

# Operating and Maintenance Instructions

IBS flood doors
IBS flood gates











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#### 1 IBS flood doors

# 1.1 FDTS-L/R – Single-leaf flood door on pressure side with threshold

#### 1.1.1 General information

Basically, the system consists of a flood defence door mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

#### 1.1.2 Flood defence door/gate open in idle state

The flood defence door is open in idle state.

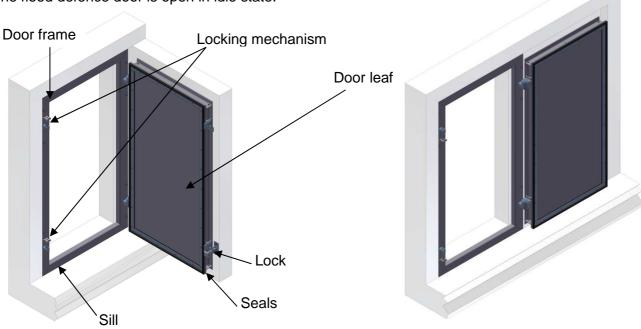
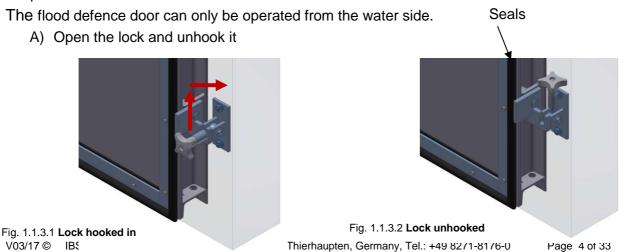


Fig. 1.1.2.1 FDTS-R 90°

Fig. 1.1.2.2 **FDTS-R 180°** 

#### 1.1.3 Operation

In operation: Closed





# B) Close door



Fig. 1.1.3.3 Door closed

# C) Hook in two closure mechanisms

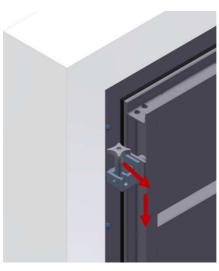


Fig. 1.1.3.4 Closure mechanism

To close the door, bring the two closure mechanisms into horizontal position

- D) Close the closure mechanisms (hand-tight)
- E) Open door

To open the door, proceed by following these Instructions backwards.

# 1.1.4 Flood defence door/gate closed in operation



In operation, the flood defence door is closed and must be locked against unauthorised use.

Fig. 1.1.4 Flood defence door/gate closed and locked



# 1.2 FDTE-L/R – Single-leaf flood door on pressure side without threshold

#### 1.2.1 General information

Basically, the system consists of a flood defence door mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 1.2.2 Flood defence door/gate open in idle state

The flood defence door is open in idle state.

Door frame

Locking mechanism

Door leaf

Lock

Seals

Fig. 1.2.2.1 **FDTE-R 90°** 

Fig. 1.2.2.2 FDTE-R 180°

#### 1.2.3 Operation

In operation: Closed

The flood defence door can only be operated from the water side.

Without sill, level entrance



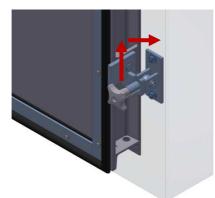


Fig. 1.2.3.1 Lock hooked in

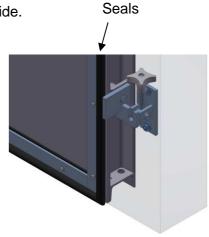


Fig. 1.2.3.2 Lock unhooked



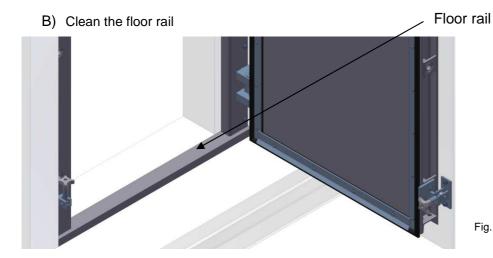


Fig. 1.2.3.3 Floor rail

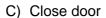
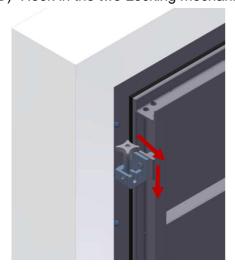




Fig. 1.2.3.4 Door closed

# D) Hook in the two Locking mechanisms



To close the door, bring the two closure mechanisms into horizontal position

Fig. 1.2.3.5 Locking mechanism

E) Close the Locking mechanisms (hand-tight)



F) Lower the door by turning the height adjustment until position B (Fig. 1.2.3.7) is reached

Height adjustment

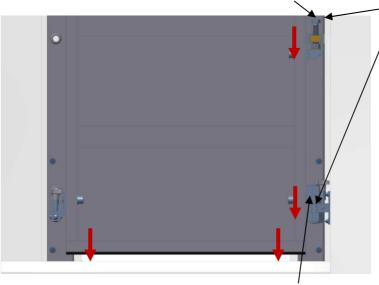


Fig. 1.2.3.6 Lowering the door Position A

Position A

G) Open the door

Instructions backwards.

Fig. 1.2.3.7 Lowering the door Position B To open the door, proceed by following these Position A

1.2.4 Flood defence door closed in operation

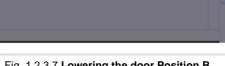


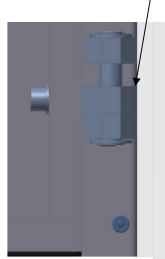
The flood defence door is closed in operation and must be locked against

unauthorised use.

Fig. 1.2.4 Flood defence door/gate closed and locked

Screw the door down using a 3/4" ratchet + reduction to ½" + socket wrench SW36 until the door leaf hinge lies on the lower frame hinge.





Position B



# FDDS-L/R - Single-leaf flood door on pressure side with threshold

#### 1.3.1 General information

Basically, the system consists of a water-side installed flood defence door. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 1.3.2 Flood defence door/gate open in idle state

The flood defence door is open in idle state.

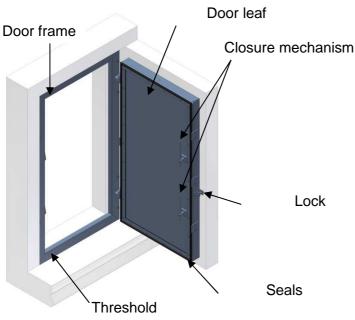




Fig. 1.3.2.1 FDDS-R 90°

Fig. 1.3.2.2 FDDS-R 180°

#### 1.3.3 Operation

In operation: Closed

Seals The flood defence door is operable from both sides. C) Undo screw or open padlock Lock Screw

Fig. 1 Locking with screw

Fig. 1.3.3.2 Lock, optionally with padlock



# D) Close door



Fig. 1.1.3.3 Door closed

# E) Hook in two closure mechanisms



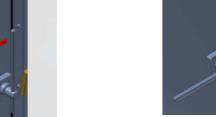


Fig. 1.1.3.4 Locking mechanism

To close the door, bring both closure mechanisms into horizontal position

- F) Close the closure mechanisms (hand-tight)
- G) Open the door

To open the door, proceed by following these instructions backwards.

# 1.3.4 Flood defence door/gate closed in operation



Fig. 1.1.4 Flood defence door/gate closed and locked

The floor door is closed in operation and must be locked against unauthorised use.



# 1.4 FDDE-L/R – Single-leaf flood door on pressure side without threshold

#### 1.4.1 General information

Basically, the system consists of a water-side installed flood defence door. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 1.4.2 Flood defence door/gate open in idle state

The flood defence door is open in idle state.

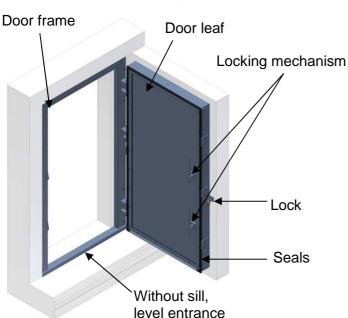




Fig. 1.4.2.1 **FDDE-R 90°** 

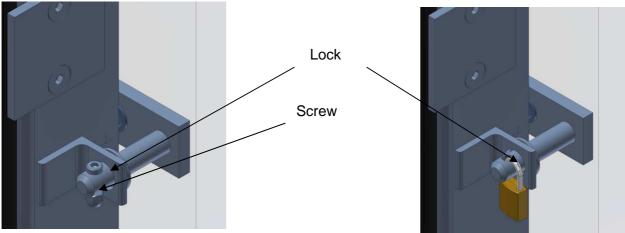
1.4.3 Operation

Fig. 1.4.2.2 **FDDE-R 180°** 

In operation: Closed

The flood defence door is operable from both sides.

A) Undo screw or open padlock



 $Fig.\ 1.4.3.1\ \textbf{Lock\ with\ screw,\ factory\ design}$ 

Fig. 1.4.3.2 Lock, optionally with padlock



# B) Clean the floor rail

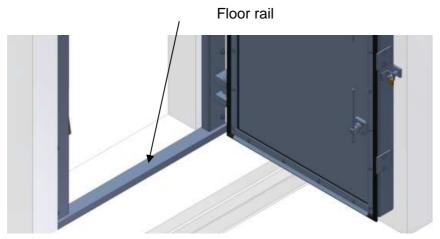


Fig. 1.4.3.3 Clean the floor rail

# C) Close door



# D) Lock gate

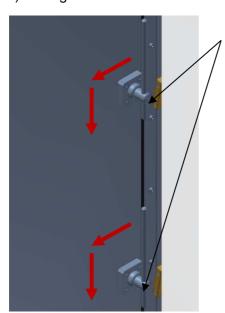


Fig. 1.4.3.5 Lock door

# Closure mechanism

To lock the gate, bring the two closure mechanisms into horizontal position. In operation, the flood defence door is closed and must be locked against unauthorised use (padlock).



F) Lower the door by turning the height adjustment until Position B (Fig. 1.4.3.7) is reached

Height adjustment

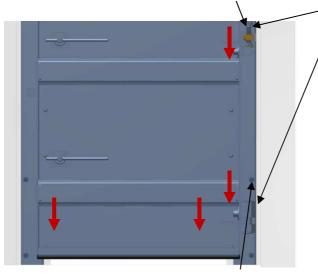


Fig. 1.4.3.6 Lowering the door Position A  $\,$  Position A

Screw the door down using a ¾" ratchet + reduction to ½" + socket wrench SW36 until the door leaf hinge lies on the lower frame hinge. Then locking process D must be repeated (retighten).



Fig. 1.4.3.7 Lowering the door Position B

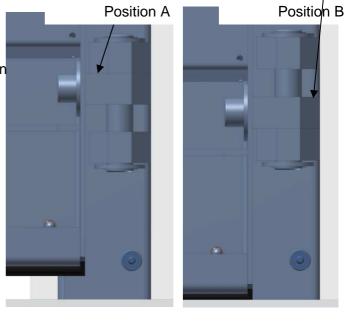
G) Open the doorTo open the door, proceed by following the

Instructions backwards.

1.4.4 Flood defence door/gate closed in operation



Fig. 1.4.4 Flood defence door/gate closed and locked



The flood defence door is closed in operation and must be locked against unauthorised use.



# 2 IBS Flood gates

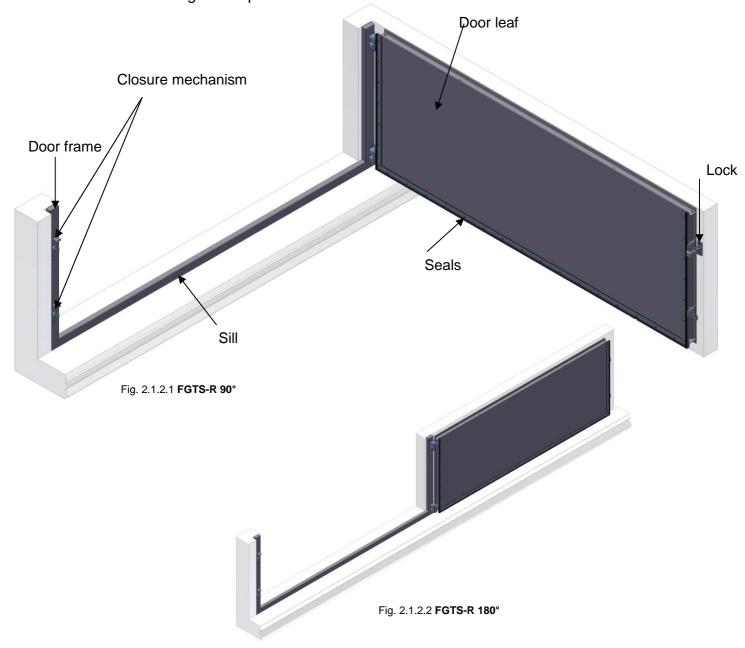
#### 2.1 FGTS-L/R – Single-leaf flood gate on pressure side without threshold

#### 2.1.1 General information

Basically, the system consists of a flood defence gate mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 2.1.2 Flood defence door/gate open in idle state

The flood defence gate is open in idle state.





Seals

#### 2.1.3 Operation

In operation: Closed

The flood defence door can only be operated from the water side.

A) Open lock and unhook



Fig. 2.1.3.1 Lock hooked in

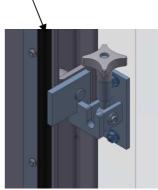
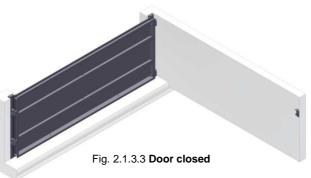


Fig. 2.1.3.2 Lock unhooked

B) Close door

C) Hook in two closure mechanisms



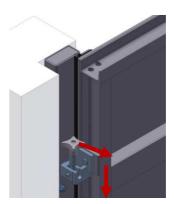


Fig. 2.1.3.4 Closure mechanism

To lock the door, bring the two closure mechanisms into horizontal position.

- D) Close the closure mechanisms (hand-tight)
- E) Open door

To open the door, proceed by following the instructions backwards.

#### 2.1.4 Flood defence door/gate closed in operation



Fig. 2.1.4 Flood defence door/gate closed and locked

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2.2 FGTE-L/R – Single-leaf flood gate on pressure side without threshold

In planning

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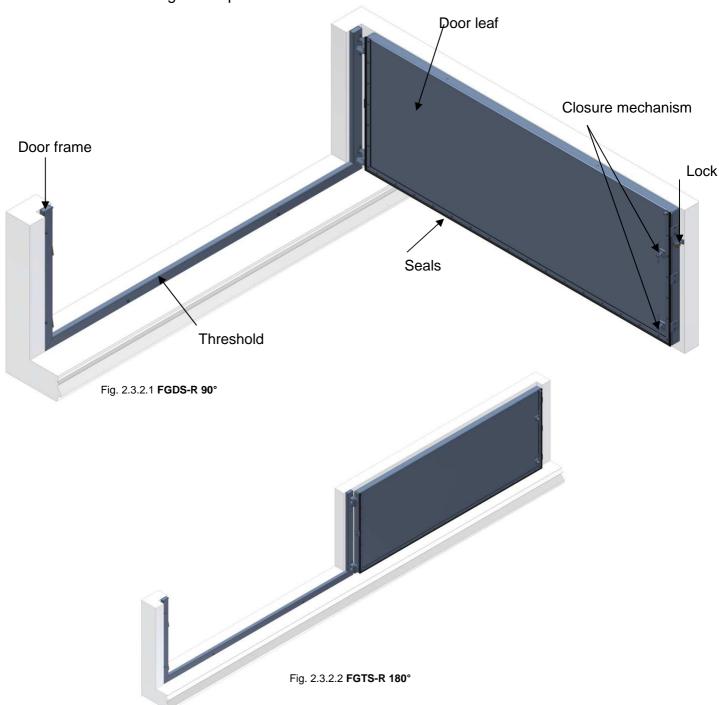
# 2.3 FGDS-L/R – Single-leaf flood gate on pressure side with threshold

#### 2.3.1 General information

Basically, the system consists of a flood defence gate mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 2.3.2 Flood defence door/gate open in idle state

The flood defence gate is open in idle state.





# 2.3.3 Operation

In operation: Closed

The flood defence door can be operated from both sides.

A) Undo screw or open padlock

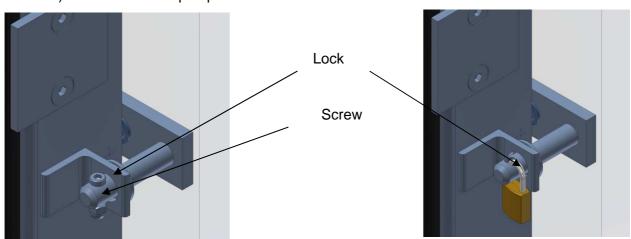


Fig. 2.3.3.1 Lock with screw, factory design

Fig. 2.3.3.2 Lock, optionally with padlock

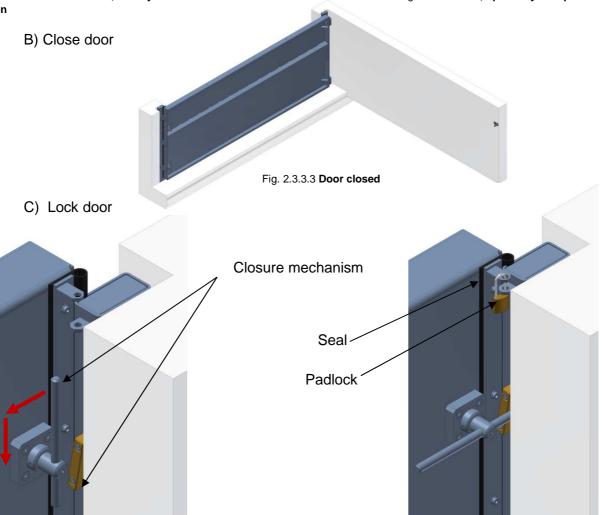


Fig. 2.3.3.4 Lock door

Fig. 2.5.3.5 Lock door

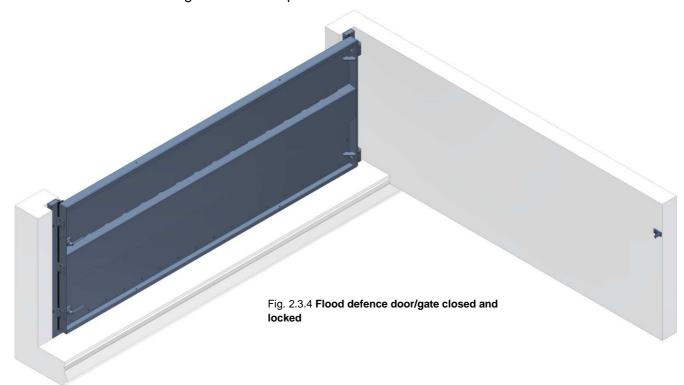


To lock the gate, bring the two closure mechanisms into horizontal position. In operation, the flood defence door is closed and must be locked against unauthorised use (padlock).

# E) Open door

To open the door, proceed by following the Instructions backwards.

# 2.3.4 Flood defence door/gate closed in operation





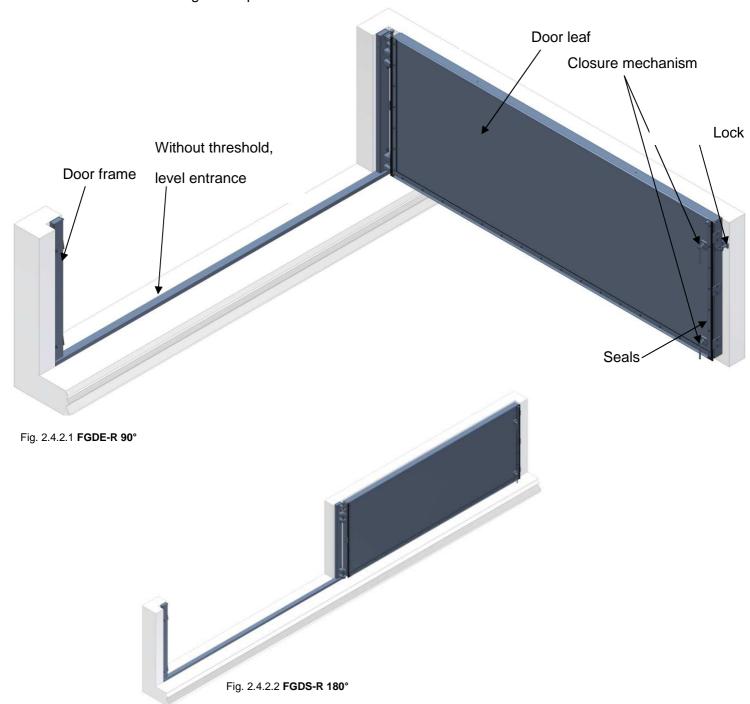
# 2.4 FGDE-L/R – Single-leaf flood gate on pressure side without threshold

#### 2.4.1 General information

Basically, the system consists of a flood defence gate mounted water side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 2.4.2 Flood defence door/gate open in idle state

The flood defence gate is open in idle state.





# 2.4.3 Operation

In operation: Closed

The flood gate is operable on both sides to 1.5m.

A) Undo screw or open padlock

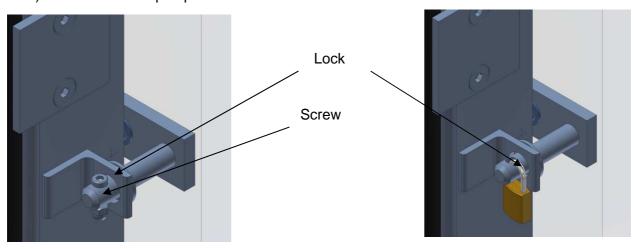
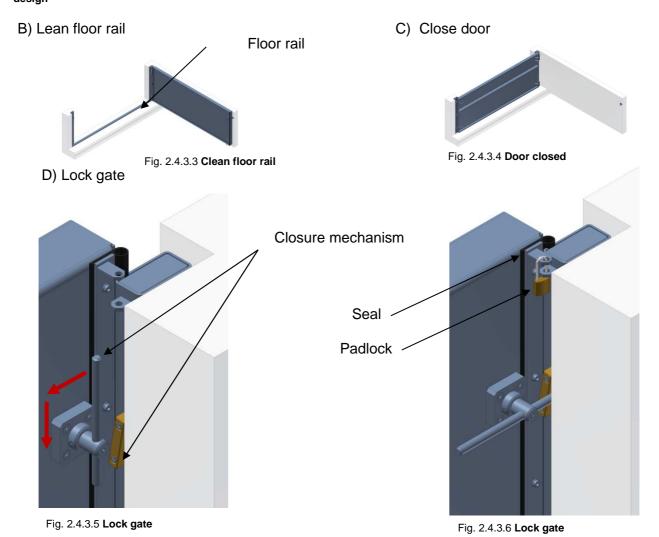


Fig. 2.4.3.1 Lock with screw factory design

Fig. 2.4.3.2 Lock, optionally with padlock

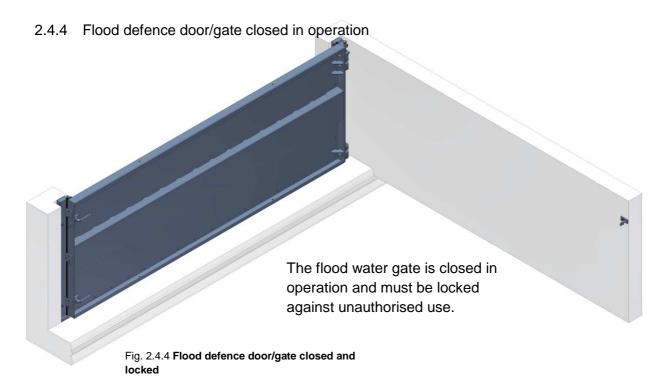




To lock the gate, bring the two closure mechanisms into horizontal position.

E) Lower the gate by turning the height adjustment until position B (Fig. 2.4.3.8) is reached Screw the door down using a 3/4" ratchet + reduction to ½" + socket wrench SW36 Height adjustment until the door leaf hinge lies on the lower frame hinge. Then locking process D must be repeated (retighten). Height adjustment Height adjustment -Fig. 2.4.3.7 Position A Fig. 2.4.3.8 Position B Position B Position A Frame hinges Door leaf hinges

F) Open gate
To open the gate, proceed by following the instructions backwards.





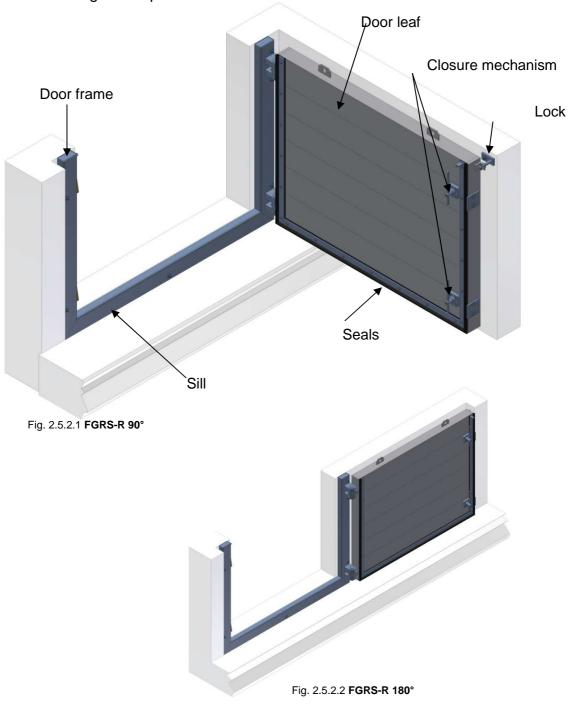
# 2.5 FGRS-L/R-100 – Single-leaf flood gate on pressure side without threshold (Aluminium)

#### 2.5.1 General information

Basically, the system consists of a flood defence gate mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 2.5.2 Flood defence door/gate open in idle state

The flood defence gate is open in idle state.





#### 2.5.3 Operation

In operation: Closed

The flood defence door can be operated from both sides.

A) Undo screw or open padlock

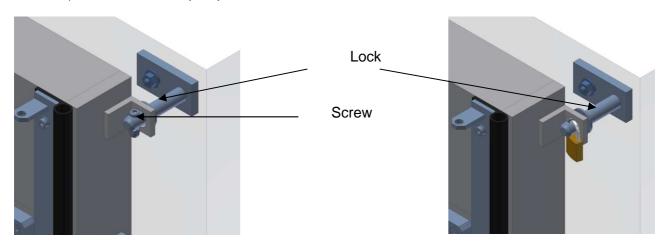


Fig. 2.5.3.1 Lock with screw, factory design

B) Close gate

Fig. 2.5.3.2 Lock, optionally with padlock



Fig. 2.5.3.3 Gate closed

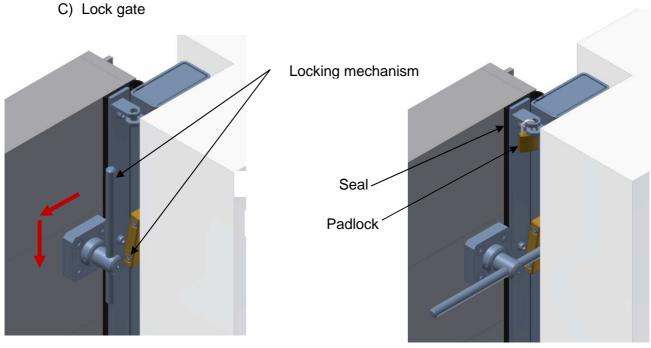


Fig. 2.5.3.5 Lock gate

Fig. 2.5.3.6 Lock gate

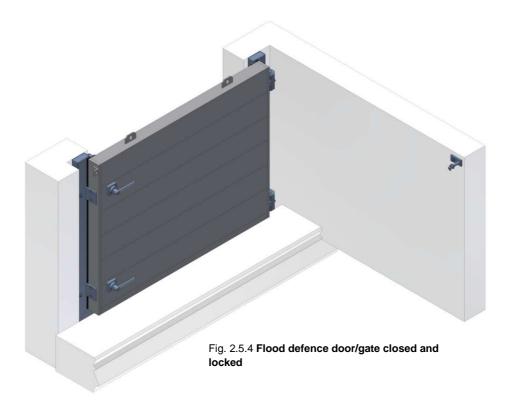


To lock the gate, bring the two closure mechanisms into horizontal position. In operation, the flood defence door is closed and must be locked against unauthorised use (padlock).

# E) Opening the door

To open the door, proceed by following the instructions backwards.

# 2.5.4 Flood defence door/gate closed in operation





# 2.6 FGRE-L/R-100 – Single-leaf flood gate on pressure side without threshold (Aluminium)

#### 2.6.1 General information

Basically, the system consists of a flood defence gate mounted water-side. The system is available in 4 designs, with an opening angle of 90° right/left and with an opening angle of 180° right/left.

# 2.6.2 Flood defence door/gate open in idle state

The flood defence gate is open in idle state.

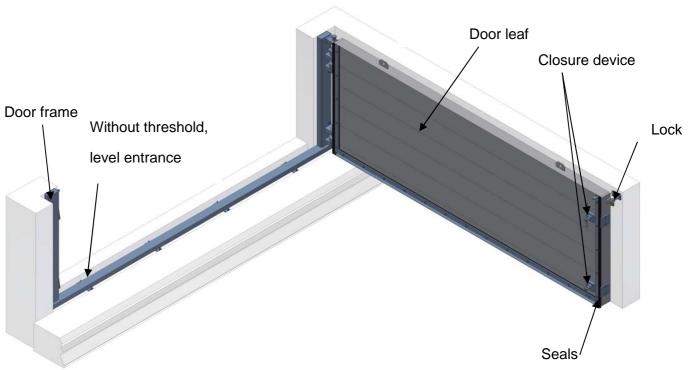


Fig. 2.6.2.2 FGRS-R 180°



#### 2.6.3 Operation

In operation: Closed

The flood defence door is operable on both sides.

A) Undo screw or open padlock

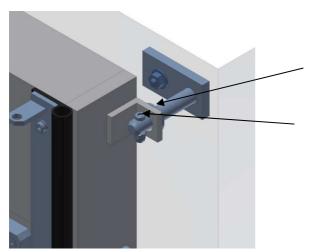


Fig. 2.6.3.1 Locking with screw, factory design

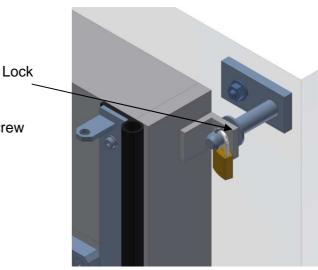
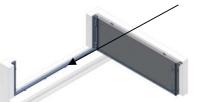


Fig. 2.6.3.2 Locking, optionally with padlock

# B) Cleaning the floor rail



Floor rail

Screw



C) Closing the gate



Fig. 2.6.3.4 Gate closed

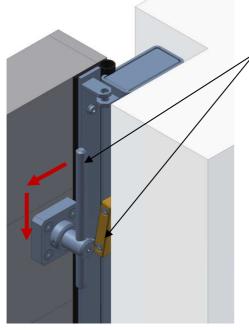


Fig. 2.6.3.5 Locking the gate

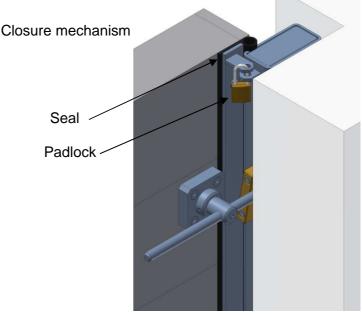


Fig. 2.6.3.6 Locking the gate



To lock the gate, bring the two closure mechanisms into horizontal position. In operation, the flood defence door is closed and must be locked against unauthorised use (padlock).

E) Lower the gate by turning the height adjustment until Position B (Fig. 2.4.3.8) is reached Screw the door down using a 3/4" ratchet + reduction to ½" + socket wrench SW36 Height adjustment until the door leaf hinge lies on the lower frame hinge. Then locking process D must be repeated (retighten). Height adjustment Height adjustment Fig. 2.6.3.7 Position A Fig. 2.6.3.8 Position B Position B Position A Frame hinges Door leaf hinges

F) Opening the gate

To open the gate, proceed by following these instructions backwards.

# 2.6.4 Flood defence door/gate closed in operation

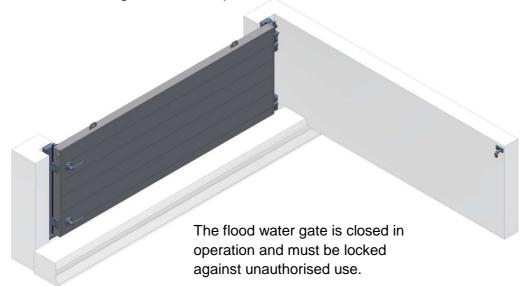


Fig. 2.6.4 Flood defence door/gate closed and locked



# Safety provisions

The following points must be observed during operation:

- Operation must only be carried out by people who are familiar with this documentation. Regular training on the professional operation of the system must be conducted.
- For operation, the applicable accident prevention regulations and safety provisions must be observed.
- Maintenance of the workplace regulations customary in the respective country (in particular for assembly work)
- Keep trained personnel to hand for monitoring of the work processes and the accident prevention/safety provisions
- All further provisions customary in the respective country (transportation safety, fall safety, traffic safety etc.) must be taken into consideration



# 4 Maintenance and repairs

Damaged components or components, the function of which is not guaranteed, must no longer be used and must be withdrawn from use. They must not be used again until they have been professionally serviced.

# 4.1 Cleaning after application

Clean components of contamination (hose with pressurised water - cold, etc.)

- 4.2 Inspection on an annual basis or after operation
- 4.2.1 Inspection of door frame
  - Check the bearings and hinges for damage and replace if applicable.
  - Check the corrosion protection and remove traces of corrosion if applicable.
  - Check the sealing joints to the wall for damage and replace if applicable.
  - Visual inspection of the components for crack formation and damage; if applicable, contact the manufacturer

#### 4.2.2 Inspection of door leaf

- Check closure function
- Treat EPDM seals with IBS care products; check for condition and replace if applicable
- Check corrosion protection and remove traces of corrosion if applicable.
- Inspect joints, pivot bearings (the main pivot bearing is maintenancefree) for mobility and grease if applicable.
- Visual inspection of the components for cracks and damage; if applicable, contact the manufacturer



#### 5 **Closing remarks**

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# **IBS** Operating and **Maintenance** Instructions

IBS flood doors / IBS flood gates



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