

MODEL

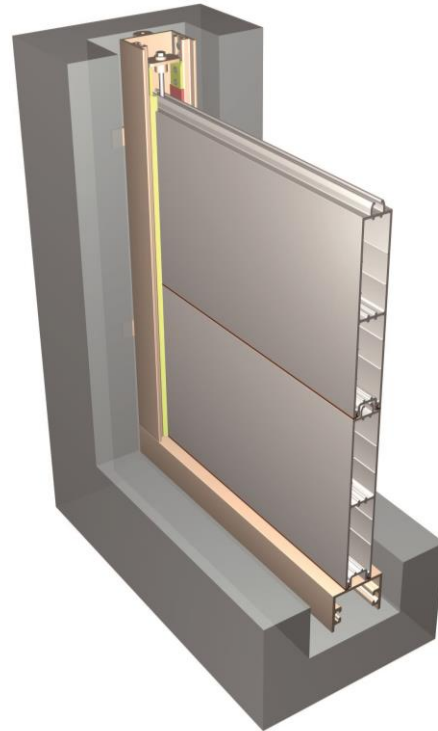
SA

## GENERAL DESCRIPTION

The ORBINOX 3-side sealing model SA Aluminum Stop Log is designed for open channel installations for temporary isolation and flow control. Stop Logs are ideal for maintenance and repair works or flood control and diversion.

The logs are made of extruded aluminum and are very easy to handle due to their light weight. The logs are stacked on top of each other in the frame guides. The water level is controlled by adding or removing logs. The sealing system is bidirectional (suitable for flows in either direction) and allows to achieve very low leakage rates.

The frame can be made of aluminum or stainless steel and it can be designed to be embedded in concrete, wall mount or face mounted in a existing channel.



## DESIGN FEATURES

### Log Design:

- Extruded aluminum logs (EN-AW 6063 T6) for easy handling.
- Stackable logs: water level can be controlled by adding or removing logs.
- Three different log sizes available to always find a solution to the specific channel width and flow control requirements.
- Various logs can be connected together to manipulate them simultaneously. For instance, two "B" type logs can be connected, achieving a single log of 300mm height.

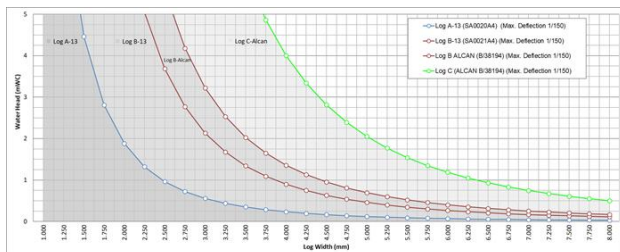
### Frame Design:

- Stainless steel or aluminum frame guides.
- Mounting options: embedded in concrete, wall mount or face mounted in existing channel.

### Sealing system:

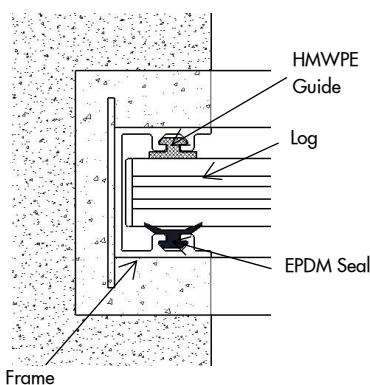
- Bidirectional self adjusting seal to control flow in either direction.
- Excellent tightness
- Vertical seals are placed on the frame guides. Horizontal seals are placed at the top of each log to prevent leak between logs.
- HMWPE guides are placed on the frame guides to assure no metal-to-metal contact between the frame and the logs, which reduces friction during operation and extends seal life.

Log Type	A-OX	B-OX	B-AL	C-AL
Log Height, h (mm)	300	300	150	225
Log Depth, c (mm)	50	90	90	150
Log Weight (kg/m)	8,05	9,4	7,3	11,2

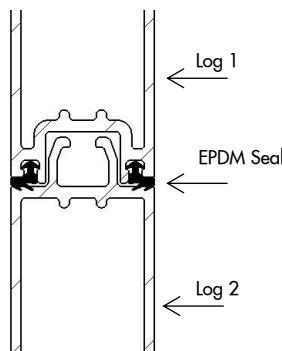


## SEAL DESIGN

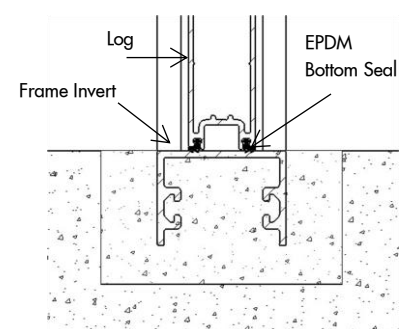
### SIDE SEAL



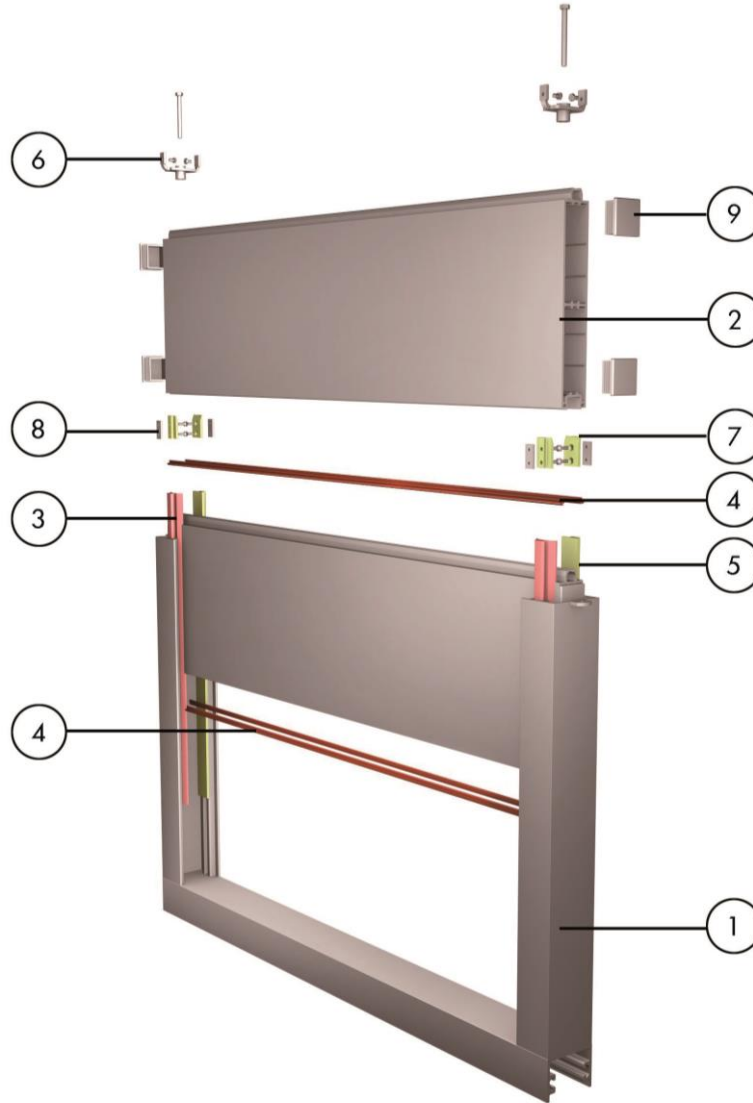
### SEAL



### SEAL



STANDARD CONSTRUCTION MATERIALS



ITEM	DESCRIPTION	MATERIAL
1	Frame	Stainless steel 304 / 304L / 316 / 316L / Aluminum EN-AW 6063-T6
2	Logs	Aluminum EN-AW 6063-T6
3	Side seal	EPDM
4	Seal	EPDM
5	Slider	HMWPE
6	Log locking system	Stainless steel 304 / 304L / 316 / 316L
7	Seal and slides locks	HMWPE
8	Limit flange	1.4401/AISI 316
9	Side guide cap	PE-HMW 500

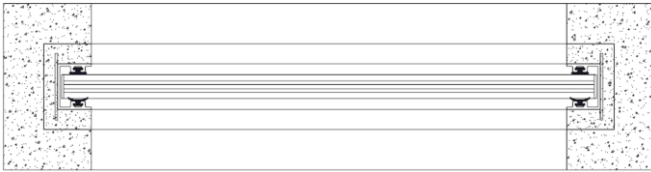
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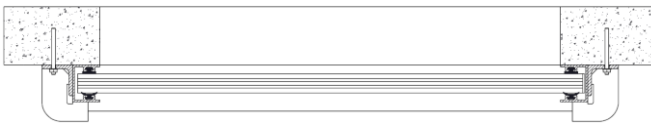
## MOUNTING OPTIONS

The following drawings show the most common mounting options. For other mounting options please contact an ORBINOX representative.

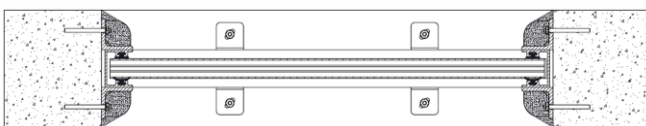
### EMBEDDED IN CONCRETE (EC)



### WALL MOUNTED (WM)



### IN EXISTING CHANNEL (FM)



## LIFTING EQUIPMENT

ORBINOX offers different lifting solutions to safely and effectively handle the logs. When the weight of the log is lower than 25kg, it can be handled with a lifting pole. The lifting pole fits in the frame guide and it is guided to easily hook the log.

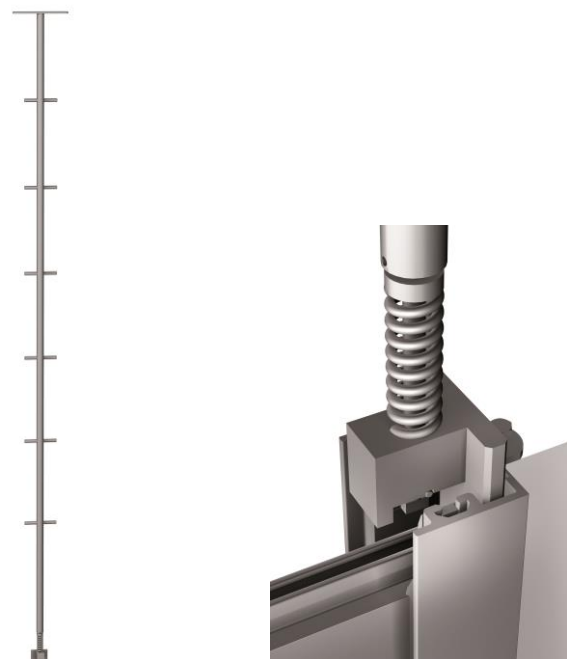
For heavier logs, or when access is difficult, ORBINOX offers a lifting device. The lifting device, which is connected to a crane, fits into both lateral frame guides and hooks and releases the logs (via lifting pins) remotely and semi-automatically.

Logs can be connected together to lift them simultaneously. There is also available a locking device. It is used to lock the logs in position once the proper log arrangement has been achieved.

### Lifting Device:



### Hand Pole:



## INSTALLATION, OPERATION AND MAINTENANCE (IOM)

This section briefly describes the installation, operation and maintenance of SA Aluminum Stop Logs. For more detailed information please refer to the IOM Manual.

### Installation:

A) Embedded in Concrete (EC): the stop log shall be perfectly centered in the concrete recess prior to embedding in concrete.

B) Wall Mount: the SA Aluminum Stop Log is installed by means of mechanical anchor bolts and construction sealant (Sikaflex 11FC or equivalent).

C) Face Mounted in Existing Channel: the SA Aluminum Stop Log is installed by means of mechanical anchor bolts. All the gaps shall be grout filled afterwards and shaped in order to assure a smooth transition.

The minimum concrete strength shall be 20.7Mpa. The tolerance of the concrete construction (flatness, levelness, and plumbness) shall be in accordance to Din 18202.

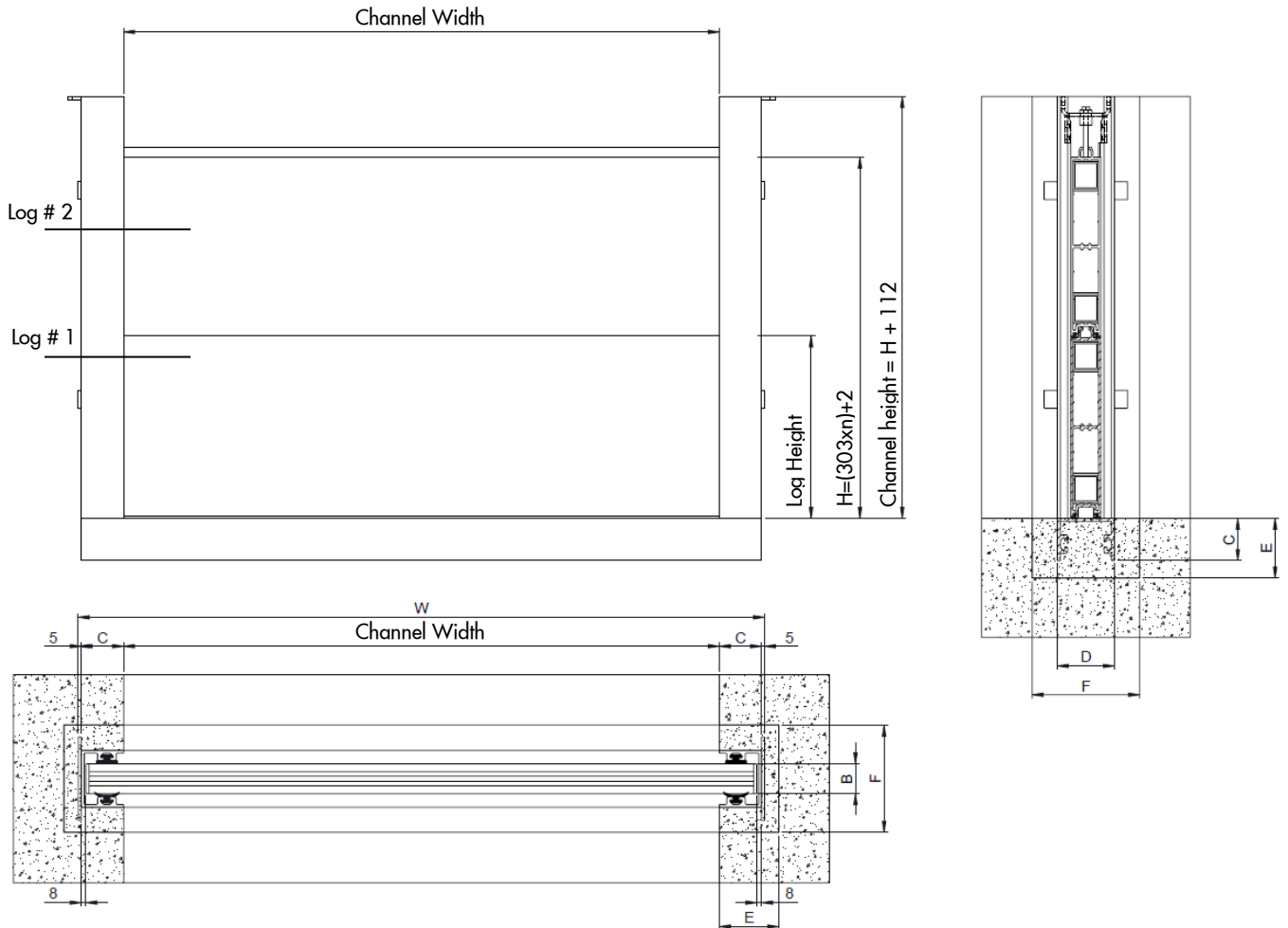
For detailed information about the type, size and quantity of the required anchor bolts or other installation materials, please refer to the "General Arrangement Drawing".

### Maintenance and Operations:

ORBINOX SA Aluminum Stop Logs need practically no maintenance. Seals shall be replaced in case of damage.

ORBINOX recommends the use of a lifting device for pullout- forces over 50kg (25kg each person). The pull-out-force depends on the weight of the log and the water head at which we are operating.

**EMBEDDED IN CONCRETE . DIMENSIONS**

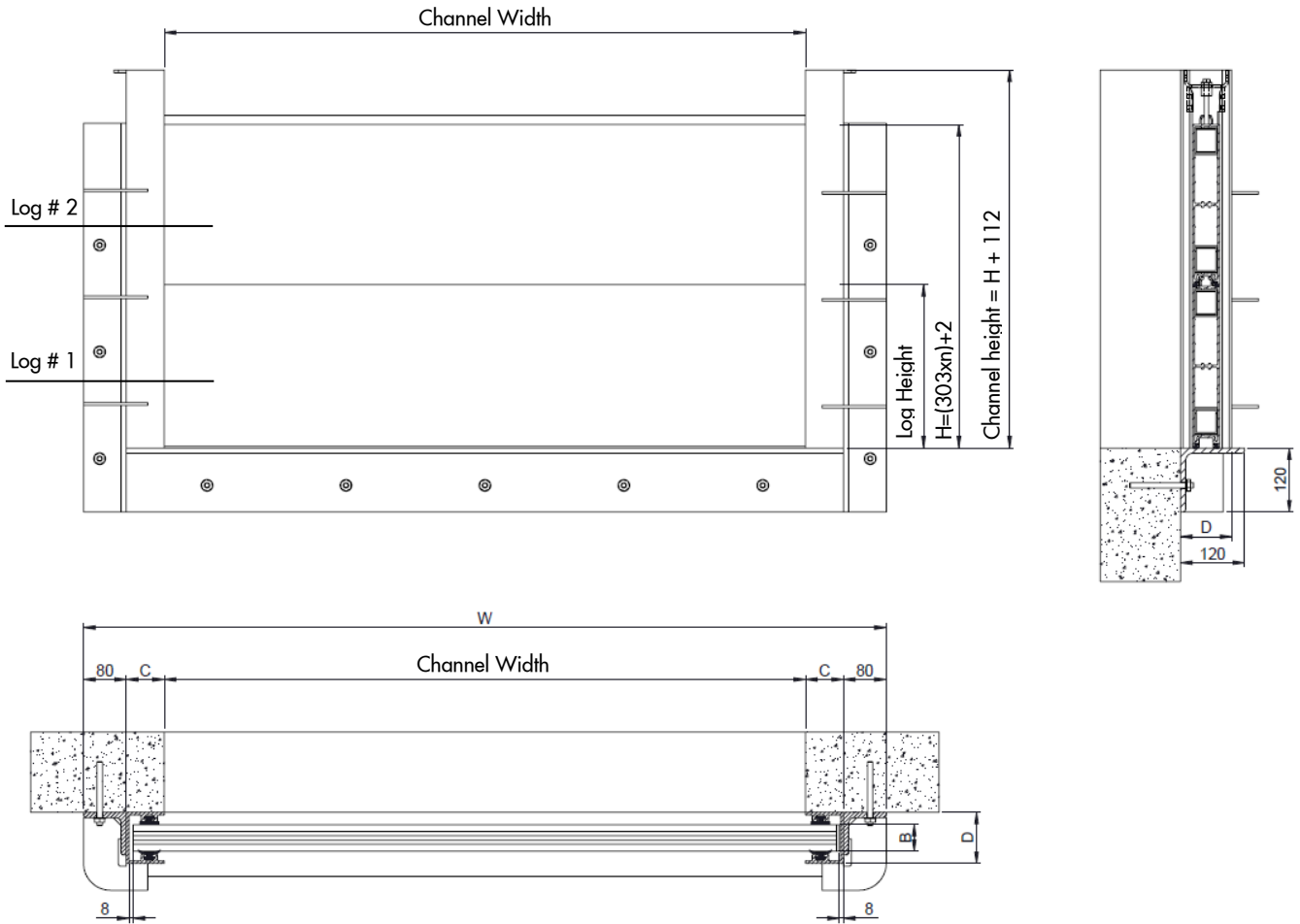


LOG TYPE	B	Log Height	C	D	E	F
A	50	300	71	96	100	180
B	90	150/300	75	136	100	220
C	150	225	75	196	100	280

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**WALL MOUNTED . DIMENSIONS**

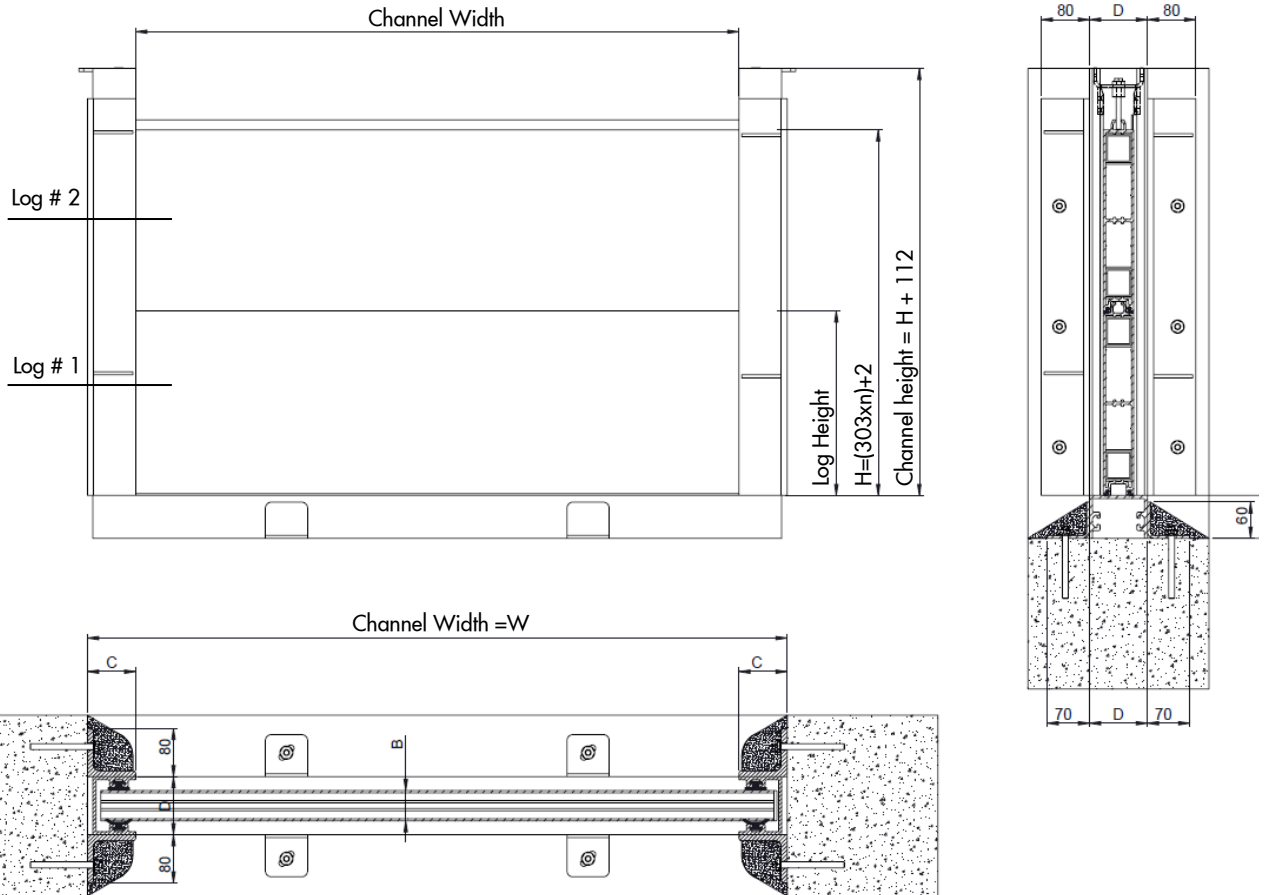


LOG TYPE	B	Log Height	C	D	E	F
A	50	300	71	96	100	180
B	90	150/300	75	136	100	220
C	150	225	75	196	100	280

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**FACE MOUNTED IN EXISTING CHANNEL . DIMENSIONS**



LOG TYPE	B	Log Height	C	D	E	F
A	50	300	71	96	100	180
B	90	150/300	75	136	100	220
C	150	225	75	196	100	280



**SA ALUMINUM STOP LOG SELECTION FORM**

Customer: \_\_\_\_\_ Tag No.: \_\_\_\_\_ Date: \_\_\_\_\_

Order Number: \_\_\_\_\_ Qty.: \_\_\_\_\_

**ALUMINUM STOP LOG DESIGN**  
**(Size = Channel Width x Logs Height)**

Units: mm  inch

Channel Width: \_\_\_\_\_ Channel Height: \_\_\_\_\_

Number of Logs: \_\_\_\_\_

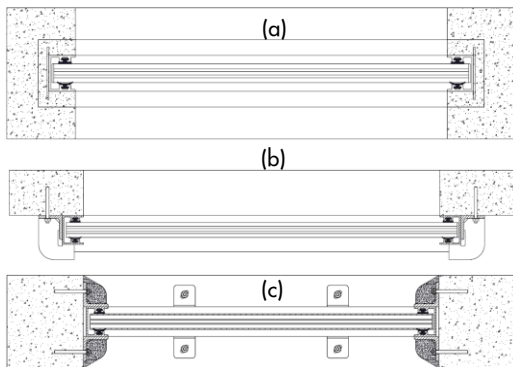
Note that the logs are made of extruded aluminum profiles. ORBINOX range includes a total of 4 log types, which have different heights and pressure ratings (Refer to the catalogue). ORBINOX will choose the most appropriate log type for each application.

Max. Seating Water Head (mWC): \_\_\_\_\_

Max. Unseating Water Head (mWC): \_\_\_\_\_

**ALUMINUM STOP LOG MOUNTING**

- Embedded in Concrete (a)
- Wall Mounted (b)
- Face Mounted In Existing Channel (c)

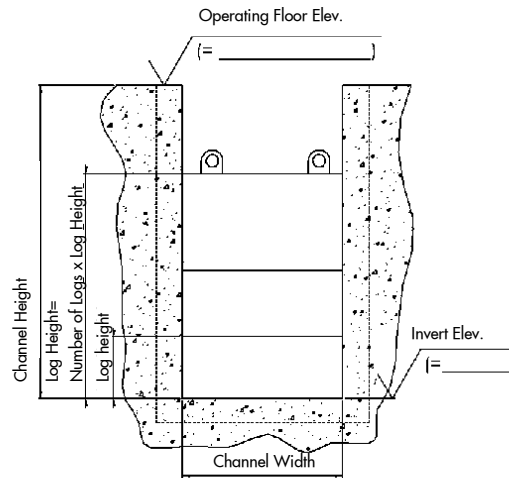


**Frame Invert Mounting:**

- Embedded in Concrete
- Wall Mounted
- Face Mounted In Existing Channel

**LIFTING MECHANISM**

- Hand pole
- Lifting device



**MATERIALS**

- Frame  Aluminum 6063-T6  
 304 SS  
 316 SS
- Log  Aluminum 6063-T6
- Seal  EPDM Other: \_\_\_\_\_

**REMARKS**

Name: \_\_\_\_\_ Signature: \_\_\_\_\_