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AQUASTAR *mp6*
pos

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USER MANUAL

AQUASTAR *mp6* *pos*

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1 Copyrights

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Knowledge of the instructions contained in this operation manual is indispensable for preventing failure and ensuring faultless operation of the Aquastar. Therefore, it is essential, that the person in charge of operating the equipment is familiar with the present documentation.

2 Introduction to operation manual

This operation manual is intended to facilitate familiarization with the Aquastar and utilization of the same for the intended purpose.

This operation manual contains important information for safe, proper and economical operation of the Aquastar. Compliance with these instructions will contribute to

- preventing danger
- reducing repair costs and equipment failure, and
- increasing the liability and service life of the Aquastar

This operation manual supplements the instructions provided by existing accident prevention and environmental protection regulations. It must be available at the place of utilization of the equipment at any time and must be read by each person intending to use the Aquastar. This means

- operation, including
- correction measures in case of faulty operation and
- maintenance

In addition to the operation manual and the compulsory accident prevention regulations applicable at the place of utilization of the equipment, the generally subject specific technical rules must be taken into account.

3 Warranty and liability

Warranty and liability claims in the context of damage to person or property shall be excluded where such damage results from one or several of the causes listed below:

- Improper use of the Aquastar
- Improper installation, putting into operation, operation and maintenance of the Aquastar
- Operation of the Aquastar with defective or improper safety devices
- Non-compliance with the instructions contained in the operation manual for installation, putting into operation, operation and maintenance of the Aquastar
- Unauthorized modification of the Aquastar
- Insufficient monitoring of components subject to wear and tear
- Inadequately performed repair of the Aquastar
- Damage of the Aquastar resulting from foreign matter or Force Majeure

Before commissioning, all gaskets of the device have to be checked, the cable glands and all outside screwings must be retightened. Also leak and function tests have to be carried out. After the pressure test, all nuts and screws of the entire pipe system must be retightened in a depressurized state.

We recommend a maintenance service (testing of functionality and tightness) and careful visual inspection in regular maintenance intervals, whereas with high aggressive media, strong vibrations and significant variations of temperature, the intervals must be shortened. Seals must be considered as wear materials and must be lubricated and/or changed regularly. With unfiltered media we recommend the installation of line strainers.

Enduring damage due to neglect of the operation manual or due to damaging sealed parts lead to a lapse of the warranty. We do not take any liability for resulting damages thereof! Please read the operation manual carefully before starting operation.

4 Instructions for safety at work

- Each person, involved in the user's facility, in the installation, dismantling, putting into operation, operation or maintenance of the Aquastar must have read and understood the entire operation manual and, in particular, the chapter 'Safety Instructions'.
- The instruction and warning signs calling attention to dangers must be taken into account!



Dangerous voltage!
This is for your own safety

5 Safety instructions

- This equipment has been built and examined according to safety precaution for electronic devices and has left the plant in a perfect safety-related condition
- To keep this status and to guarantee a safe operation, the user must observe the safety instructions, which are included in these instructions
- This installation work may only be undertaken by an authorized and licensed installer or electrical business
- This equipment is not intended for it by persons (including children) with reduced physical, sensory or mental abilities or for lack of experience and/or for lack of knowledge to be used it is, it by a person responsible for their security is supervised or received from it instructions, how the equipment is to be used. Children should be supervised, in order to guarantee that they do not play with the equipment.
- The electrical installations must be carried out according to the respective local and regional regulations (e.g. OEVE, VDE,...) and possible official regulations
- the electrical connection must have separating device built into the permanently installed electrical installation, which enables the disconnection of all electrical contacts with a contact space of min. 3 mm from the mains.
- Pay attention that the supply voltage is correctly protected and an earth-leakage circuit breaker ≤ 30 mA is installed.
- Only use the equipment in dry rooms, in which no combustible gasses and vapors are present.
- Do not put the equipment into operation immediately if it has been taken from a cold to a warm area. The thereby developing condensation water could destroy your equipment
- If the equipment has visible damages, does not work anymore or has been stored under adverse conditions for longer periods, then it is to be expected that a safe operation is no more possible. In this case the equipment is to be secured against unintentional start-up and if necessary to be decommissioned.
- Live parts can be uncovered when opening the cover or removing parts. Before an alignment, maintenance, a repair or change of parts or devices, the equipment must be separated from all voltage supplies, if opening the equipment is necessary. If after that an alignment, maintenance or a repair on the opened equipment under voltage is inevitable, it may only be done by experienced, skilled staff, which has knowledge of the associated dangers and/or the relevant regulations.
- Capacitors in the equipment can still be charged, even if the equipment is separated from all voltage supplies.
- Assembly and/or disassembly of the valve only in a pressure-free status (i.e. empty piping beforehand)
- Valve flow and/or direction of flow must be considered.



**Each person involved in the operation and maintenance of the equipment must have read and understood the present operation manual!
It is for your own safety!**

6 Residual Risk

6.1 Hazard generated by current



Manipulation of the Aquastar by operating staff is strictly prohibited and may only be performed by duly authorized staff, qualified for electrical work. Compliance with the corresponding instruction and prohibition signs is required.

6.2 Hazard generated by human error



The operating staff must be instructed in regard to the residual danger resulting from electricity and familiarized with correct operation. Efficiency of the safety training must be verified.

6.3 Hazard generated by current during cleaning work



Cleaning of the Aquastar may only be performed after disconnection from power supply (lever switch).

7 General

PRAHER Aquastar controls are significant technical products, which are manufactured with high accuracy to the most modern technical production methods. Entitled complaints will naturally be rectified as fast as possible if they occur. The equipment has a warranty after valid European law. The warranty begins with the purchase date.



ATTENTION! For relief of the sealing system the valve is shipped on intermediate position and is not sealed! Prior to operation it has to be electrically set to position "Filter"!

8 Directions for use

This is a control unit for a **Praher multiport valve** with 6 positions for fully automatic filter backwashing according to need, i.e. pressure and/or time. Operation of the Aquastar without corresponding valve can cause damage to the electronics.



The Aquastar must never be operated without a Praher V6 valve to avoid damage to the device!

9 Assembly

Device installation – installation of the valve

Install the valve in the conduit according to the labeling and the sketch below. Use adapter unions. Threaded connections should be sealed only with Teflon strip. Although the device is functional in any position, it must not be installed with the actuator facing down.

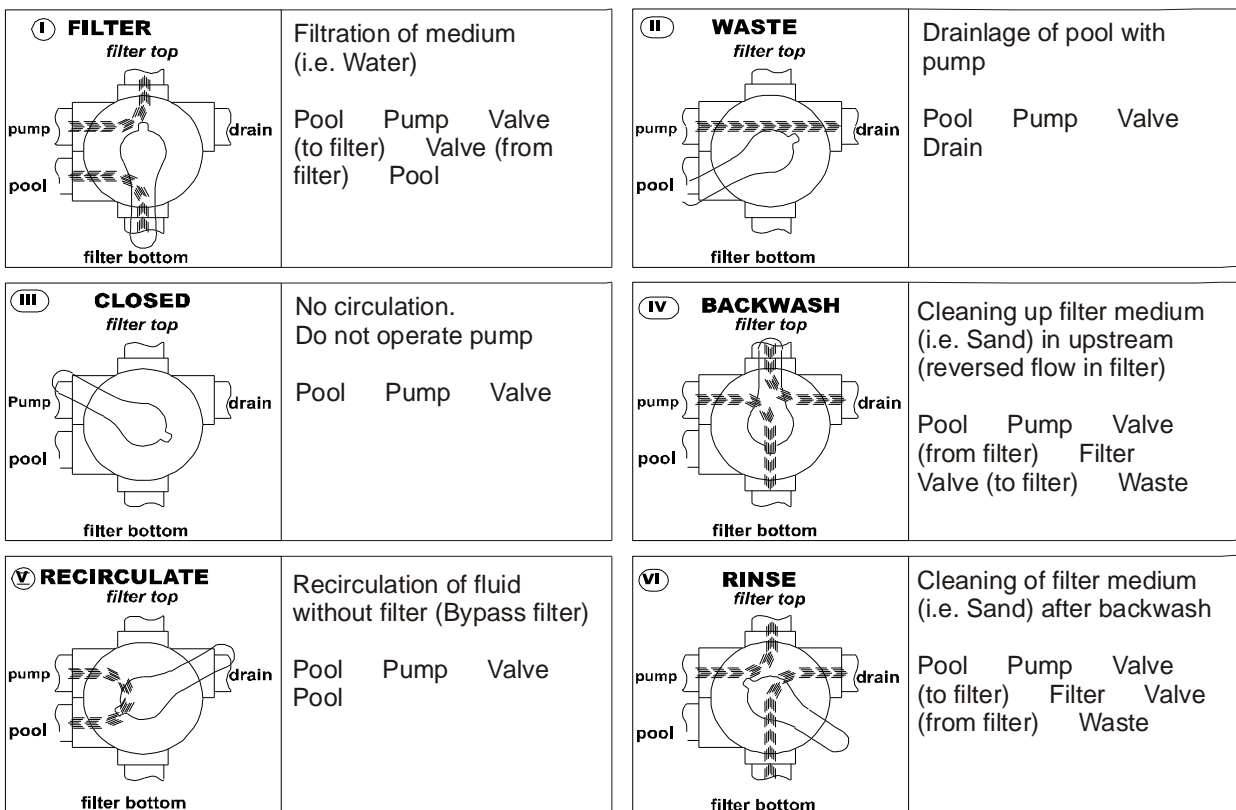
If the difference in level between system and tank exceeds 3 meters, stop valves or non-return valves should be installed to prevent severe damage to the actuator and the valve due to excessive pressure and flow.

As filter medium can be washed out during backwashing and rinsing, we recommend fitting the drain with a throttle. Otherwise a stuck valve disk can adversely affect the flawless functioning of the Aquastar. Polluted or grainy filtering media require the use of adequate pre filters.

Important! During a cycle the filter pump motor must be shut off!

The Praher Aquastar Comfort is approved for 6-way valves by Praher. Malfunctions can occur with any other valve type as we are unable to guarantee that these valves match the dimensions of the Praher 6-way valves.

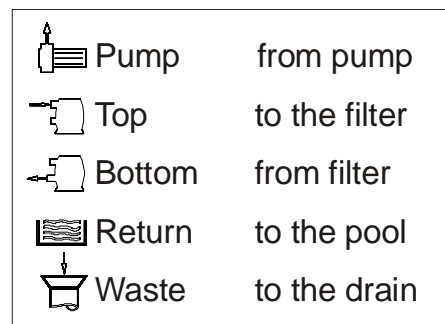
9.1 Function- and installation diagram



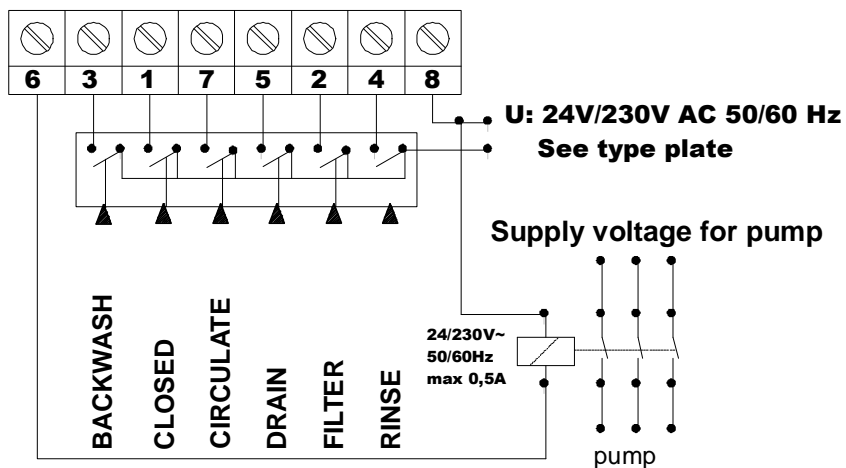
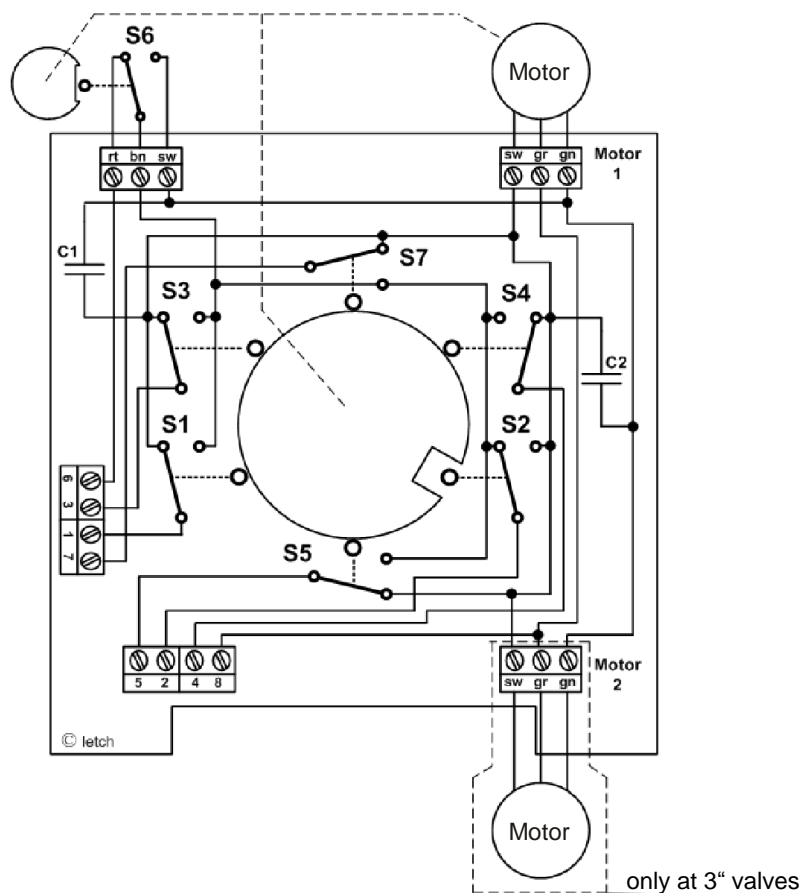
6-way valve type: 1,5", 2" and 3"

Connections: Thread or stick (all connectors open)

Max. Operating pressure: ABS 1,5", 2" and 3" 3,5 bar
 GFK 1,5", 2" 6 bar
 GFK 3" 5 bar



10 Connection diagram



Attention: Only one position can be triggered, for example "FILTER" or "BACKWASH" but not "FILTER" and "BACKWASH" together!

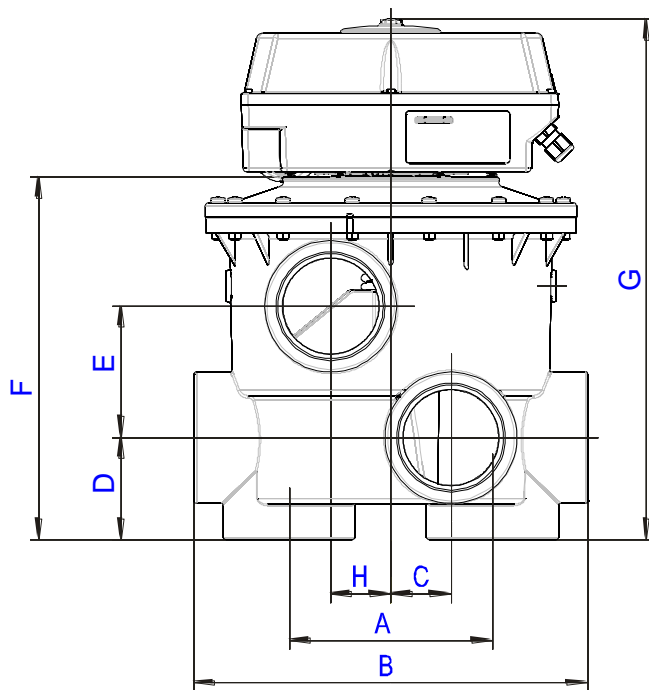
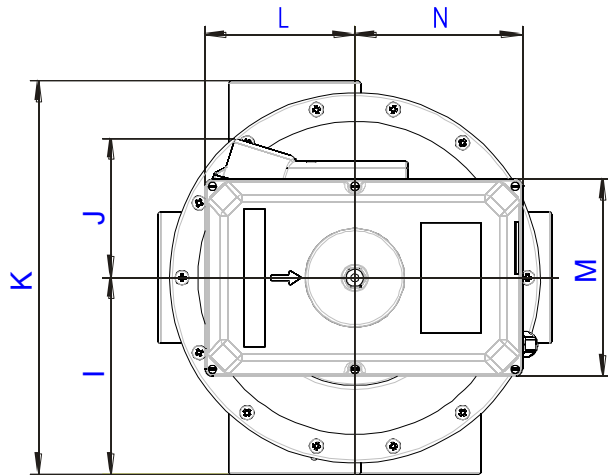
Technical Data:

Operating voltage: 24 / 230 VAC 50 / 60 Hz

Max. operating power during change over: 1 1,5", 2" - 11 VA / 3" - 22 VA

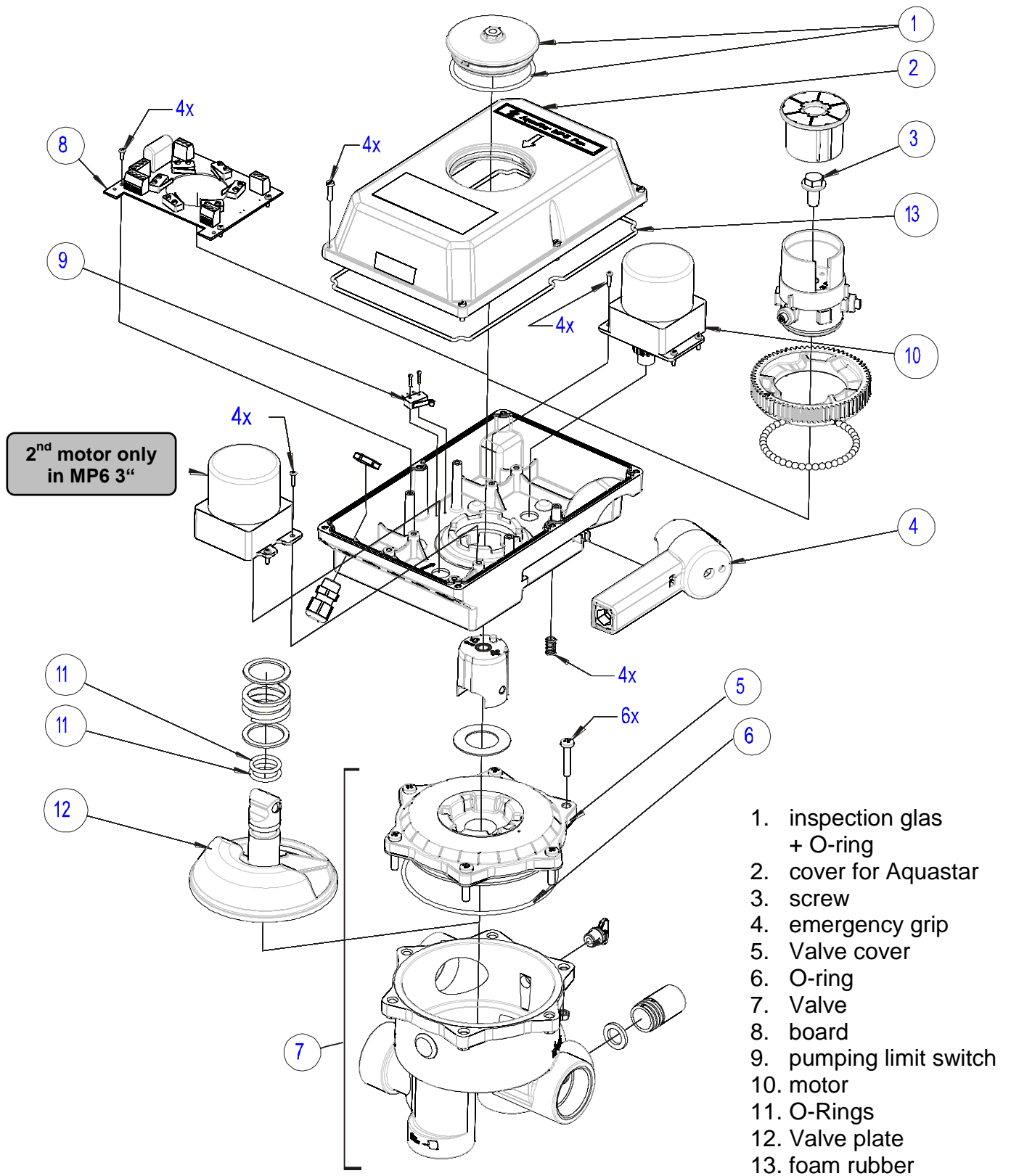
Type of protection: IP 65

11 Dimensions



	1,5 mm	2 mm	3 mm
A	99,5	110	170
B	182	228	330
C	29,5	38	50
D	48	60	85,5
E	61,5	81	110
F	163,5	210	306
G	295	339	436
H	39	36	50
I	87,5	114	165
J	117	117	117
K	175	228	330
L	125	125	125
M	165	165	165
N	140	140	140

12 Exploded view drawing Aquastar MP 230/24V



13 Emergency handle

In case of power loss or control problems:

1. Prior to using the emergency handle disconnect the valve from the power supply. Interrupt the control cables to the valve.
2. Lower the system pressure (switch off pump, close ball valves, mind possible water columns)
3. Use the emergency handle according to the below chart.

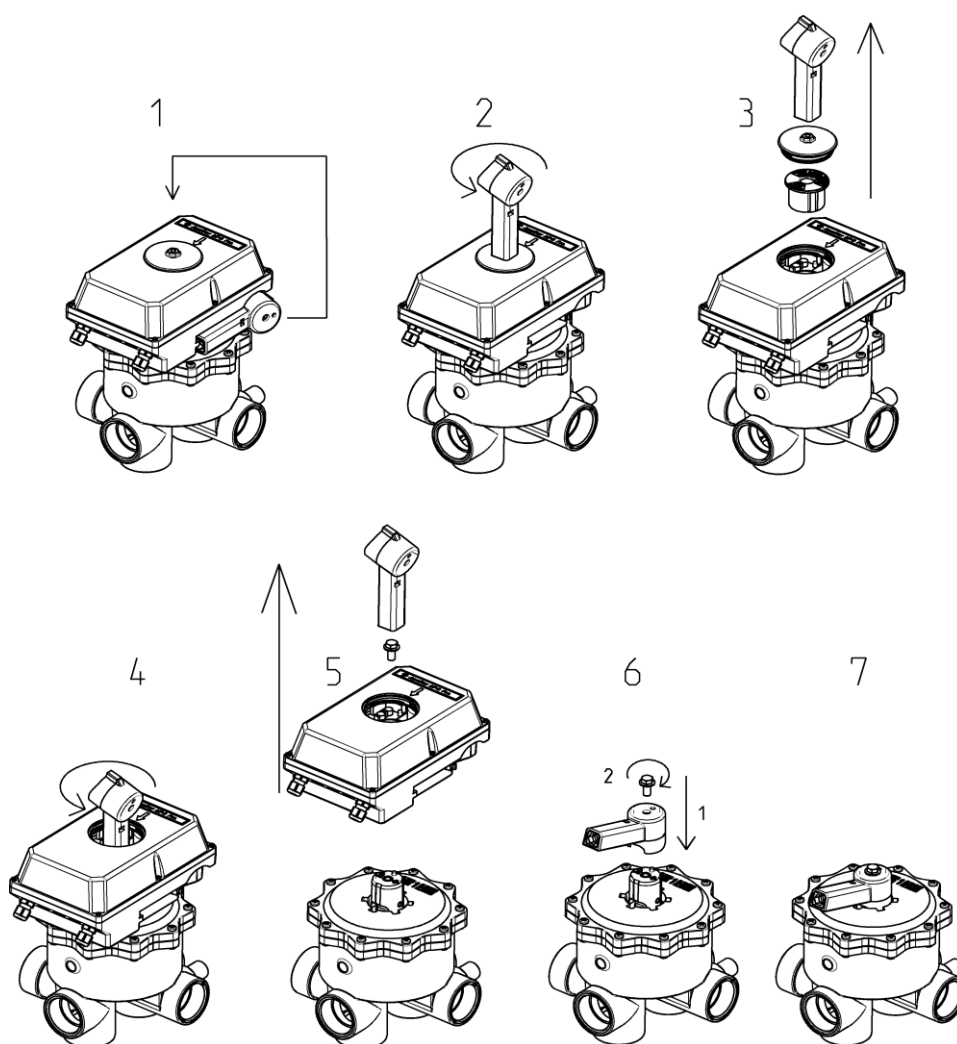


Attention

Lower the system pressure prior to using the emergency handle

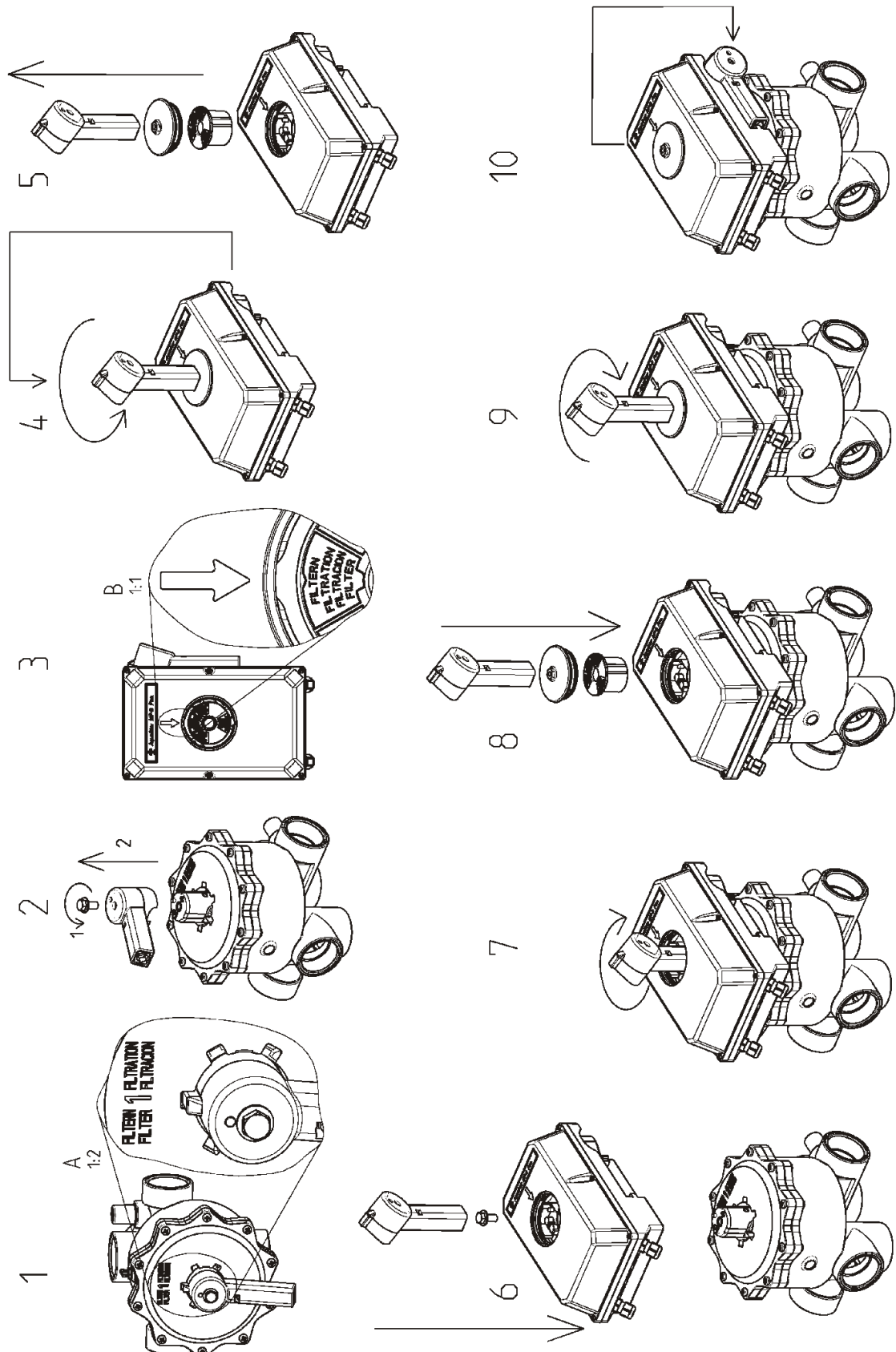
**The emergency handle is not designed to replace the electric drive.
In order to secure proper function of the emergency handle it should
not be used permanently!**

14 Dismantling



15 Installation

Attention: During installation screw tight the centre screw with a minimum torque of 10 Nm (pict 7) to secure the functionality and screw the sight glass hand-tight (4 Nm – 8 Nm) in the lid (pict. 9) in order to secure tightness of the Aquastar mp6



16 Troubleshooting

- **The drive rotates continually without approaching a position**
 - Device was driven without matching valve
 - Please return for repair; damage has already occurred in this case
- **The disk is not lifting freely, or the drive is not running smoothly, or flow noises can be heard**
 - The pump does not switch off on lifting the valve disk
 - The pump must always be switched of before lifting the valve disc
 - The drop from the water surface to the valve is too great
 - Make sure that the total water column does not exceed 3m.
 - The V6 valve is soiled or clogged by foreign matter
 - Clean the valve and use a pre-filter
- **The drive rotates in wrong direction**
 - More than one positions are triggered
 - You have to take care that only one Position is triggered

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