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1 General

1.1 Safety

Prior to any work or start-up and in order to ensure a proper functioning of our products, the instruction manual for installation and operation must be read. Alterations on the products need our written approval. For consequential damages due to neglect of this direction, any liability will be rejected.



This symbol marks safety and risk advice. Follow all such advice in order to prevent any damages to human life and objects.

The installation must be carried out according to established procedures and only by qualified personnel.

Project related data of valves, e.g. dimensions, materials and service range are found in the respective documentation.

1.2 Designated service

Wey Flap Valves are frameless valves for channel, pits and basin installations. They avoid unwanted backflow of water and wastewater in case of water column increase (overflow). The technical application limits referred to in the relevant project data documentation and this maintenance manual must be observed.

2 Transportation, Storage

2.1 Transportation

The transportation of Water Control Gates shall take place in a careful way. Lifting devices shall not be hooked onto stems nor other actuating components. Water control Gates shall be placed on even surface only, never tilted onto an edge, to prevent distortion of the frame. The equipment shall be protected against exterior damage and atmospheric exposure.

2.2 Storage

Until final installation the equipment shall be stored in a dry, vented area. All function relevant parts shall be suitably covered against humidity, dust or other contamination.

3 Installation

Wey Flap Valves are available in a broad range of executions.

- Round design
- Square design
- With or without counter weight
- For mounting with angle frame
- For embedding into construction



Fig. 1



Fig. 2

3.1 Preparation before installation

Onsite construction work details, recesses, walls, etc. shall be checked for accuracy, flatness, finish, etc. before starting with mounting the equipment. Dimensions of any recesses have to comply with manufacturer's drawings and shall be checked acc. Fig. 1 and Fig. 2.

The walls shall be checked with plumb and level for its perpendicular (fixation of frame) as well as its horizontal and vertical flatness.

Unacceptable deviations must be corrected on site prior to mounting, as follows:

- a) by grinding, removal, equalizing of uneven surface;
- b) by applying concrete filler according to requirements (tightness, strength).

3.2 Mounting aids

In order to offset construction discrepancies, plastic or stainless steel shims or spacer plates in various thickness may be used to level and position the fixing frame. Minor discrepancies can be compensated that way. The frame gets therewith enough wall support that it cannot be distorted when tightening the fixing bolts.

Major discrepancies must be compensated with threaded rods of suitable size if assigned bolts are too short (bad concrete quality, anchor hole too long or if many spacer plates had to be used). Cut to size threaded rods must be inserted and tightened with 2 nuts. After tightening the counter nuts must be removed and the threaded rod can be used in replacement of a short bolt.

To seal between frame and wall, paste type, medium resistant sealants are most suitable.

If filler or sealant is used, observe manufacturer's instructions with priority.

3.3 Flap Valve with angle frame

For best sealing between wall and frame, the wall construction must be dry.

Procedure:

- Position Flap Valve in the respective place and align with plumb level. The drive shaft on the Flap Valve center of rotation has to be completely leveled (Fig. 3).
- Depending on the size of the Flap Valve, 1-2 dowels per side should be set to fix frame temporarily with bolts.
- Check alignment with plumb level. Readjust position of the Flap Valve, if necessary.

Lowest Flap Valve point must comply with finished floor level according to site plan. For Flap Valves with counter weight, the counter weight must have sufficient space to swing freely.

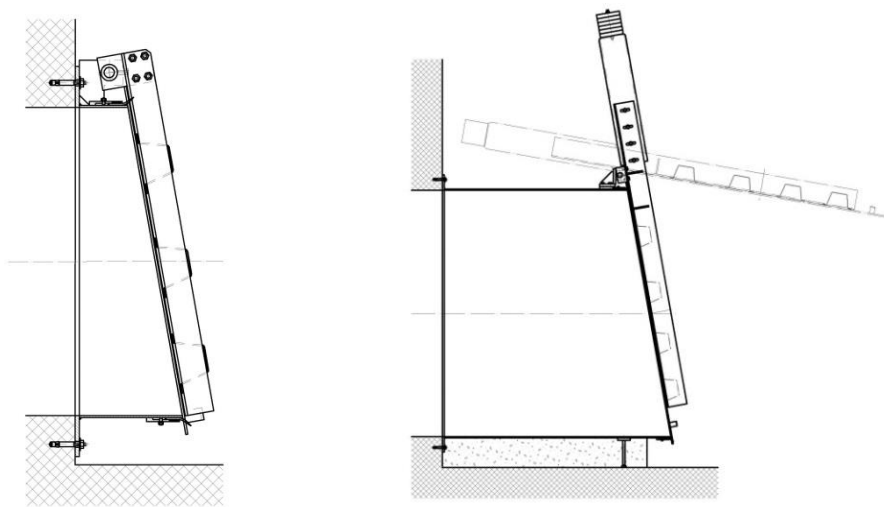


Fig. 3

- Drill and set remaining dowels.
- Prior to final fixation, pull frame slightly away from the wall in order to place two rows of sealant (according supplier's instructions) behind the frame (Fig. 4).
- All bolts can then be firmly tightened with the **torque key**, according to the product/**supplier's specification**.

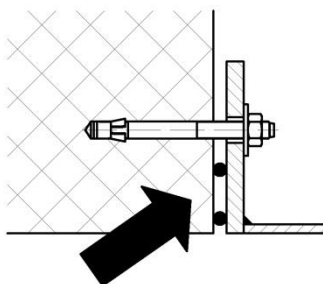


Fig. 4

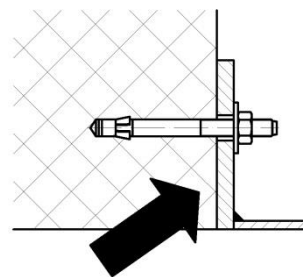


Fig. 5

- When tightening the bolts, the sealant gets squeezed out on both sides of the frame. Smoothen sealant with finger to a clean grout (Fig. 5).

3.4 Flap Valve with anchor bolts for embedding

Depending on size and mounting situation, we recommend embedding the Flap Valve entirely or partially.

Procedure:

- Mount the Flap Valve as described in paragr. 3.3. All types are equipped with the respective fixation aids.
- Align, level and fixate heavy Flap Valves with respective leveling screws (Fig.6).
Lowest Flap Valve point must comply with finished floor level according to site plan...
- Embed the Flap Valve according to site plan. Keep clear the sealing fixations to assure maintenance such as replacement at a later stage.

When filling these recesses **never use any vibrators!**

The Flap Valve shall be free of any concrete or other contamination.

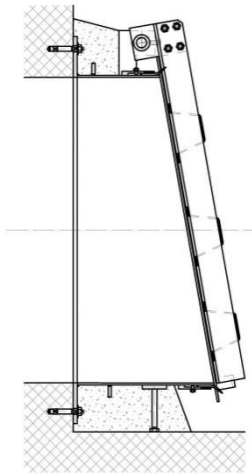


Fig. 6

4 Commissioning

4.1 General measures

Before taking the Flap Valve into service, all function relevant parts shall be thoroughly cleaned.

4.2 Function test

Before commissioning a function test must be performed.

Check flap for ease of operation (at reasonable forces).

Flap Valves with counter weight must move easily, but shall return to close position only by means of own weight and without additional help.

For embedded Flap Valves a function test shall not take place before grout compound is dry and capable of bearing the structure.



Flap Valves open immediately in case of water knockout. No person must be in flap opening area. Also counter weight area must be kept clear at any time, since person standing in this area may get jammed.

5 Maintenance

5.1 Operating cycles

In case Flap Valves are used only little, we recommend moving them from time to time. Constant closing position may reduce ease of operation (opening).

5.2 Cleaning / Lubrication

Sealing shall be free of dirt and contaminations. The Flap must not be charged with additional weight or blocked with objects.

The elastomer seal shall be lubricated to avoid sticking tendency of the flap and seal after longer shutdown periods.

Water-repellent, temperature resistant and long lasting lubricants shall be used (get recommendations from your supplier).

6 Removal

Flap Valve frames will normally not be removed. They remain fixed to the wall construction for service life.

7 Disposal

Be aware that sediments or contaminations as well as lubricants, cleansers etc. which may adhere to the equipment or pipe could be harmful to people and environment. Respective precaution measures are to be taken.

After finished service life, the valve must be disposed skillful and in conformity with environmental regulations.

8 Final remarks

All information presented are to the best of our knowledge and shall provide, in combination with our technical documentation, information about our products and their range of applications.

They are not thought to assure particular features of the products nor their suitability for a specific service.

Faultless quality is assured within our General Terms and Conditions of Sale and Supply (GTSS).

For any further information, call on our Customer Service Department at any time.

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