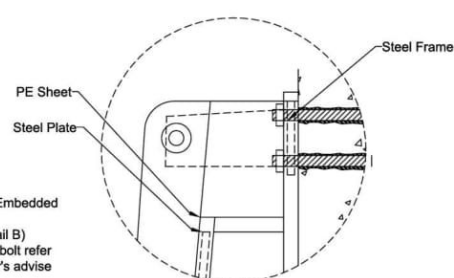
Type : Circular



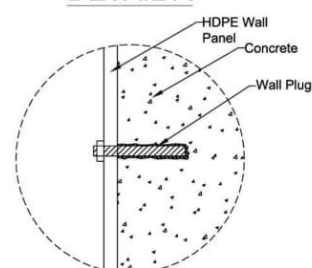
FRONT VIEW



SIDE VIEW



DETAIL A



DETAIL B

## Schedule Data

MODEL	A1	A2	A3	A4	B	C	D	F	G1	G2	H1	H2	I	ANGLE
C300	130	NA	NA	NA	420	110	300	100	28.5	20	80	70	130	5°/10°
C450	180	NA	NA	NA	580	110	450	100	28.5	20	80	70	130	5°/10°
C600	200	NA	NA	NA	760	130	600	100	28.5	20	80	70	150	5°/10°
C750	210	NA	NA	NA	910	130	750	150	28.5	20	80	70	150	5°/10°
C900	280	NA	NA	NA	1060	130	900	150	28.5	20	100	80	240	5°/10°
C1000	310	NA	NA	NA	1160	130	1000	150	28.5	28	100	80	240	5°/10°
C1200	240	240	NA	NA	1360	150	1200	160	34	28	100	80	255	5°/10°
C1500	270	270	NA	NA	1680	150	1500	200	34	28	120	100	265	5°/10°
C1800	270	270	270	NA	1980	170	1800	240	36	28	120	100	285	5°/10°
C2000	300	300	300	NA	2180	170	2000	240	38	28	140	120	285	5°/10°
C2365	340	340	340	340	2560	180	2365	300	38	28	140	120	380	5°/10°
C3000	500	500	500	500	3180	180	3000	300	38	28	140	120	460	5°/10°

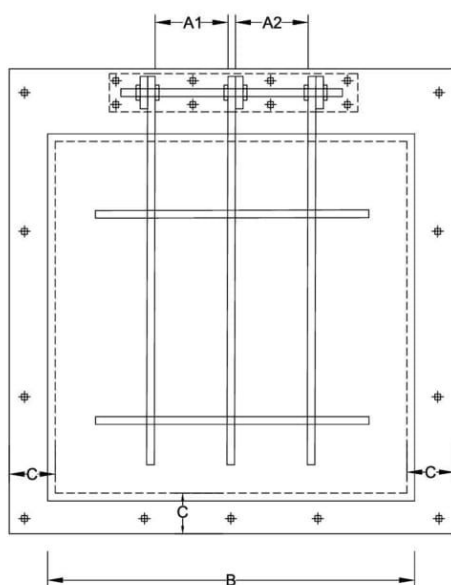
Note: All units in mm  
 All dimensions with tolerance  $\pm 20\text{mm}$  only G1&G2 $\pm 5\text{mm}$   
 Drawing for reference only  
 The flap gates shall be of size and material grades as specified herein and as shown on drawings.  
 Custom made flap gate to suit site conditions is available upon request.



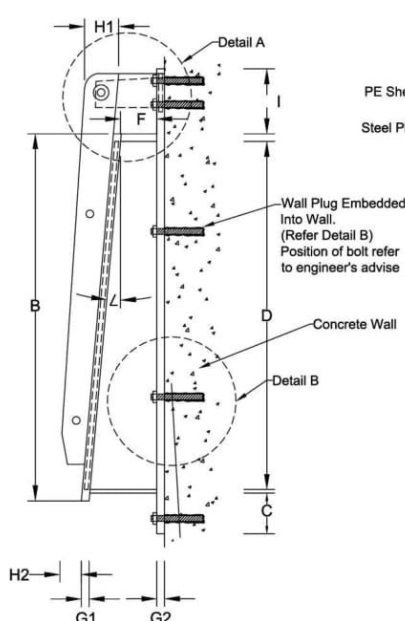
## STANDARD DETAILS

## 'SPIRAL' HDPE FLAP GATE - Wall mounted

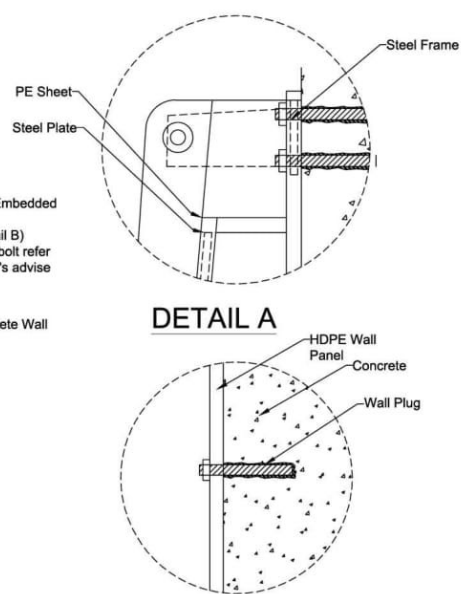
Type : Rectangular



FRONT VIEW



SIDE VIEW



DETAIL B

## Schedule Data

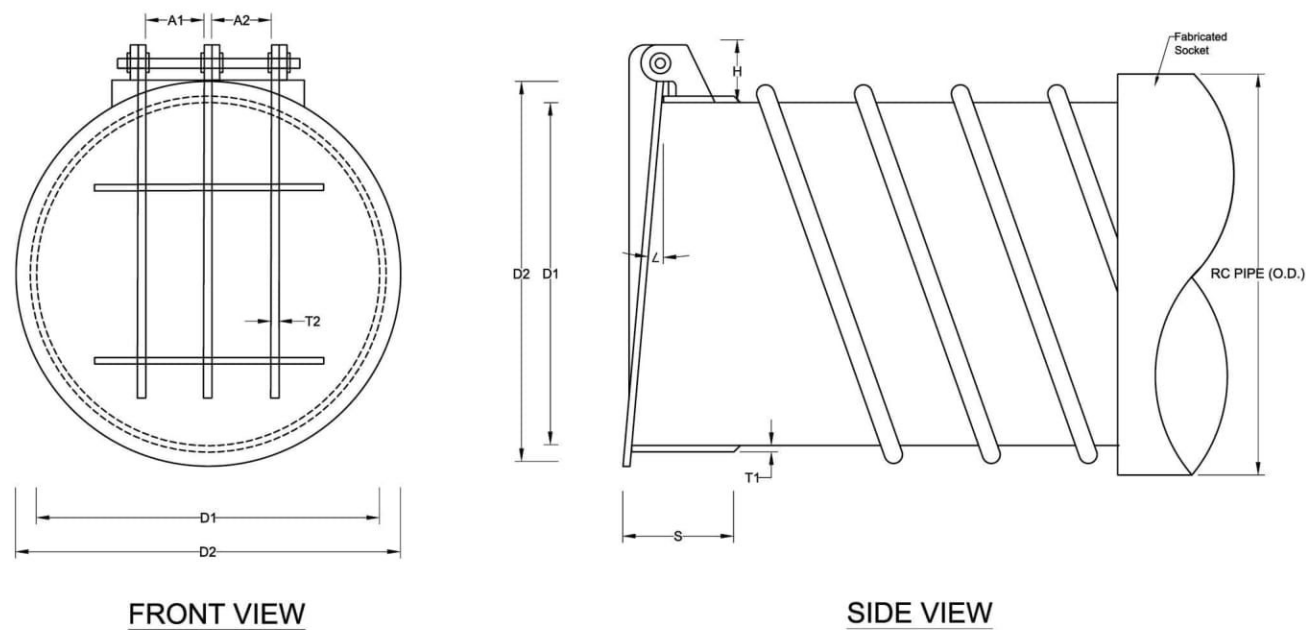
MODEL	A1	A2	A3	A4	B	C	D	F	G1	G2	H1	H2	I	ANGLE
R600 X 600	230	NA	NA	NA	790	110	600	170	28.5	20	80	70	200	5°/10°
R700 X 700	310	NA	NA	NA	900	110	700	200	28.5	20	80	70	200	5°/10°
R900 X 900	350	NA	NA	NA	1100	130	900	220	30	20	100	80	240	5°/10°
R1000 X 1000	410	NA	NA	NA	1220	130	1000	220	30	28	100	80	240	5°/10°
R1200 X 1200	280	280	280	NA	1400	130	1200	220	34	28	100	80	250	5°/10°
R1500 X 1500	370	380	370	NA	1720	130	1500	220	34	28	120	100	260	5°/10°
R1800 X 1800	480	500	480	NA	2020	150	1800	220	36	28	120	100	260	5°/10°
R2000 X 2000	530	530	530	NA	2260	150	2000	220	38	28	140	120	260	5°/10°
R2100 X 2100	580	580	580	NA	2340	150	2100	240	38	28	140	120	260	5°/10°
R2400 X 2400	500	500	500	500	2660	170	2400	240	38	28	140	120	260	5°/10°
R3000 X 3000	650	650	650	650	3260	180	3000	240	38	28	140	120	260	5°/10°

Note: All units in mm  
 All dimensions with tolerance  $\pm 20\text{mm}$  only G1&G2 $\pm 5\text{mm}$   
 Drawing for reference only  
 The flap gates shall be of size and material grades as specified herein and as shown on drawings.  
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STANDARD DETAILS

B) FLAP GATE ATTACHED WITH PE PIPE

‘SPIRAL’ HDPE FLAP GATE - attached with pipe



Schedule Data

PIPE DIAMETER	D1	D2	A1	A2	A3	H	T1	T2	S	ANGLE
P 600	600	760	180	NA	NA	220	30	20	400	5°/10°
P 900	900	1060	300	NA	NA	230	30	25	400	5°/10°
P 1000	1000	1160	320	NA	NA	240	30	25	400	5°/10°
P 1200	1200	1360	220	220	NA	250	30	25	400	5°/10°
P 1500	1500	1680	250	250	NA	250	35	25	400	5°/10°
P 1800	1800	1980	270	220	270	280	35	30	400	5°/10°

Note: All units in mm  
All dimensions with tolerance ±20mm only T1 & T2 ±10mm  
Drawing for reference only  
The flap gates shall be of size and material grades as specified herein and as shown on drawings.  
Custom made flap gate to suit site conditions is available upon request.

## STACKING & HANDLING

- **DO** – Store gates evenly on planks or timbers. Even the heaviest castings are subject to permanent warpage if unevenly blocked during storage.
- **DON'T** – Stack gates without heavy wood blocking between gates.

## INSTALLATION

- Place the templet in the correct position of flap gate to trace the centre lines and the holes location.
- Transfer the templet to the surface refer on the centre lines and mark the holes location accordingly and add on any holes location which necessary
- Drill the holes on the surface and flap gate (if any) according to the holes location marked.
- Lift the flap gate carefully and place it to the marking done accordingly.
- Fix the bolt and nuts on the flap gate follow cross position matter to ensure the flap gate is install align with the centre line mark.
- Tighten nuts for studs evenly.
- Make sure the surface is clean and dry before grouting sealing between the concrete wall and the back plate. To ensure no leakages after install.

Note:

- DON'T – Disassemble the gates for installation.
- DON'T – Allow excess concrete to overlap gate thimble or frame.
- DON'T – Tighten nuts for studs or anchors unevenly, or try to pull a gate frame tightly against an uneven wall surface. This, in most cases, will cause excessive leakage.
- DON'T – Operate gates with concrete and debris on them.