



Installation instructions for valves in acc. w. DIN 19569 Part 4

Congratulations on your choice of valves

ABS valves Made in Germany

1. Checked the valve for **transport damage** and notify without delay. Stainless steel valves must be protected against rust film and contact rust. Only stainless tools may be used on stainless steel valves!
2. The valve may only be fixed to a flat wall, max. 2 mm surface irregularities. If this is not the case, you can compensate irregularities of up to 15 mm using ESCUTAN (see Item 4). To do this, apply the sealing compound to the valve frames at sufficient thickness and then preload the valve to the structure without warping. The fixings can be tightened once the sealing compound has solidified completely. If there is major unevenness you should request your clients to rework the surface. As soon as you drill the first drill hole you have accepted the structure (installation surface) and are responsible for all following works. If there are any cracks or gaps they must be professionally and permanently sealed off before installation. If installation surfaces are coated, please call us for clarification before commencing installation since we cannot otherwise provide a guarantee. Before drilling the drill holes you should note that you may only use the chemical bonding anchors in primary concrete. If the walls have been plastered, the anchor drill holes must have their full target depth in primary concrete.
3. **Casting** of valves may only be carried out by qualified specialist personnel. Suitable spreaders must be used to retain the shape of the valve frame before casting. After casting the stainless steel surfaces must be cleaned of any remaining casting material, otherwise the seal will be damaged.
4. Glue the enclosed **structural sealing tape** to the rear side of the grease-free and dry valve frame. The ends of the sealing tape must crossover and should be placed as close as possible to the anchor claws welded to the side in the upper section. Furthermore, small lengths of residual material should be glued underneath the anchor claws positioned to the outside in order to prevent twisting of the anchor claws and therefore the frame.
Alternative structural sealing with high water heads
If there are **high heads of water to the rear**, ESCUTAN must be used as a structural seal between the concrete structure (min. C20/25) and the rear of the valve.
The rear of the valve (frame back) made of stainless steel must be cleaned until it is **free of grease** and an **elastomer primer Type 220** must be applied across the entire surface with a brush. Further work may only be carried out when all compounds are completely dry.
The concrete surface for the circumferential frame back to which the ESCUTAN is to be applied must be cleaned until it is **free of grease**. After this, the concrete surface is to have elastomer primer Type 110 applied to the entire surface. Further work may only be carried out when all compounds are completely dry.
ESCUTAN consists of a basic component approx. 1.79 litres (71.6%) and 0.71 litres of a hardening component (28.4%), and a 2.5 litre barrel is produced when both are mixed together. ESCUTAN is either applied with a cartridge or a spatula at thicknesses of between 10 mm and maximum 20 mm depending on the surface irregularity of the structure. After this, the valve frame is placed on the surface without hollows and then dowelled.
5. Locate the valve frame opening over the structural opening and ensure that the guide profile for the valve slider is aligned precisely vertically. If it is possible to reach all the fixing drill holes without removing the slider plate for reasons of the construction type, the slider plate must remain in the valve frames during assembly or casting in the valve frames in order to prevent deformation of the frame.
6. Completely position the **anchor drill holes** provided in the valve frames vertically in the centre towards the outside (otherwise central buckling of the valve frame will occur). Now clean the **drill holes** of drilling dust and insert the anchors according to the anchor manufacturer's instructions. They can only be tensioned after complete hardening! Only approved dowels may be used!
7. Clean the valve frame and valve slide of drilling dust and other soiling.

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8. In the case of valves with heads of water above 3 metres, it is necessary to close off the **structural sealing gap** in the nominal width between the structure at wall and the slider frame back using a product called Klebt & Dichtet.
9. Place the valve slider in the valve frame.
10. Clean the **spindle** and coat with organic grease in acc. w. DIN51502/KPE2K-30 (temperature-resistant between -30 and 120°C) or equivalent. Greases which harden or have a high viscosity cannot be used because they will lead to torque faults.
You can see whether a spindle has a left-hand or right-hand thread by looking at the trapezoidal threads. When the spindle is vertical, the device is a "left-hand thread" if the thread is running from "bottom right" to "left rising", it is then screwed into the spindle thread in anticlockwise direction assuming that the spindle plus nut thread runouts are straight.
11. Dowel the **main bearing (axial bearing) with wall bracket and spindle** in place, plumb in accordance with the installation drawing. You can find the correct main bearing position: when the valve slider is in the closed position and the spindle has been turned into the spindle extension tube nut so far that the distance between spindle nut and its top stop is the same as the valve lift height.
12. The **intermediate brackets** which may be supplied are pre-fitted to their intended spacing of 70 mm. If the structure is uneven the intermediate brackets on the adjusting screws can be readjusted in order to ensure that the pipe extension is fitted plumb. The marking for the intermediate bracket position (related to the slider opened position) is marked on the spindle extension tube with a sticker, or can be taken from the installation drawing.
13. Carry out a **function test** on the valve by running the valve slide completely open and then closed. It is important to water the seal beforehand. Please check the spindle nut which must be completely filled with the spindle thread in all states.
14. In the case of **wedge closing valves**, the counternut on the stud bolt must be loosened. The slider plate must be at least 10 mm above the bottom of the frame. After this, the stud bolt is screwed down to the wedge surface. Now retighten the counternut. If there is still leakage, please tighten the stud bolt a further half turn as described above. In order to achieve parity wedging, all stud bolts should be tightened using the same torque.
15. The seal pressure can be adjusted on **control valves**. Use the nuts which protrude from the slide rail - these must be tightened uniformly.
16. In the case of **lowering valves** the valve slider stop is fitted plumb with the spindle so that the base of the valve frame is at the same height as the top edge of the valve slider.
17. **ABS position indicators** are fitted to the free spindle shaft end.
The hollow shaft on the position indicator is fitted with a set screw with which the position of the spindle can be fixed on the side. When the slider is in the required position, the appropriate value on the position indicator must be set by twisting the hollow shaft. Please ensure that the twisting notches on the underside of the position indicator engage during fixing. After this, the position indicator is secured by tightening the set screw.
18. Storage and adjustment of the electric drives is carried out in accordance with the electric drive manufacturer's instructions. Setting up and attachment of an electric drive may be carried out by specialist companies. All valves except lowering valves, overflow weirs, distributor tongues, telescopic slide gates (Mönch) and backwater flaps are set up for **torque switching for closing**, otherwise using **limit switching**. The "Closing" limit switch required for this purpose is placed approximately 3-5 revolutions beforehand. If you do not know the **torques** required for "Closing" and "Opening", please proceed as follows: Set the smallest torque for **closing** and approximately **30%** higher torque for **opening**. If the torque for closing the valve is now insufficient, increase it in 10 Nm stages until the valve closes and seals. After this, set the opening torque 30% higher than the torque you have just set for closing.
19. Any **outside influences**, for example grinding caused by flying sparks and heated, burning-in embers, steel screws, steel scaffolding whose rusting rainwater flows onto the valve, must be categorically avoided.
20. We explicitly exclude any **warranty claims** caused by damage or non-functioning which is caused by nonobservance of these assembly instructions.
21. Please don't forget to **dispose** of the transport and packaging units in an environmentally-friendly manner.

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