

MODEL

RC/RR

GENERAL DESCRIPTION

The ORBINOX model RC and RR Flap Gates are designed for discharge lines such as levees, sewer lines and drainage conduits. The flap stays closed preventing water back-flow, and it opens automatically when the unseating water head is higher than the seating water head. From sizes 150mm x 150mm to 2000mm x 2000mm the RC square Flap Gate and the RR round Flap Gate have a unique seal design, resulting in a substantially watertight performance. ORBINOX can also design and manufacture the RC and RR models in larger sizes. For more information, please contact an ORBINOX representative.



RC Square Flap Gate

CONSTRUCTION DESIGN

The ORBINOX RR and RC models are designed in general accordance to DIN 19569-4. It can be also be designed in general accordance to other standards, such as BS 7775.

The standard RR and RC models are manufactured in stainless steel which has a higher corrosion resistance in many applications which results in a longer life cycle with little or no maintenance. Other materials of construction are available upon request, such as AISI 904L, Duplex stainless, etc.



RR Round Flap Gate

DESIGN FEATURES

- Stainless steel fabricated design (corrosion resistance).
- Double jointed pivot arm design ensures a perfect seating for optimum sealing performance.
- Self adjusting "lip" type seal design ensures a substantially watertight performance even with low seating water heads.
- The flap opens with low unseating heads (50mm to 300mm depending on the size). If the water head on both sides of the flap gate is equal, the flap closes automatically.
- Option of Wall Mount, Wall Thimble Mount or Standard Flange mounting.
- ORBINOX Flap Gates are completely factory assembled and tested eliminating the need for on site adjustment.

Seat Design Head:

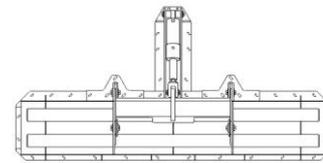
The RC and RR models are designed to withstand 5 m.w.c.M of seating water head. For higher water head service conditions please contact an ORBINOX representative.

Seal design:

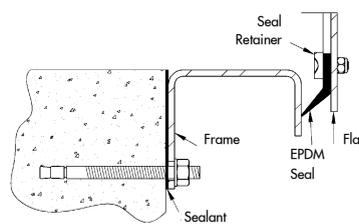
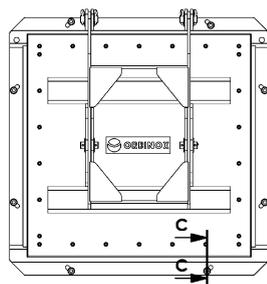
The RC and RR models have a unique seal design. The selfadjusting "lip-design" seals ensure a substantially watertight performance, even in low seating water head conditions. The leakage rate on the models RR and RC is lower than the maximum allowable defined by DIN 19569-4 (class 3).

Special Designs:

In certain applications, such as storm tanks, fast opening Flap Gates are required. The Flap Gate can be designed to open rapidly with the help of an hydraulic actuator in order to effectively flush the bottom of the storm tanks. Typically 2 to 3 seconds are required to fully open the flap, and it generates a wave having a powerful flushing action. For more detailed information, please contact an ORBINOX representative.

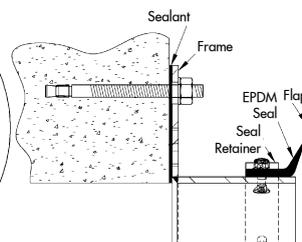
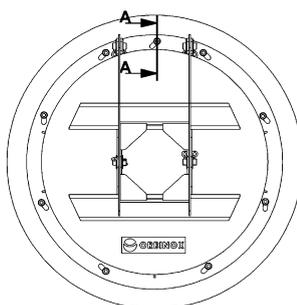


SEAL DESIGN: RC Square Flap Gate

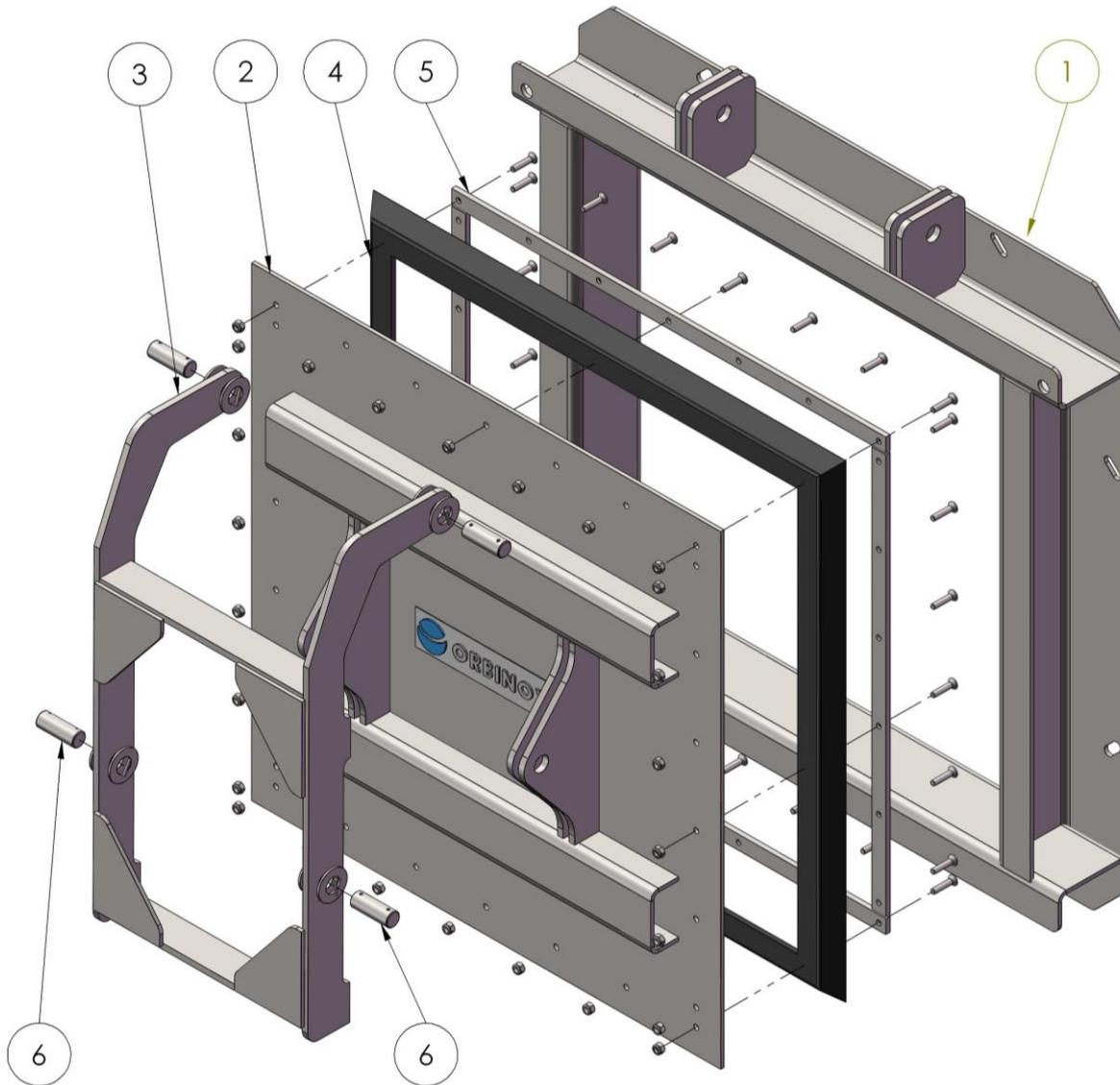


Detail view of Section C-C

SEAL DESIGN: RR Round Flap Gate



Detail view of Section A-A

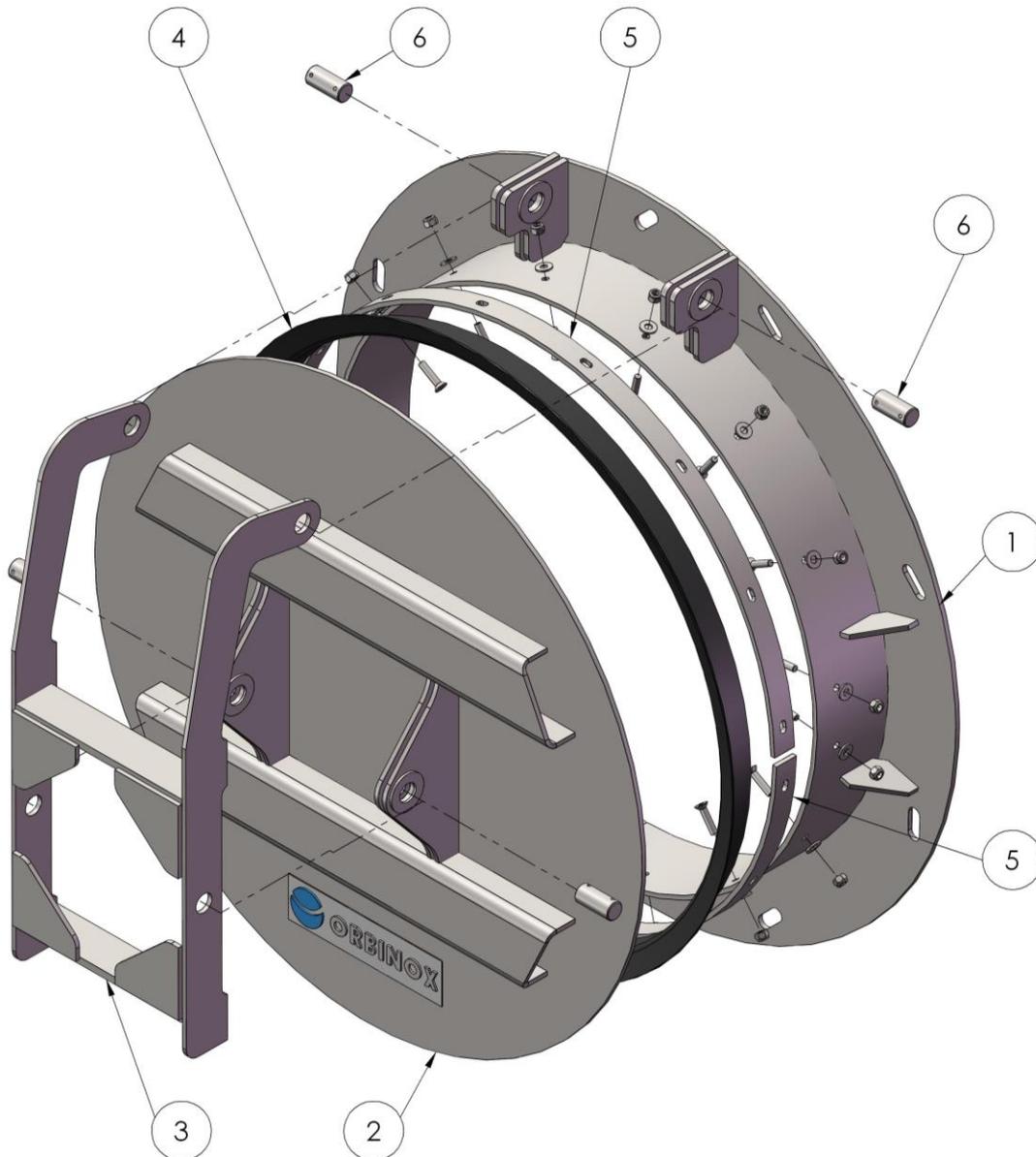
MODEL**RC/RR**
STANDARD MATERIALS OF CONSTRUCTION
RC Square Flap Gate


ITEM	DESCRIPTION	MATERIAL
1	Frame	Stainless Steel Type 304/304L or 316/316L
2	Flap	Stainless Steel Type 304/304L or 316/316L
3	Pivot Arm	Stainless Steel Type 304/304L or 316/316L
4	Seal	EPDM
5	Seal Retainer	Stainless Steel Type 304/304L or 316/316L
6	Hinge Pin	Stainless Steel Type 304/304L or 316/316L

Note: For materials other than the above, please consult an ORBINOX representative.

STANDARD MATERIALS OF CONSTRUCTION

RR Round Flap Gate



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1	Frame	Stainless Steel Type 304/304L or 316/316L
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MODEL

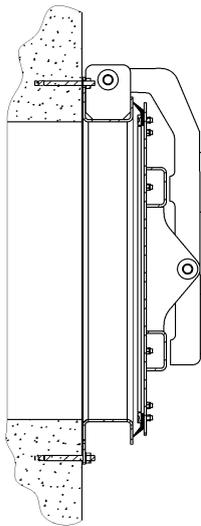
RC/RR

MOUNTING OPTIONS

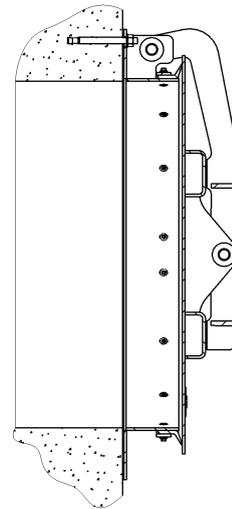
The following drawings show the most common mounting options for RC and RR Flap Gates. For other mounting options please contact an ORBINOX representative.

WALL MOUNTED

Model: RC

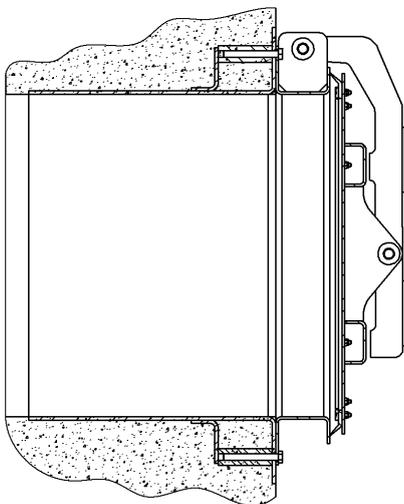


Model: RR



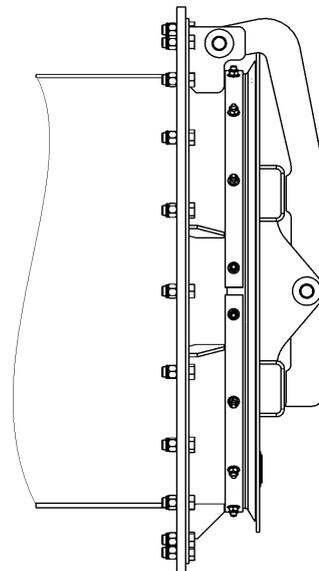
ON A WALL THIMBLE

Model: RC



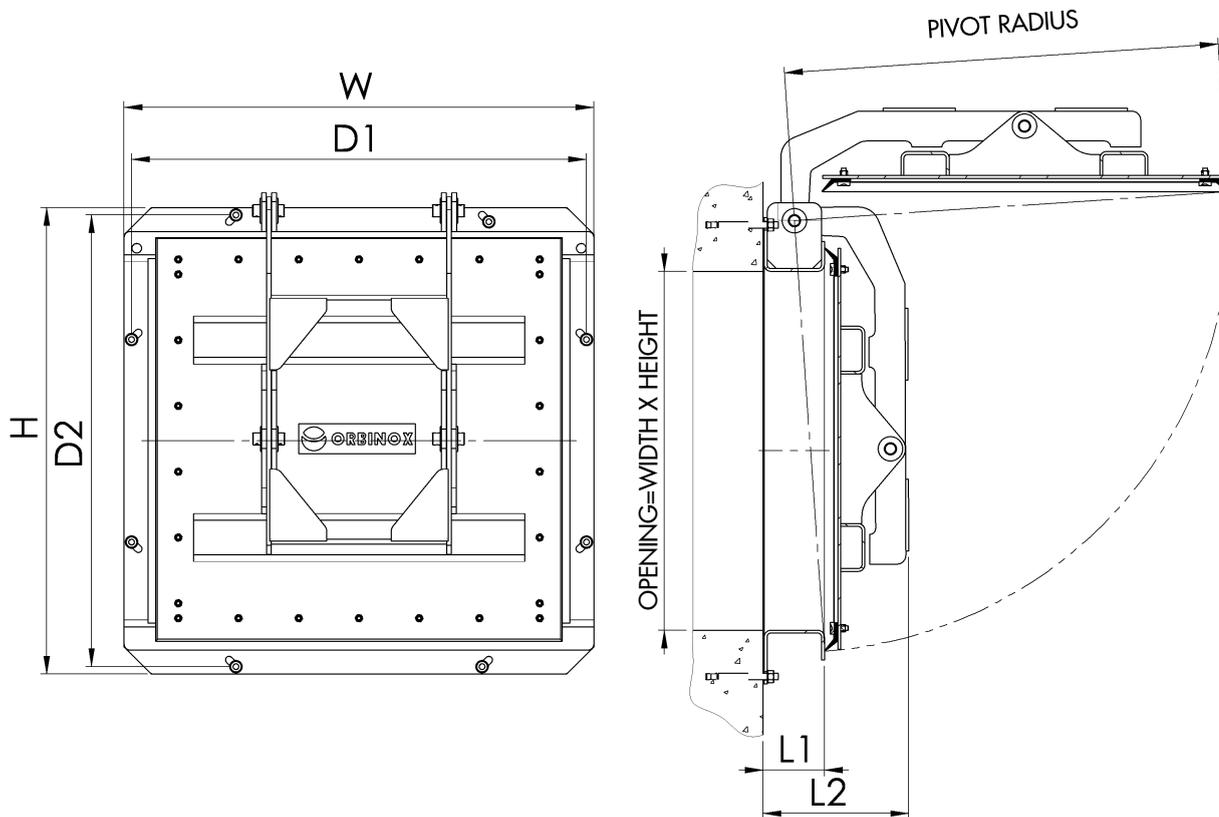
ON A STANDARD FLANGE

Model: RR



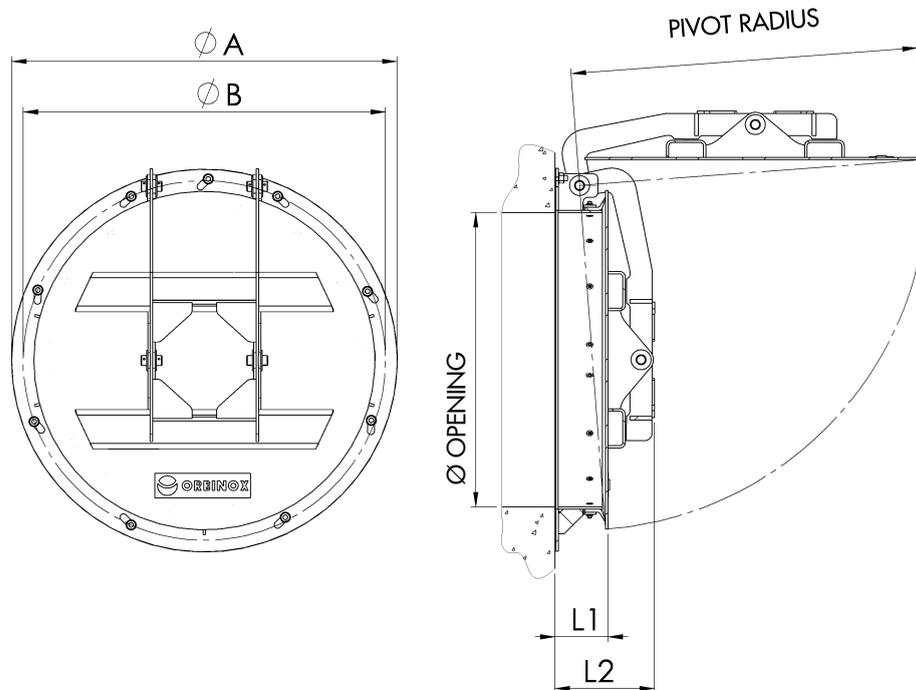
MODEL**RC/RR****RC · DIMENSIONS**

The following drawings show the most common mounting options, as well as the respective dimensional charts.



SIZE(mm) (Opening Width)	SIZE(mm) (opening Height)	W	H	D1	D2	L1	L2	PIVOT RADIUS
150	150	330	330	300	300	100	153	267
200	200	380	380	350	350	100	153	316
300	300	480	480	450	450	100	153	415
400	400	580	580	550	550	100	153	514
500	500	680	680	650	650	100	153	614
600	600	780	780	770	770	100	153	714
700	700	880	880	870	870	100	226	814
800	800	980	980	970	970	100	226	913
900	900	1080	1080	1070	1070	100	226	1013
1000	1000	1200	1200	1170	1170	100	226	1113
1100	1100	1300	1300	1270	1270	100	231	1213
1200	1200	1400	1400	1370	1370	100	231	1313
1300	1300	1500	1500	1470	1470	100	231	1413
1400	1400	1600	1600	1570	1570	100	231	1513
1500	1500	1700	1700	1670	1670	100	288	1613
2000	2000	2200	2200	2170	2170	100	288	2113

These dimensions are for information only. Do not use for installation or submittal purposes.

MODEL**RC/RR****RR · DIMENSIONS**

SIZE(mm) (Opening Diameter)	A	B	L1	L2	PIVOT RADIUS
150	285	240	94	148	267
200	340	295	94	148	316
300	445	400	104	158	415
400	565	515	104	160	514
500	670	620	106	161	614
600	780	725	106	202	714
700	895	840	106	202	814
800	1015	950	106	202	913
900	1115	1050	106	202	1013
1000	1230	1160	106	212	1113
1100	1320	1260	106	212	1213
1200	1455	1380	126	232	1313
1300	1560	1510	123	212	1413
1400	1675	1590	148	289	1513
1500	1785	1700	148	289	1625
2000	2325	2230	214	398	2185

Note: For dimensions other than the above, please consult an ORBINOX representative.
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MODEL

RC/RR



RR AND RC FLAP GATE SELECTION FORM

Customer: Tag No.: Date: Order Number: Qty.:

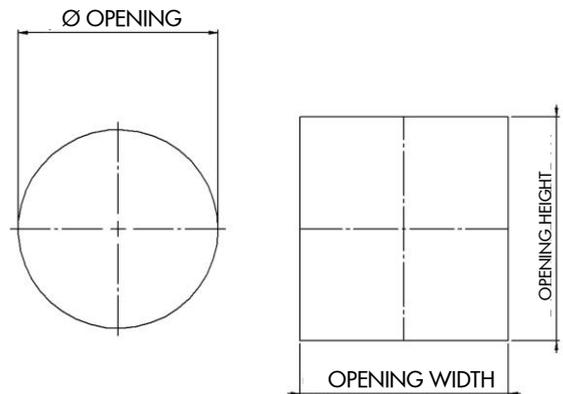
FLAP GATE DESIGN

Units: mm inch

RR: Round Flap Gate Opening diameter:

RC: Square Flap Gate Opening Width: Opening Height:

Seating Water Head:



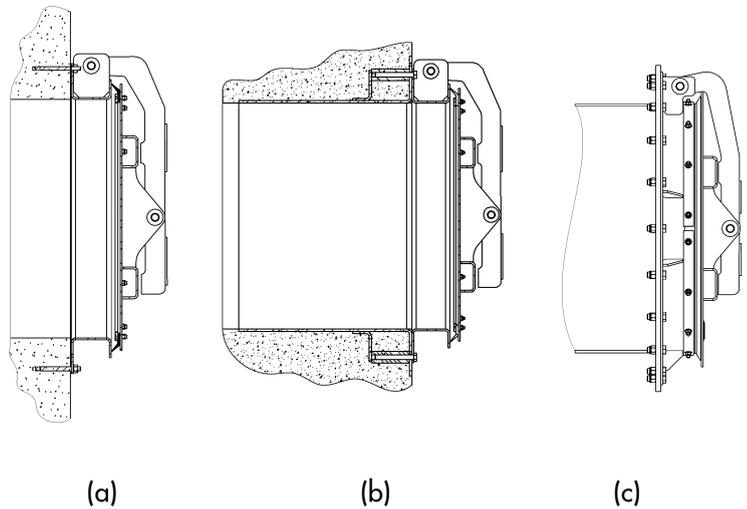
MOUNTING OPTIONS

- Wall Mounted (a) Wall Thimble Mounted (b) Std. Flange Mounted (c)

Flange Type:

Other:

Empty box for other mounting options



MATERIALS

Frame & Flap Seal 304L SS EPDM 316L SS Other:

REMARKS

Name: Signature: