

Instruction Manual



TRANSLATION | OPERATING MANUAL | VERSION 00.01 | RELEASED ON 30.09.2020 | APPROVED | EN | ARTICLENUMBER: 9910-00008-...

IMPRESSUM

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Artikelnummer: 9910-00008

Auflage:

Version | 01.00

Zuletzt aktualisiert | 30.09.2020 | de

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Gerichtsstand: Karlsruhe

USt.IdNr.: DE143078549

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1. INTRODUCTION

All information provided in the instruction manual, refer to the Aquatrainer (container, treadmill unit, control equipment switchboard) WITHOUT water and filtration technology equipment. Since the water and filtration equipment is individually configured for each system, it comes with a separate instruction manual.

1.1 EXPLANATION OF SYMBOLS IN THE INSTRUCTION MANUAL

This instruction manual provides specific safety precautions regarding unavoidable residual risks related to the operation of this system. These residual risks include hazards to:

- Humans and animals
- Product and system
- Environment

The main goal of the safety instructions is to prevent personal injury. The symbols are only intended to draw attention to the safety instructions, not to replace them. Make sure to read and understand all safety instructions in full!



CAUTION

Indicating potential hazards

This symbol indicates potential hazards to humans and animals (risk of injury, risk of fatal injury)



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CAUTION

Indicating potential hazards

This symbol indicates potential hazards to humans and animals (risk of injury, risk of fatal injury)



INFORMATION

This symbol does not indicate a hazard, but draws attention to in depth information about the processes

2. INSPECTION UPON RECEIPT

2.1 TRANSFER OF RISK AND RECEIPT

Please read our general terms and conditions of sales and services (see appendix)

2.2 INSPECTION UPON RECEIPT

Check the packaging for visible damage. Insist that any visible damage be recorded in the shipping company's proof of delivery.

Check the device for hidden damage. If the device was delivered with seemingly undamaged packaging but with hidden damage, immediately contact the shipping company and schedule an assessment.

The manufacturer is not responsible for damage occurring in transit.

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3. WARRANTY CONDITIONS

3.1 GENERAL WARRANTY CONDITION

- The manufacturer offers the buyer of this machine a warranty for a period of 24 months, starting from the date of delivery, on the flawless condition and performance of all fixed parts regarding corrosion, weld seams, container tank, framework construction for the container tank, treadmill unit (without motor, deflection roller, treadmill belt), operator platform, control panel, electrical switchboard with power supply cables to the Aquatrainer, assuming a normal work load. A normal work load is defined as 8 hours of daily operation.
- The manufacturer offers the buyer of this system a warranty for a period of 6 months, starting from the date of delivery, on the flawless condition and performance of all pipework and glueing such as the pipes, connectors, valves, filtration box, filtration case (for sand/char coal not including the content materials), except parts that are expected to wear and tear under a normal work load as filter materials (sand, charcoal, net material etc) .
- The manufacturer offers the buyer of this system a warranty for a period of 6 months, starting from the date of delivery, on the flawless condition and performance of all moving parts such as the drive motor, gears, deflection roller, bearings and other mechanical movable parts, except parts that are expected to wear and tear under a normal work load.
- For the purpose of these warranty conditions, "machine" is defined as described in Section 6 of this instruction manual: container, treadmill equipment, control panel, main switchboard with power supply cables to the machine, electrical standard activation equipment, operator platform, and water connections.
- The warranty extends to the delivered machine and components, excluding the water and filtration equipment, as long as it is operated properly and in a technically correct manner within the scope of intended use. With this warranty, the manufacturer guarantees that the system is free of material and manufacturing defects that would compromise the system's functionality according to the information provided in this instruction manual.
- In case of malfunction or breakdown within the warranty periods as defined in item 1 and 2, the manufacturer will honor the warranty by replacing the machine or parts of it at the manufacturer's own discretion. Those components or parts which have been replaced by new ones shall remain with the manufacturer at no additional cost.
- A system malfunction or breakdown must be reported to the manufacturer in writing, including an exact description of the malfunction and information regarding a competent contact person. Together with this contact person, the manufacturer will analyze the malfunction and decide upon actions to be taken regarding the removal of defects and putting the system back into operation. The manufacturer shall be granted an adequate response time to initiate the removal of defects. If parts by a third party manufacturer installed in the system are involved, the delivery times and response times of the third party manufacturer will determine the time it takes to repair or replace the part.

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- Within the warranty periods as defined in item 1 and 2, the manufacturer honors the warranty by replacing the machine or parts of it at the manufacturer's own discretion. Those components or parts which have been replaced by new ones shall remain with the manufacturer at no additional cost. The manufacturer will bear no follow-up costs.
- The material costs within the warranty periods as defined in item 1 and 2 are borne by the manufacturer; the costs for disassembly/reassembly (core working hours, no overtime) are principally borne by the buyer as long as the work is done by the manufacturer and the required material is supplied by the manufacturer. The buyer shall bear the shipping costs to and from the manufacturer.
- Any and all further claims are explicitly ruled out, including potential damage claims due to consequential damages, financial losses and profit losses, as well as losses due to repair work, as long as there is no gross negligence or intent.

3.2 CAVEAT EMPTOR

The warranty does not extend to:

- damage to or destruction of the system due to force majeure or environmental influences
- damage caused by inappropriate handling, especially damage caused by non-compliance with the operation and maintenance instructions
- damage caused by overuse and permanent system overload (the regular work load of the system is defined as 8 hours per day)
- damage caused by using the system outside the scope of intended use
- damage caused by failure to perform maintenance work at the required intervals
- damage caused by inadequate repair work conducted by non-authorized workshops or other persons
- designated wear and tear parts. See below for an overview of wear and tear parts (Section 11.1).

3.3 EXPIRATION OF WARRANTY

- All warranty claims expire 24 months/6 months (for moving parts, pipework) after the system's date of delivery.
- The repair or replacement of components, as well as all installation work conducted after the expiration of the warranty, are priced according to the most recent version of the price list or according to the respective order conditions. A reduced warranty period of one month applies.

4. SAFETY INSTRUCTIONS AND WARNINGS

4.1 GENERAL SAFETY INSTRUCTIONS

The machine may only be operated by trained and authorized operating personnel.

Make sure that persons working on the machine as a team have clearly defined responsibilities regarding the various operative tasks to avoid confusion and oversights that could compromise operational safety.

This particularly applies to all tasks and activities involving the electrical equipment, which should only be handled by qualified experts.

The safety instructions and operating modes described in the instruction manuals must be observed at all times during start-up, equipping, operation, maintenance, inspection and repair work.

4.2 DUE DILIGENCE OF OPERATOR

The Aquatrainer was designed and developed on the basis of a hazard analysis and a diligent review process of all applicable harmonized norms, as well as other technical specifications. Therefore, the machine combines state of the art technology with the highest possible level of operational safety.

Interfering with the machine in any way other than specified in this instruction manual can be dangerous and is strictly prohibited. The manufacturer accepts no responsibility for personal injury and/or property damage resulting from unauthorized interference.

Structural alterations to the machine require the manufacturer's written consent! Without such consent, the manufacturer shall accept no liability for personal injury, environmental damage or property damage!

All required safety measures must be taken to ensure operational safety in everyday use. The system operator must exercise due diligence in planning these measures and monitoring their implementation.

- the machine is only operated within the scope of intended use (cf. Section 4.3 "Intended Use")
- the system is only operated while fully functional and that the safety features in particular are regularly inspected for full functionality
- all required personal protection equipment for persons involved in the operation, maintenance and repair of the machine is available and worn at all times
- the instruction manual is legible and complete and located at the operating site of the machine
- only specially trained and authorized persons are involved in operating, servicing and repairing the machine
- these persons are regularly given comprehensive training sessions regarding occupational safety and environmental protection and that they know and understand the instruction manual and particularly the safety instructions contained therein
- none of the safety instructions and warning signs are removed from the machine or rendered illegible.

4.3 INTENDED USE

The Aquatrainer Horse Version 1.1 ("Aquatrainer") is exclusively intended for performing equine hydrotherapy.

The scope of intended use includes reading the instruction manual and complying with all instructions contained therein, especially the safety instructions. In addition, the scope of intended use also dictates that all inspection and maintenance work must be conducted within the prescribed time intervals.

The operational safety of the Aquatrainer is only guaranteed if it is operated according to its intended use.

The operator of the machine, and not the manufacturer, is responsible for all cases of personal injury and property damage resulting from improper use!

4.4 BASIC SAFETY MEASURES FOR STANDARD OPERATION

The machine may only be operated by specially trained and authorized persons who have read and understood the instruction manual and know how to comply with its instructions!



CAUTION

Do not pump water into the container unless the hatches are closed and locked.



CAUTION

Never open hatches while there is still water in the container above the treadmill level. Otherwise, hatches may pop open suddenly due to the water pressure. Risk of injury for humans and animals!



CAUTION

Before starting operation, check the machine for visible damage. Do not operate the machine unless it is in perfect working condition! Immediately report any damages or defects to the person in charge and make sure that the machine remains switched off and is secured against operation.



CAUTION

Before starting operation, remove all non-essential materials and objects from the area of operation. Before starting operation, make sure that all safety features are in full working order!



CAUTION

The machine may only be operated with rubber pads installed on both hatches. Otherwise, the animal is at a high risk of injury!



CAUTION

Change the treadmill speed very gradually so that the horse can adapt to the change.



CAUTION

Do not leave the control panel while the machine is in operation. Risk of injury to the horse!



CAUTION

Never let a person walk on the treadmill in the container.



CAUTION

A minimum of 2 persons are needed to operate the machine. 1 person operates the machine at the control panel, 1 person is in charge with the horse



CAUTION

Make sure that the operating environment is permanently frost-free with temperatures never falling below +3° Celsius. Moving parts may be damaged by frost, and icy surfaces pose a high risk of injury.



CAUTION

Before starting operation, check for foreign objects and other objects in the treadmill area. Objects in the treadmill area pose a risk of injury for humans and animals.

4.5 SAFETY MEASURES FOR STARTUP, REPAIRS AND MAINTENANCE



CAUTION

Make sure to observe the inspection and maintenance intervals prescribed in the instruction manual! Before conducting maintenance and repair work, make sure that no unauthorized persons have access to the area of operation. Put up signs that call attention to ongoing maintenance or repair work!



CAUTION

Before conducting maintenance or repair work, turn off the main switch at the switchboard and secure it with a padlock! The person conducting the maintenance or repair work must hold on to the key to this padlock while work is in progress!



CAUTION

When replacing heavy system components, use only appropriate and fully functional load suspension devices.



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CAUTION

When replacing heavy system components, use only appropriate and fully functional load suspension devices.



CAUTION

Prevent tripping hazards by properly installing all machine connections (cables, hoses and pipelines), e.g. using cable ducts, bridges, etc. To ensure full functionality and prevent malfunctions, make sure that the machine will rest horizontally on a flat surface at the site of installation. Take special care installing the connections and checking their tightness.

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CAUTION

Only trained electricians may conduct repair work on the system's electrical equipment! Regularly check electrical equipment! Reattach loose connections! Immediately replace damaged wires/cables. Keep switchboard closed at all times! Only authorized persons with key/tools may access the switchboard!



CAUTION

Never disassemble or disable any of the safety features! If safety features need to be disassembled in the course of equipping, repair or maintenance work, they must be reinstalled immediately upon completion of the maintenance or repair work



CAUTION

Never hose down switchboards or any other electrical equipment housings!

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5. TECHNICAL SPECIFICATION, TRANSPORT, STARTUP

5.1 TECHNICAL SPECIFICATION

5.1.1 MEASUREMENTS AND WEIGHT

Length	Appr. 4250 mm
Width	Appr. 1480 mm
Height	Appr. 2025 mm
Net weight system	Appr. 1959 kg

5.1.2 POWER REQUIREMENTS/ CAPACITIES

Service voltage 3~	3x AC 400V / 50Hz
Allover power	16 kW
Main fuse 3~	32 A
Control panel voltage	DC 24 V
Cable cross-section of supply line	min. 10 mm ²

5.1.3 ACOUSTIC EMISSION

Measurements and weight	dB (A)
-------------------------	--------

5.1.4 TYPE PLATE

Maschinennummer:	08-00-0003
Baujahr:	2008
Gewicht:	1950 kg
Betriebsspannung:	400V / 50Hz
Leistungsaufnahme:	16kW
Pneumatikanschluss:	min. - bar / max. - bar
Hydraulikanlage:	-- bar

5.2 TRANSPORT

To prevent damage to the machine or life-threatening injuries caused by the machine, the following instructions must be observed:



CAUTION

Make sure that the machine is consigned and transported with the utmost care!



CAUTION

Make sure that only specially trained persons are involved in the transportation process and that all safety instructions are complied with. Make sure that all load handling and lifting devices comply with accident prevention regulations. Select load handling and lifting devices according to the weight of the respective system component. Please also read the section on "Safety Instructions & Warnings".



CAUTION

The lifting lugs and hoisting devices specified in the appendix must be used for lifting. Furthermore, all four lifting lugs must be used during lifting. The two beams are inserted between the container side walls at the anchorage points of the lifting lugs with the planks resting on the section tube. This way, the beam cannot slide down during lifting. (see image on next page)



CAUTION

Make sure that there is absolutely no water in the machine prior to lifting it! Drain all residues left in the machine and disconnect the water and power supply lines.

5.3 INSTALLATION REQUIREMENTS

- The installation site must have a completely level slab of concrete with a surface area of at least 12 x 5 m (exact measurements to be determined on site) designed to bear a point load of approx. 180 kg for each of the 24 points of support.
- If the system is installed at ground level, an additional front area of at least 4 m for service work on the treadmill unit must be factored in.
- If the system is flush-mounted into the ground, an additional side area of approx. 1.2 m and an additional front area of approx. 4 m must be factored in on the level of the upper edge of the treadmill = floor for service work.
- Power supply: 400V, three-phase, 32A, five-phase, 16 kW total output
- 2 x water containers 4,000 – 8,000 liters with connection (DN 75)
- Water connection for filling and draining (DN 2.5" internal thread)
- Drain sump for flush-mounting installation (DN 100)
- Must be placed in a frost-proof area (+3° Celsius or more)

5.4 ELECTRIC POWER SUPPLY

- All power and water connections, as well as special constructions, may only be assembled and installed by trained personnel. Make sure to read and comply with the installation manuals of all accessory parts!
- Regularly check cables that are outside of the machine for damage.
- The power supply connection cable must have a cross section of at least 5 x 6 mm². Preliminary fuse: 32A



CAUTION

Before start-up, make sure that all power connections have been installed correctly.

5.5 CHECKING THE FUNCTIONALITY OF THE SAFETY FEATURES

Safety feature	Way of checking	Result
Emergency STOP	Push red button	System stops, button filling and discharging still working
Button „CONTROL“ at user control panel	Push button	System check SPS, user control activated



CAUTION

Do not clear the machine for therapy before making absolutely sure that all safety features are fully functional!



CAUTION

Make sure to check all safety features in sequence before starting up the machine after a longer period of inactivity, as well as every day before starting to work.

Read and comply with the safety instructions in Section 4 to avoid mechanical breakdown or critical injuries while installing the machine.

First, the machine is transported to the site of installation using an appropriate transporting device with a minimum hoist power of 2 T, and then it is reassembled. The Aquatrainer must be leveled evenly so that the treadmill is perfectly horizontal. The platform must be attached to the wall or floor with ground anchors. If applicable, any adjustable feet also must be attached with ground anchors. Then, an electrician connects the switchboard to the machine and the supply line. The pumps must also be connected to a power source. Please note that this connection is not included in delivery. Please contact your supplier for more information. In addition, both the Aquatrainer and the platform must be grounded. Furthermore, the rubber pads, which are also included in delivery, must be mounted on both hatches. Please take into account the setting time of the glue. Press emergency-off button and main switch. Release emergency-off button and test all functions without a horse in the Aquatrainer as follows:

Push Emergency Stop button and switch on main electric switch. Release (Pull) Emergency Stop button and check all function without a horse on the treadmill:

- Function Emergency Stop button
- Belt on various speed levels
- Water filling and discharging
- Belt simultaneous with filling and discharging
- Ready to operate

6. DESCRIPTION OF THE SYSTEM

6.1 OVERALL MACHINE

The Aquatrainer is a machine developed for equine hydrotherapy. Essentially, it is a large container with a treadmill inside. The treadmill's speed can be regulated individually, enabling the horse to practice its natural walking and trotting pace – at first without water, to get to know the machine. Then, depending on requirements and training status, the Aquatrainer is filled with water via a pump system enabling the horse to walk in the water. The water level can be individually adjusted via the pump system, and the Aquatrainer can be drained at any point of the procedure.

The Aquatrainer consists of 6 main components.

Position	Description
1	Container
2	Treadmill
3	Examination podest
4	User control panel
5	Connector for filling and discharging

The individual components are described in detail below:

6.1.1 CONTAINER

The container consists of stainless steel sections and stainless steel sheets that are welded together to form a water-proof, sturdy framework construction. The hatches are located at the front and rear end. A removable inspection flap is located at the front. In addition, removable, adjustable tread plates are located at the front and rear ends. These tread plates are provided for maintenance purposes. Individually adjustable hatch mountings and locks are located at the front and rear ends.

6.1.2 TREADMILL UNIT

The container consists of stainless steel sections and stainless steel sheets that are welded together to form a water-proof, sturdy framework construction. The hatches are located at the front and rear end. A removable inspection flap is located at the front. In addition, removable, adjustable tread plates are located at the front and rear ends. These tread plates are provided for maintenance purposes. Individually adjustable hatch mountings and locks are located at the front and rear ends.

6.1.3 EXAMINATION PODEST

The operating platform has two access stairs. In addition, removable pressure-locked gratings are mounted to the platform frame for easy access to the area underneath the operator platform.

6.1.4 USER CONTROL AND MAIN GEAR

The controls consist of a control panel including mounting and a switchboard. The drive, a drum motor, is located inside the container, directly behind the treadmill unit. The electric cable entry for the power supply is implemented from the outside with a special waterproof cable.

6.1.5 WATER OUTLET AND INLET

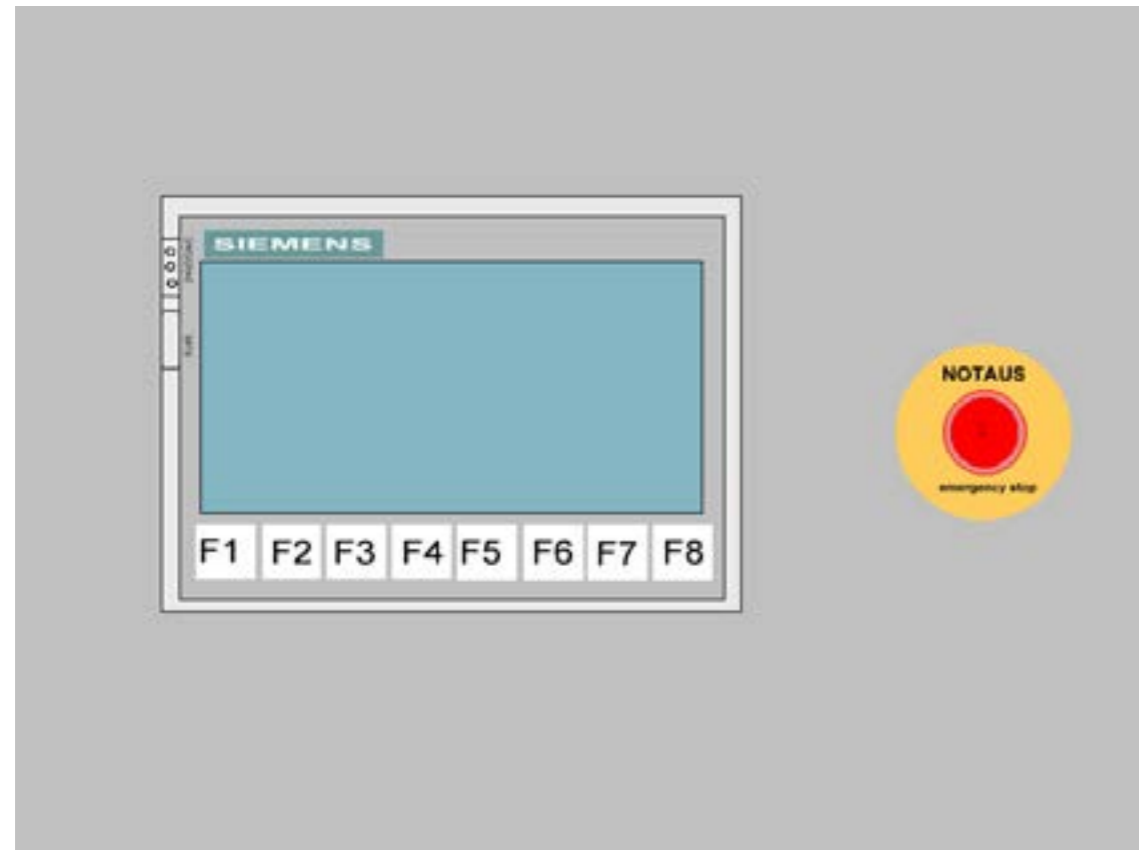
The controls consist of a control panel including mounting and a switchboard. The drive, a drum motor, is located inside the container, directly behind the treadmill unit. The electric cable entry for the power supply is implemented from the outside with a special waterproof cable.

7. OPERATION

7.1.1 OPERATIONAL DEVICES

The control devices consist of:

- Main electric switch (main electric box)
- Control panel



7.1.2 MAIN ELECTRIC SWITCH (MAIN ELECTRIC BOX)

This switch is used to activate and deactivate all electrical components of the machine. The switchboard itself may only be opened by trained experts. The same applies to the control panel. Before conducting maintenance work, the machine must be shut down with the main switch and secured against restarting with a lock. (See section 4.5, "Safety Instructions for Maintenance, Transport and Start-Up")

7.1.3 EMERGENCY STOP

This button is used for emergency shutdowns. Pressing it deactivates all electrical components. The treadmill immediately stops moving, and the pumps stop working as well. After using the emergency-off button, make sure to determine the reason for the emergency shut-down before reactivating the system. Only use the emergency-off in case of emergency because the treadmill will stop moving abruptly.

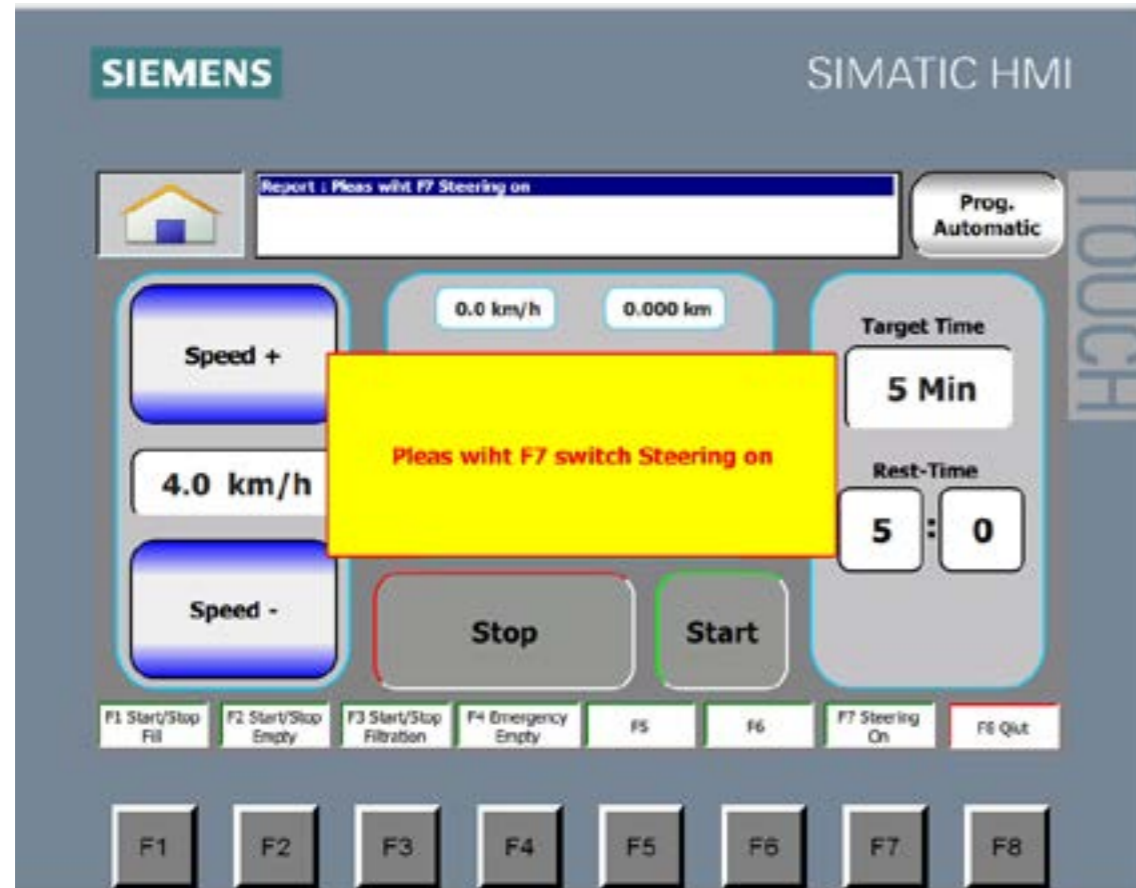
7.1.4 STARTSCREEN



Description of the possible input fields.

- Water Treatment = Watertreatment Screen
- Basic Parameters = Screen of the basic parameters
- German = Set over to german language
- English = Set over to english language
- Press on the logo = Screen for operating parameters (this part ist protected by name & password combination)

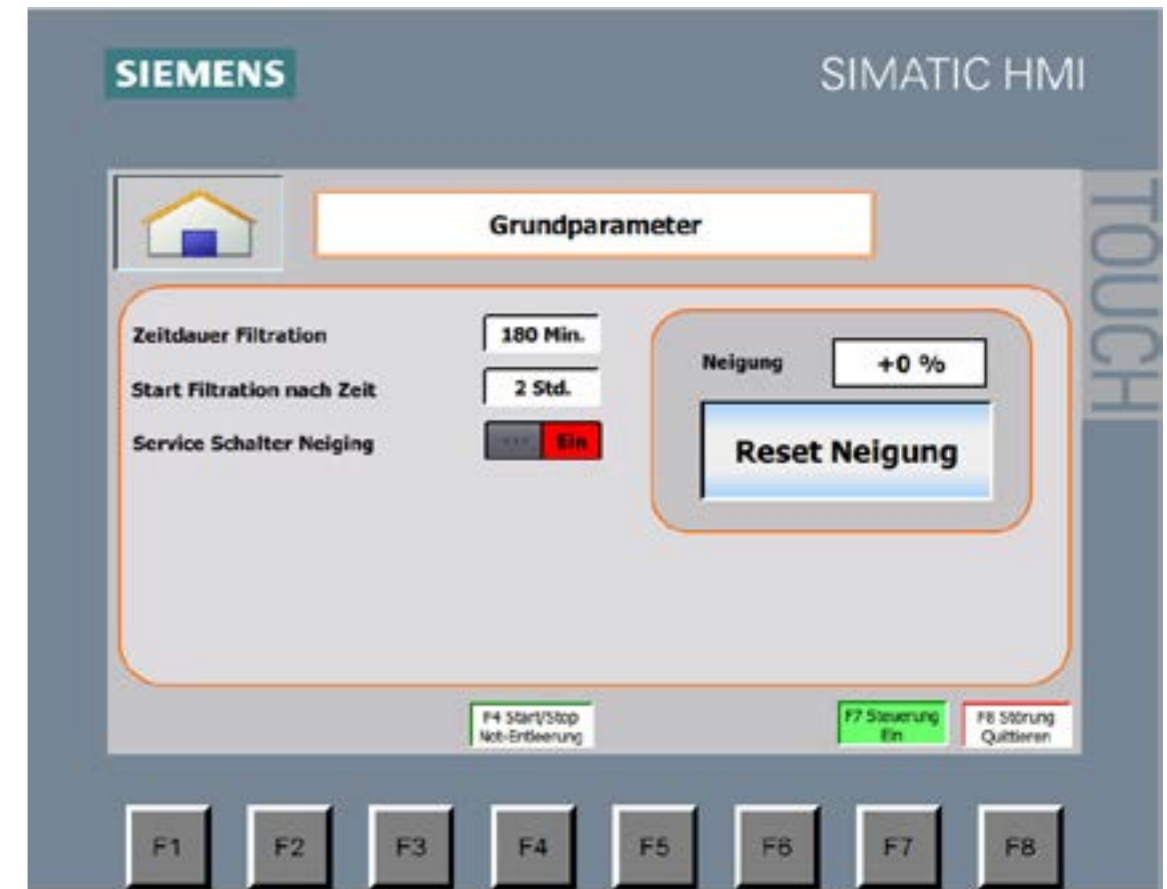
7.1.5 ENABLE THE CONTROL SYSTEM



After starting the machine by the main electric switch or pressing the emergency stop, the control system has to be released. Press „F7“ on the Touchpad to release the control system.

The only Process you can do without pressing the release button is the emergency emptying.

7.1.6 BASIC PARAMETERS

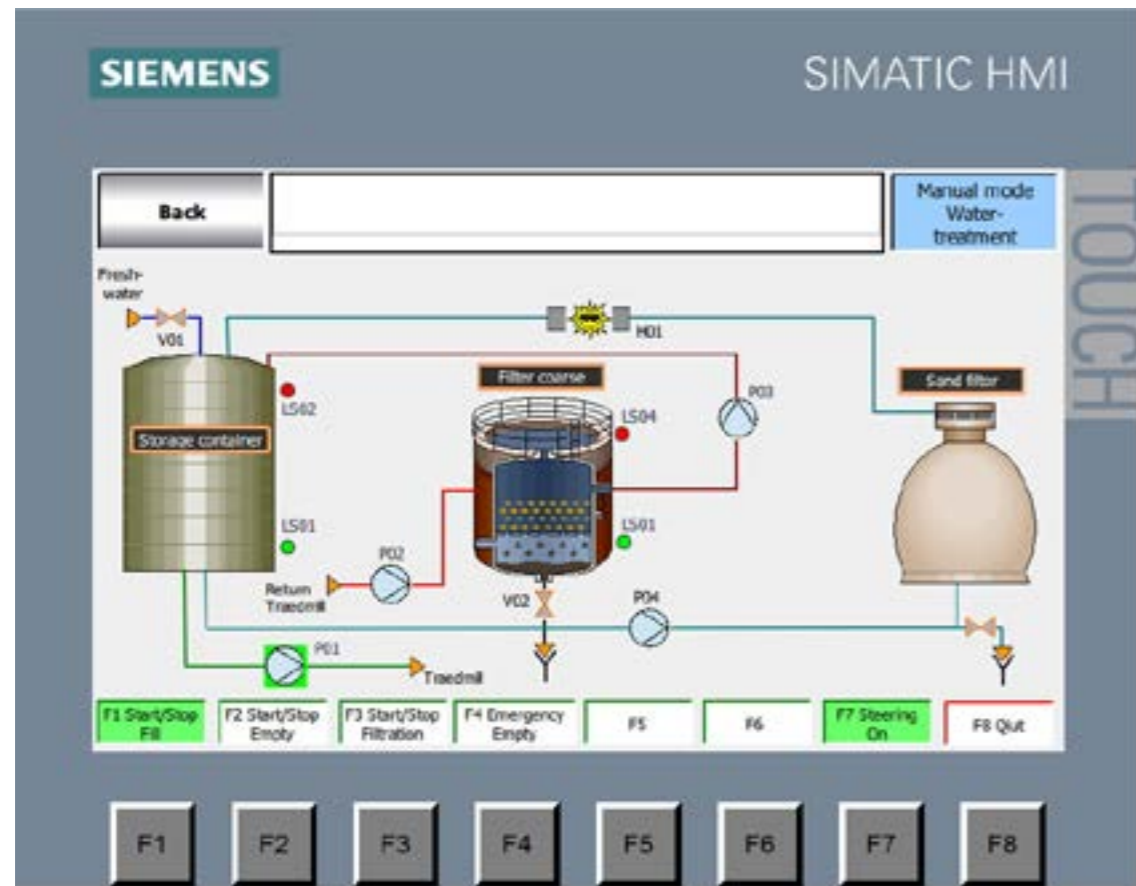


- Reset Incline = Adjust the zero point (Just available if the pack is inclusive)
- Service Button Incline = Treadmill inline manually adjustable. (Just available if the pack is included in y)
- Set the Duration of the Filtration
- Start the Filtration after specific Delay
- If both input fields are setted to zero, the filtration will be started or stopped by pressing F3

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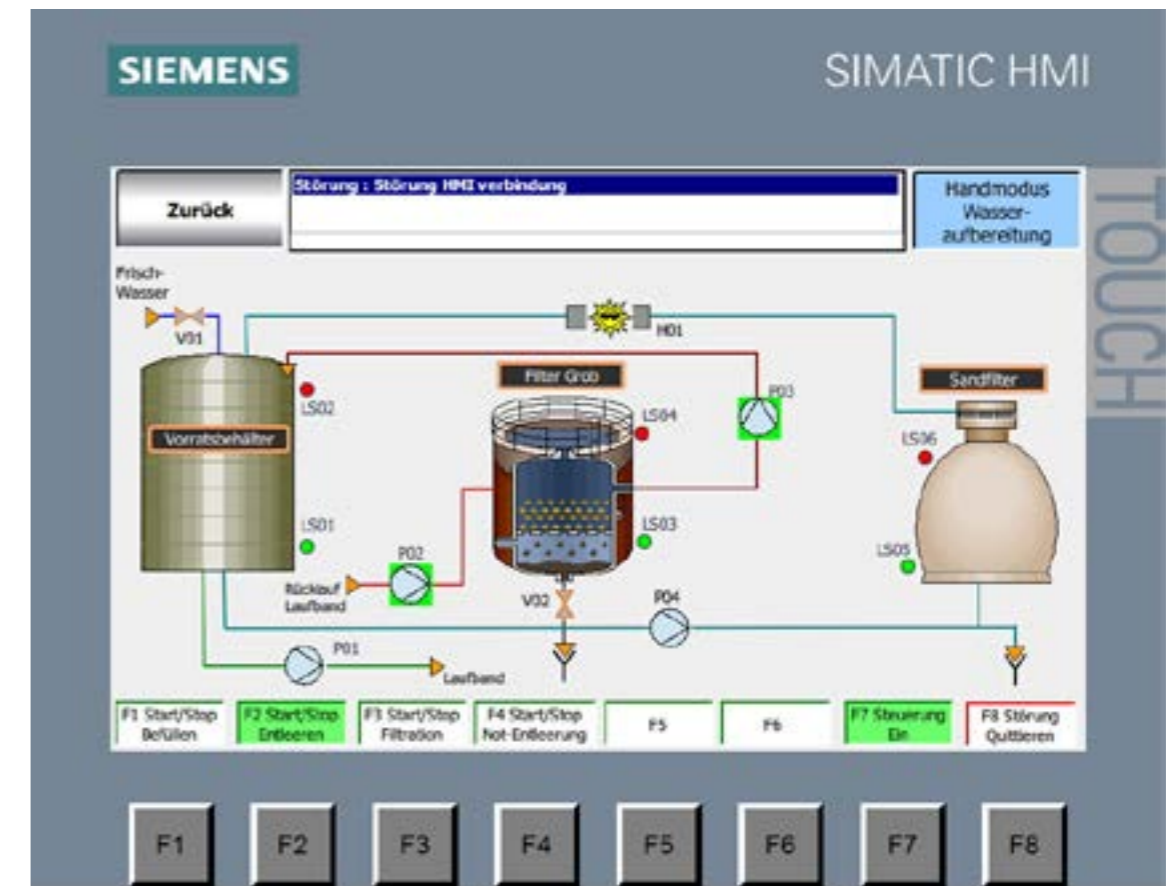
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7.1.7 AQUATREADMILL FILL UP PROCESS



- F1 button to start & stop the process to fill the water treadmill
- Pump P01 starts when the level sensor LS01 does not report that the reservoir is empty.
- If the level sensor LS01 reports that its empty, pump P01 waits until the level is above the level sensor LS01, then it starts automatically.

7.1.8 AQUATREADMILL EMPTYING PROCESS

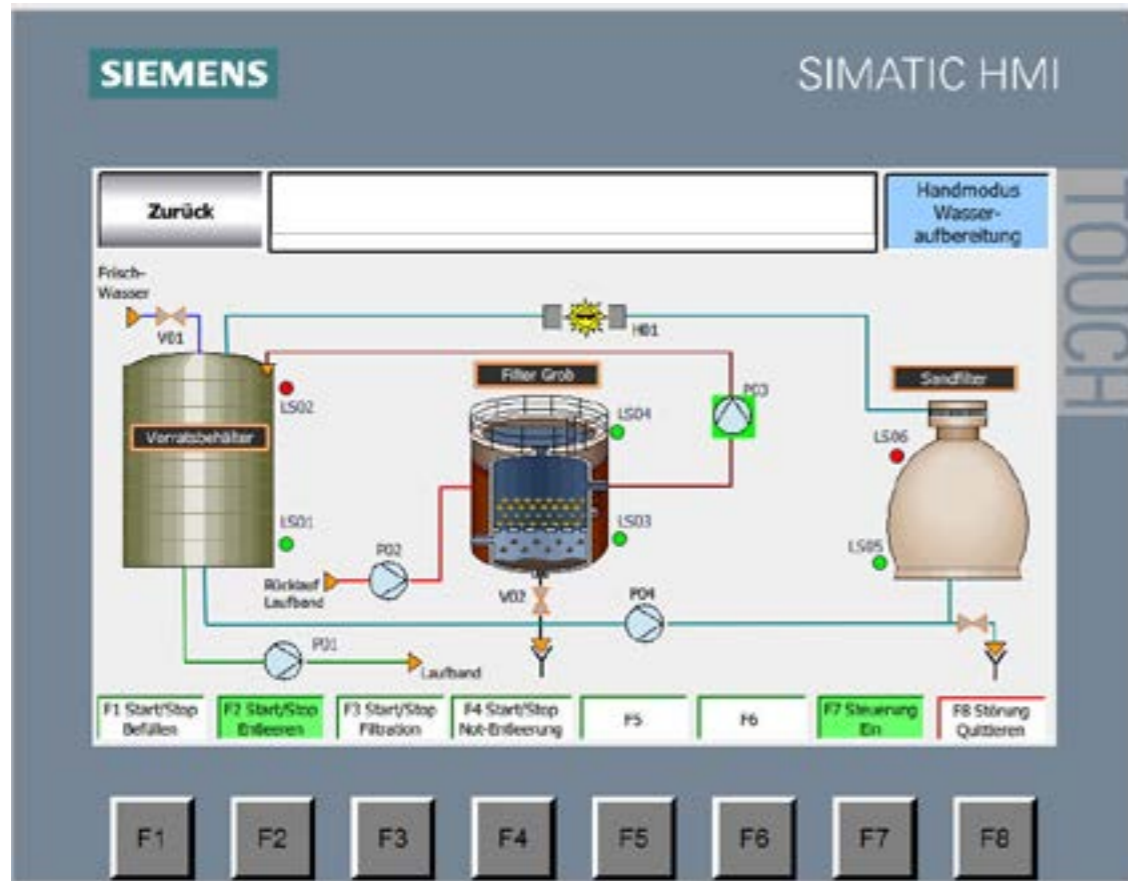


- F2 button Start / Stop to empty the treadmill
- Pump P02 pumps the dirty medium into the coarse filter as long as the Level sensor LS04 on the coarse filter does not report that it is full.

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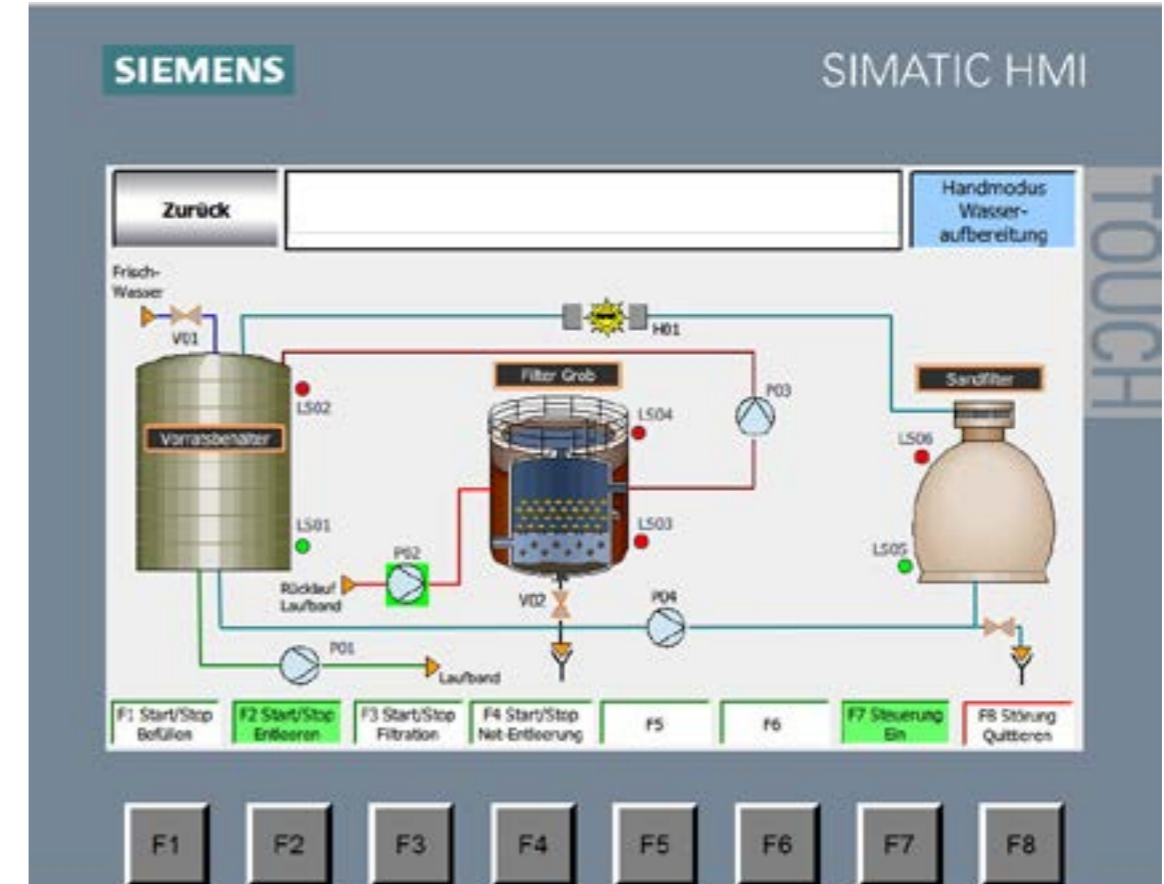
7.1.8 AQUATREADMILL EMPTYING PROCESS



If the level sensor LS04 on the filter coarse reports full, the pump P02 waits until the level is again below the level sensor LS04 for a specified time.

- Pump P03 pumps the coarsely filtered medium back into the storage tank the level sensor LS03 on the coarse filter does not report empty

7.1.8 AQUATREADMILL EMPTYING PROCESS



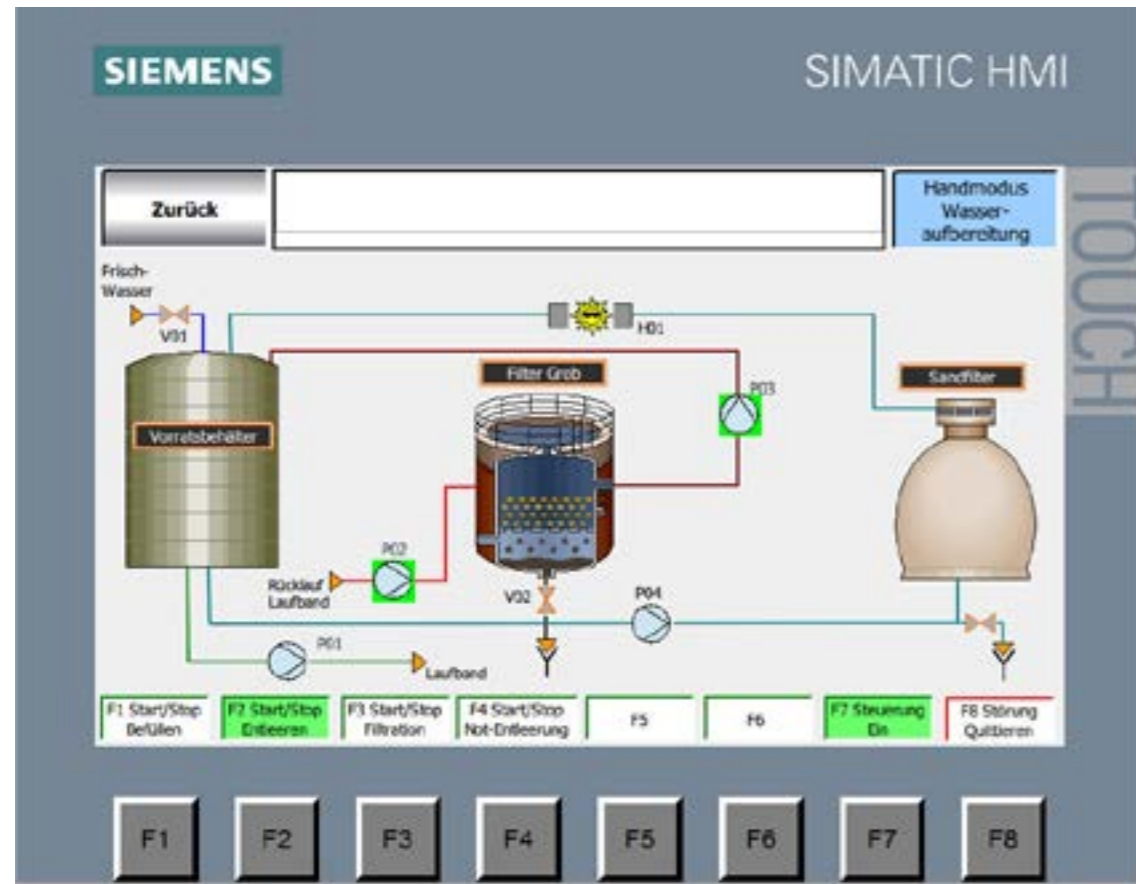
When the level sensor LS03 on the coarse filter reports empty, the pump P03 waits until the level is above the level sensor LS03 again for a specified time.

These processes are repeated until the emptying process is stopped with the F2 button.

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7.1.8 AQUATREADMILL EMPTYING PROCESS

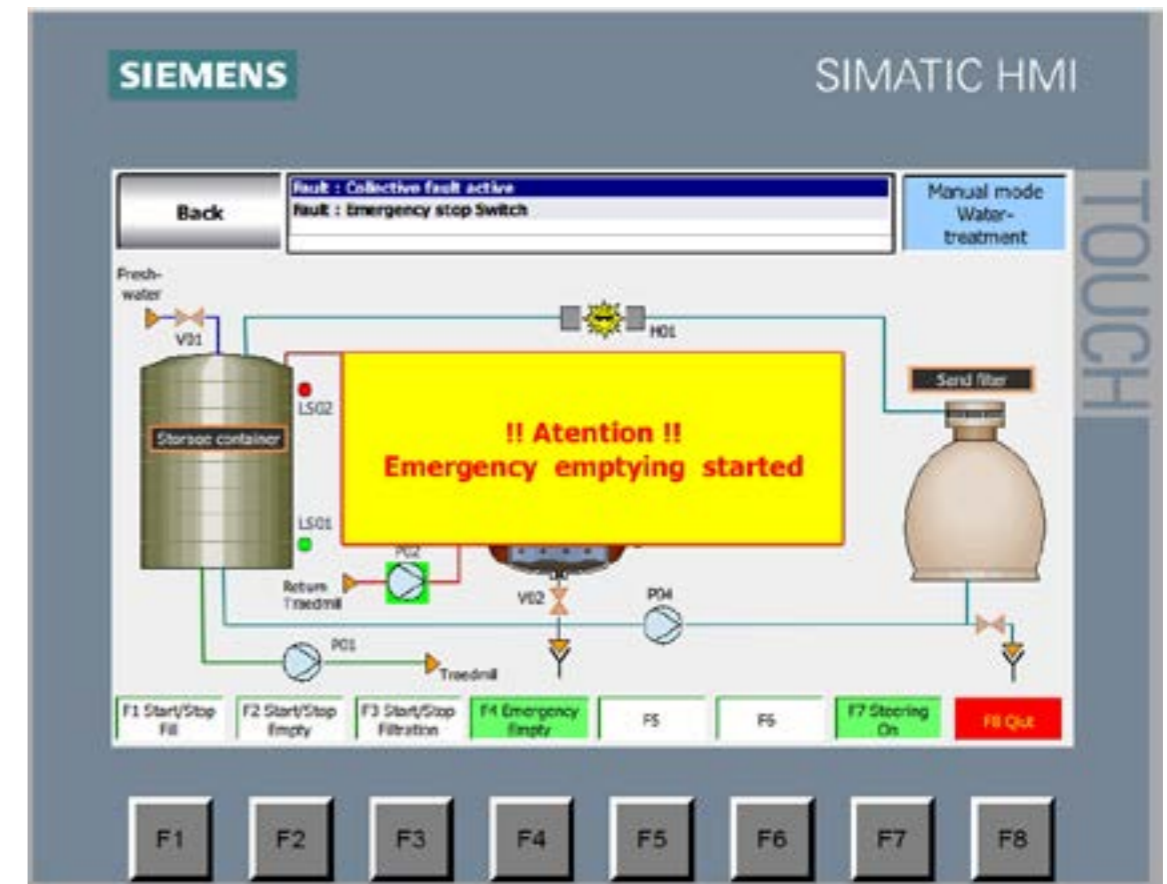


After starting the machine by the main electric switch or pressing the emergency stop, the control system has to be released. Press „F7“ on the Touchpad to release the control system.

The only Process you can do without pressing the control release button is the emergency emptying.

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7.1.9 EMERGENCY EMPTYING



Pay Attention please!



CAUTION

This function is only permitted in an emergency and can not be used as normal operation.

Emergency emptying may only be carried out by trained persons and is only allowed in an emergency !

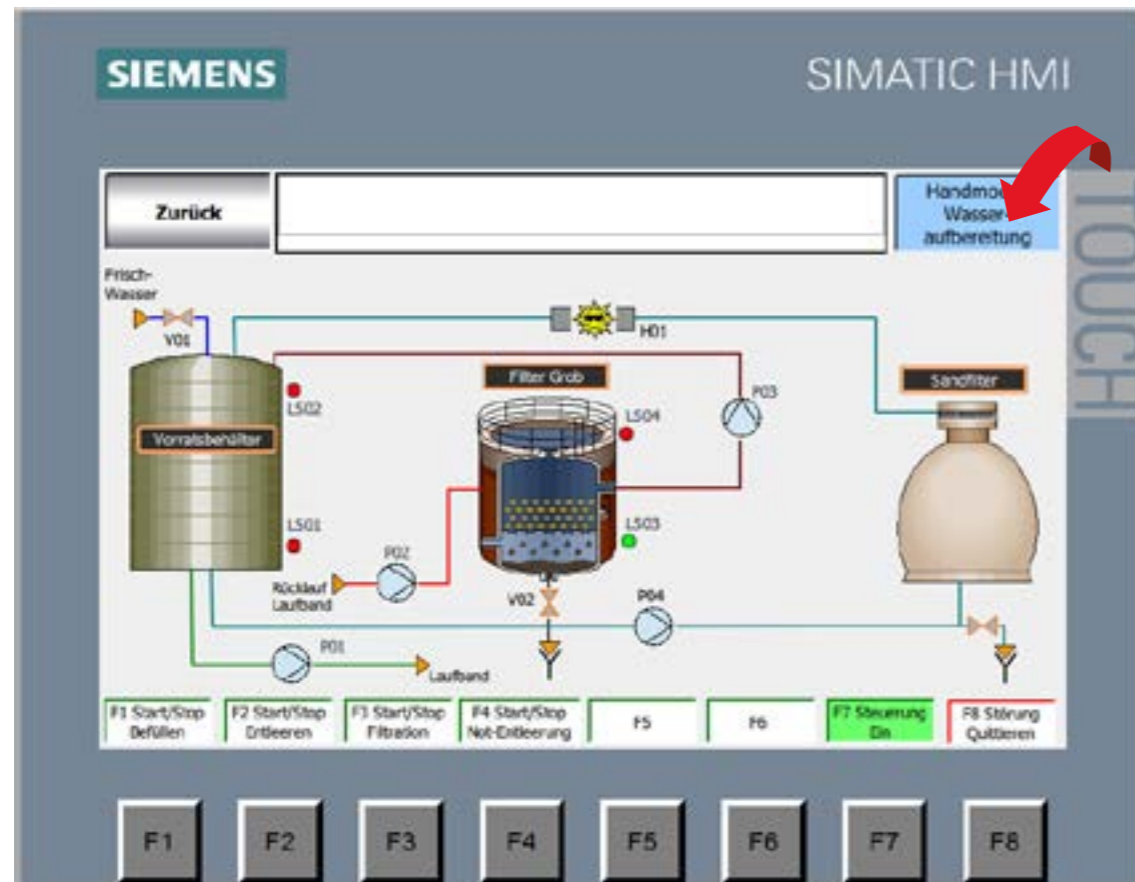
Emergency emptying can only be started if there is no Malfunction at pump P02 existing and:

- Emergency stop button pressed
 - The emergency stop switch unlocks but the error is not acknowledged
 - The emergency stop button is unlocked and the error is not acknowledged
- Control release

F4 button start / stop emergency emptying

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7.1.10 MANUEL MODE WATER TREATMENT



Manual Mode: Off

In manual mode, all actuators (e.g. pumps, valves) for the Water treatment can be switched manually.

How to activate the manual mode:

- By pressing the manual mode water treatment button, the Manual mode is switching on / off.

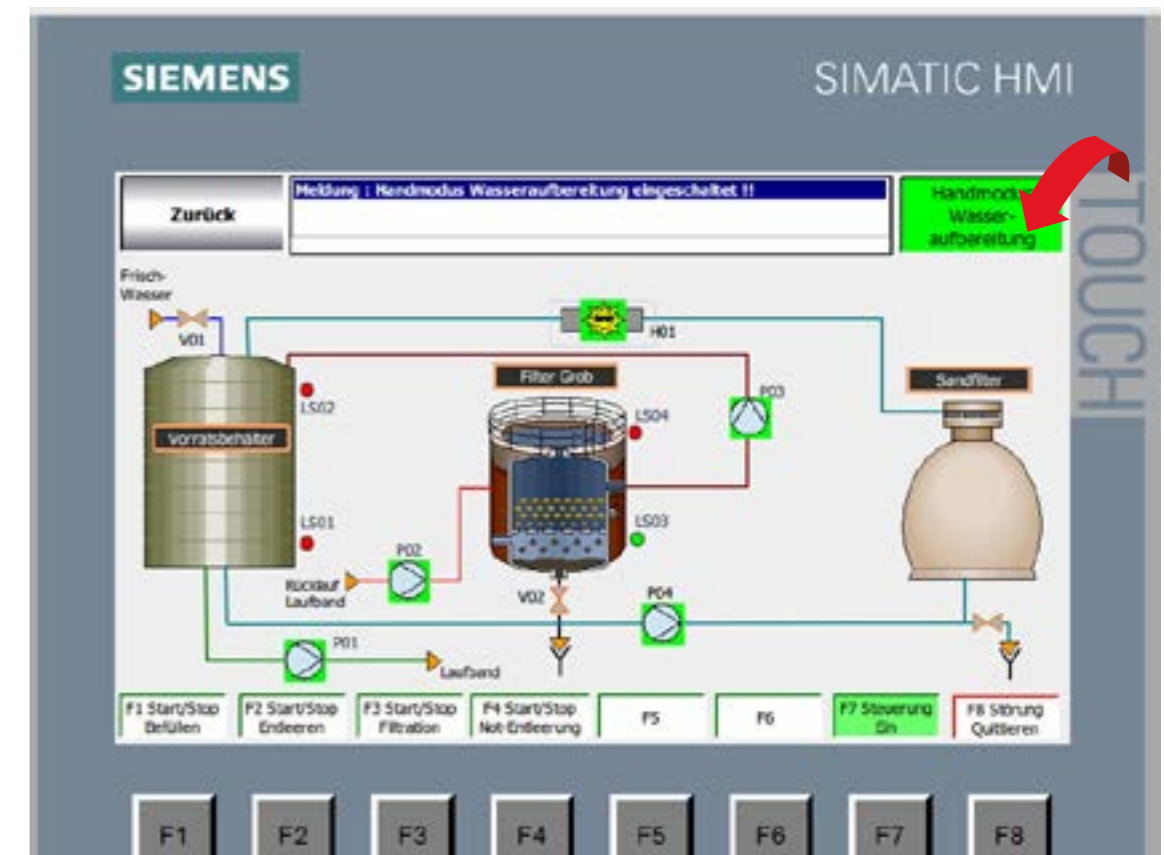
The manual mode water treatment keypad flashes when it is activated

Function in the colors green / black

The message Manual mode water treatment appears in the display panel switched on

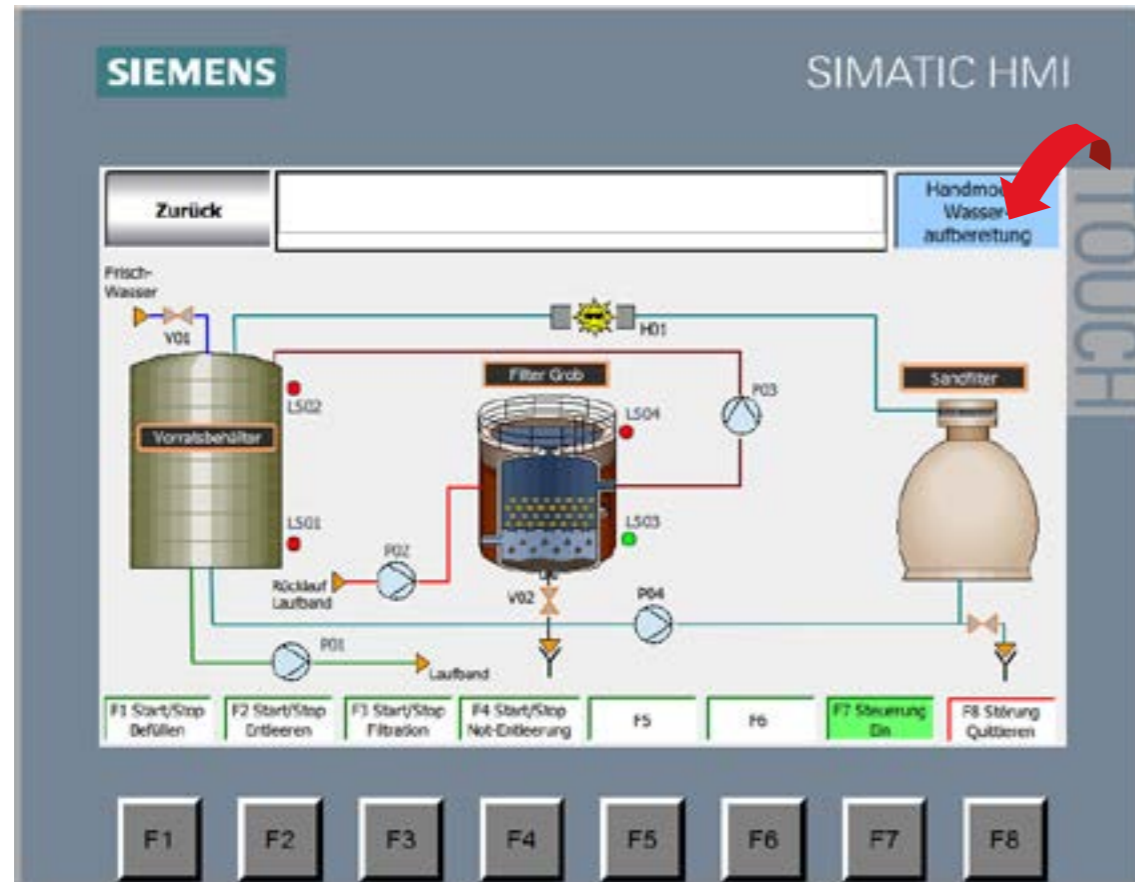
- By pressing the symbols in the flow diagram (e.g. pump, valves, lamp) the actuator is switched on / off

7.1.10 MANUEL MODE WATER TREATMENT



Manual Mode: On

7.1.10 MANUEL MODE WATER TREATMENT



Manual Mode: Off

In manual mode, all actuators (e.g. pumps, valves) for the Water treatment can be switched manually.

How to activate the manual mode:

- By pressing the manual mode water treatment button, the Manual mode is switching on / off.

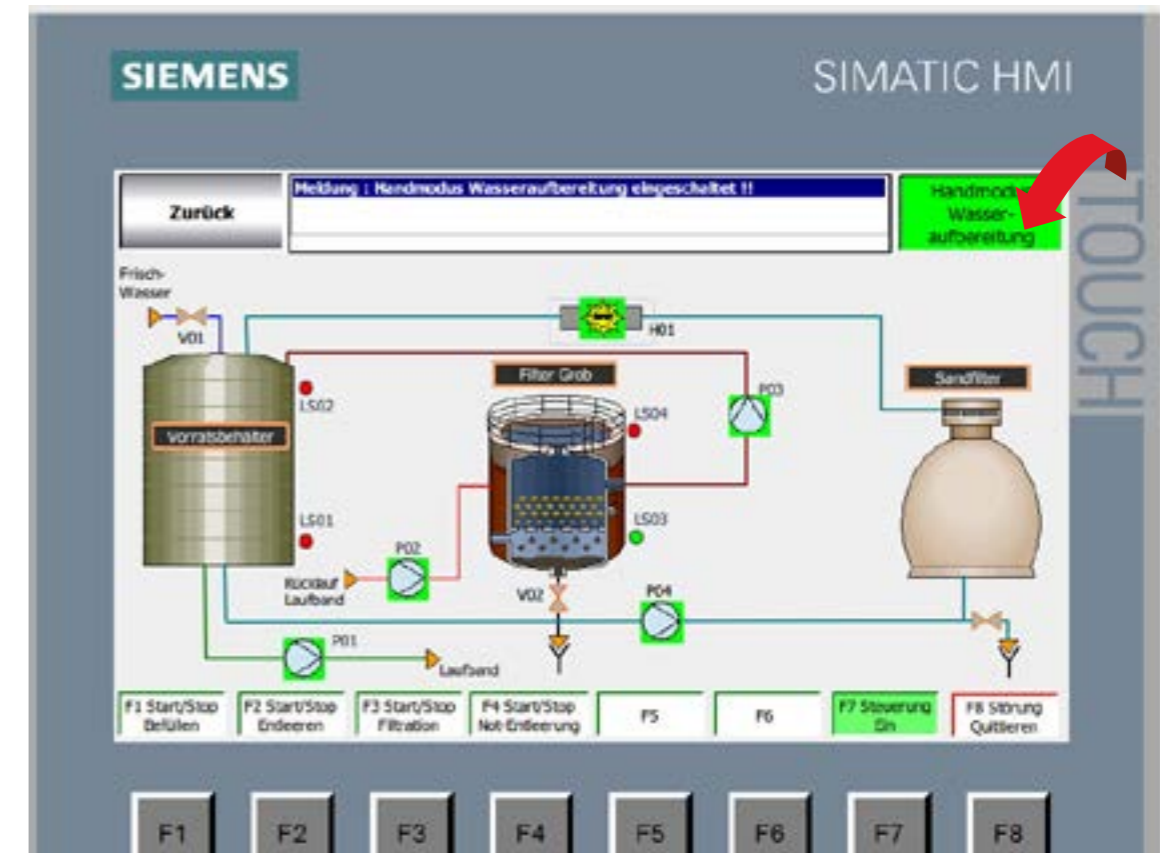
The manual mode water treatment keypad flashes when it is activated

Function in the colors green / black

The message Manual mode water treatment appears in the display panel switched on

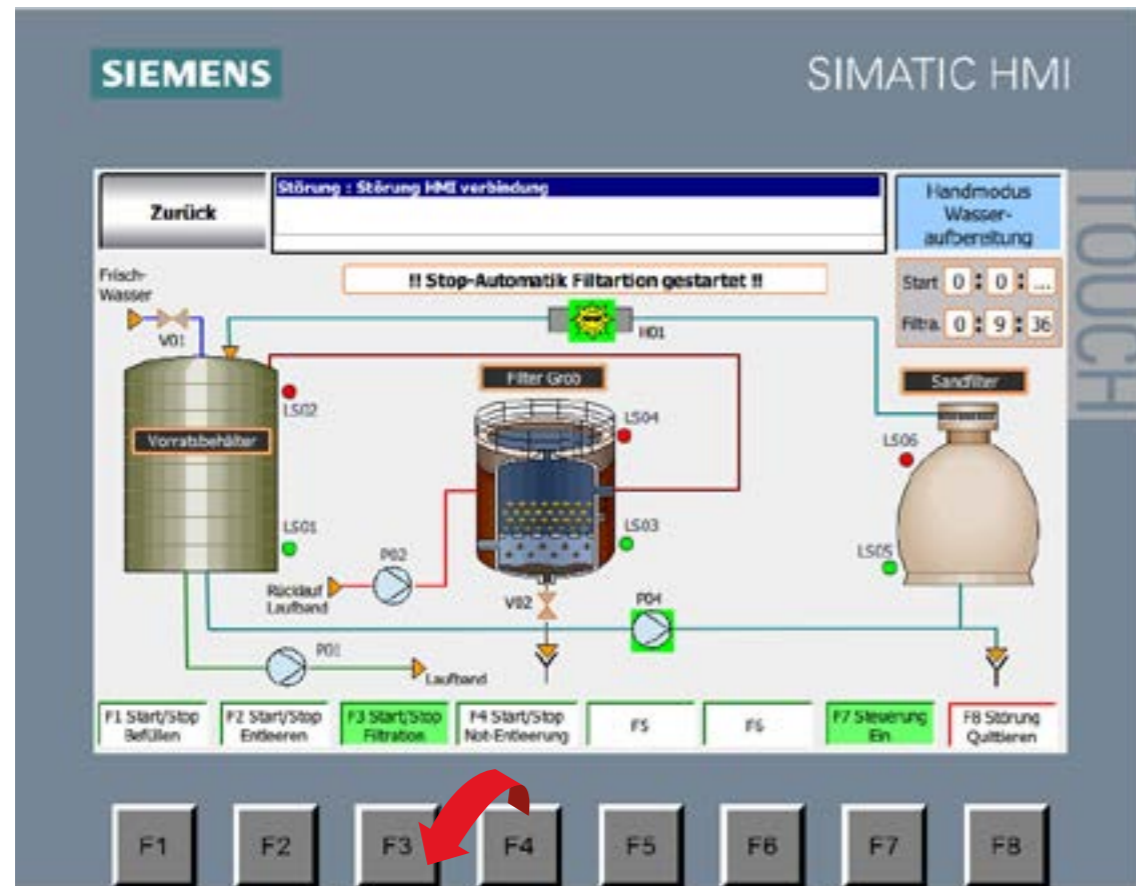
- By pressing the symbols in the flow diagram (e.g. pump, valves, lamp) the actuator is switched on / off

7.1.10 MANUEL MODE WATER TREATMENT



Manual Mode: On

7.1.11 FILTRATION THROUGH SANDFILTER



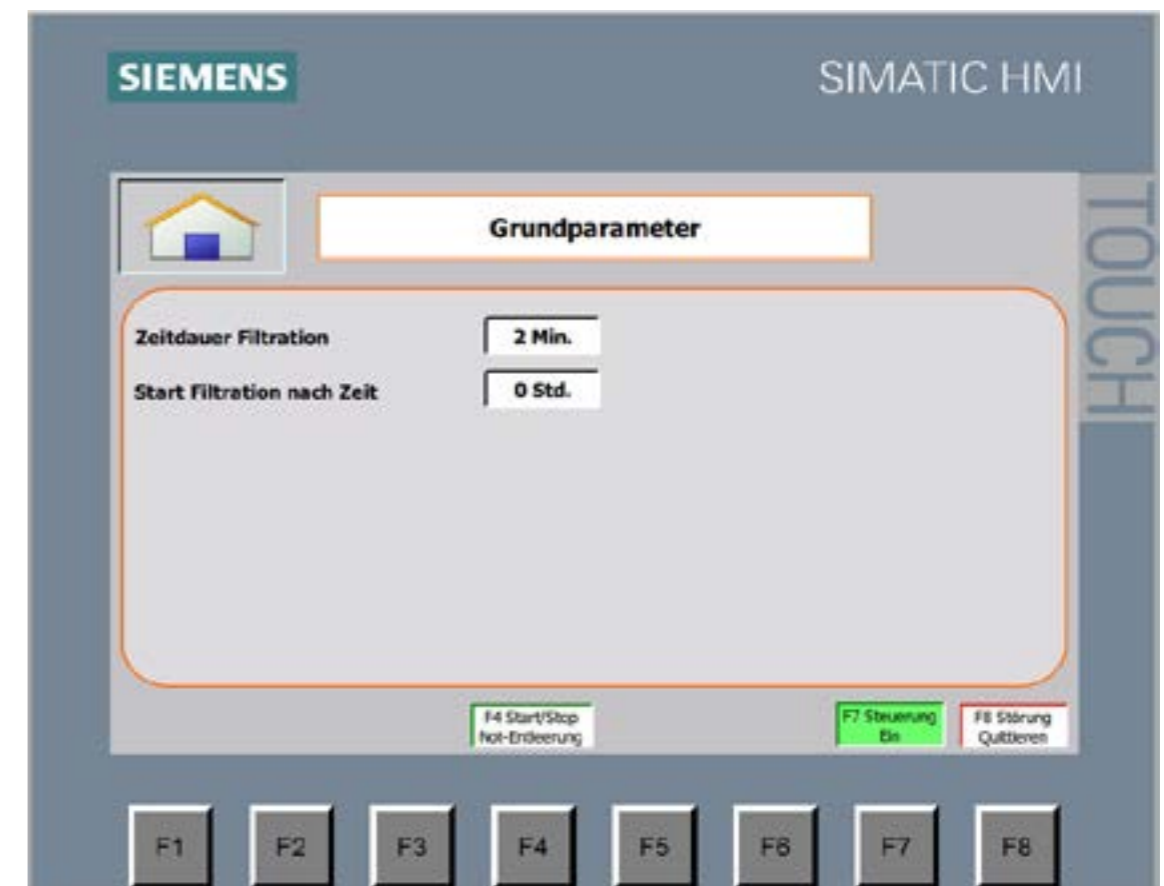
F3 key Start / Stop the process filtration

- If a start time has been selected, the switch-on delay starts
- After the switch-on delay has expired, the pump P04 starts and the medium flows through the sandfilter and the UV lamp
- If a time period has been selected for the filtration, the filtration stops automatically

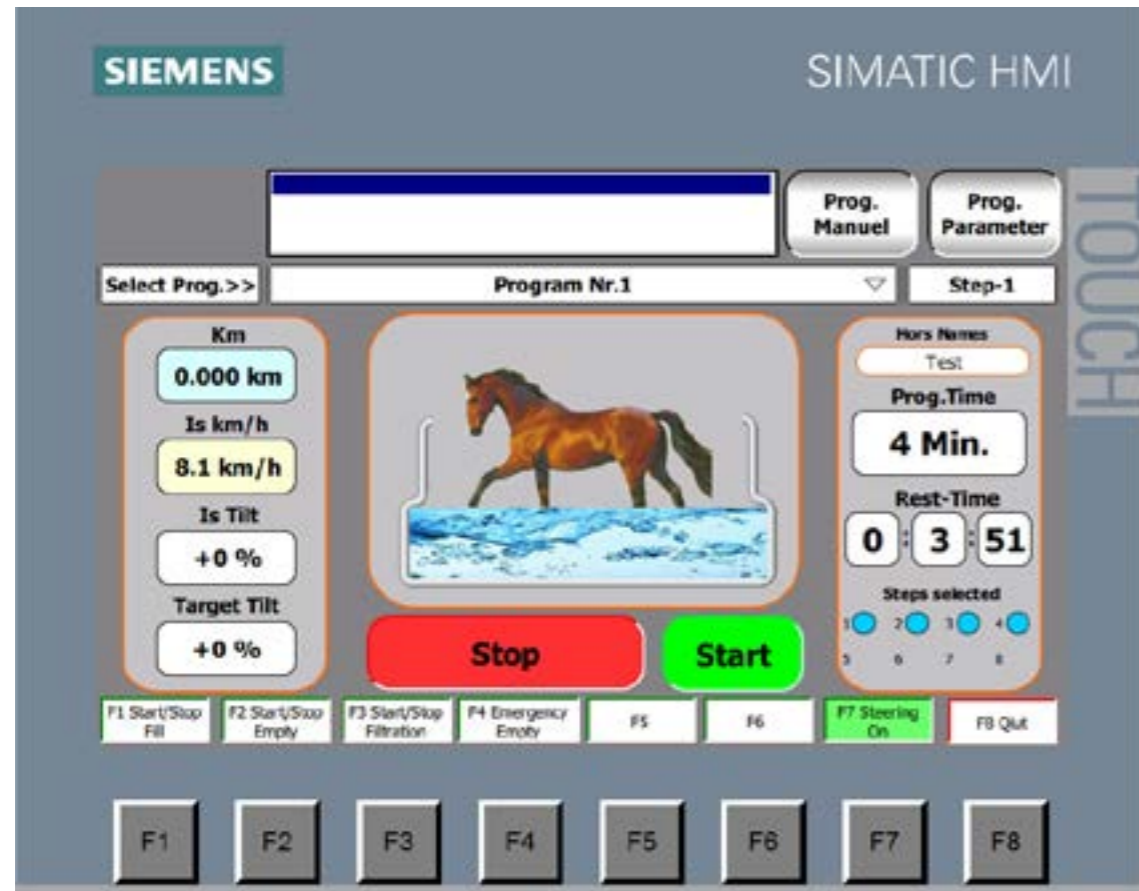
After expiration of time

- The filtration can be stopped at any time with the F3 key
- If no switch-on delay and target duration were selected for the filtration starts and stops the filtration immediately after pressing the F3 key

7.1.11 FILTRATION THROUGH SANDFILTER

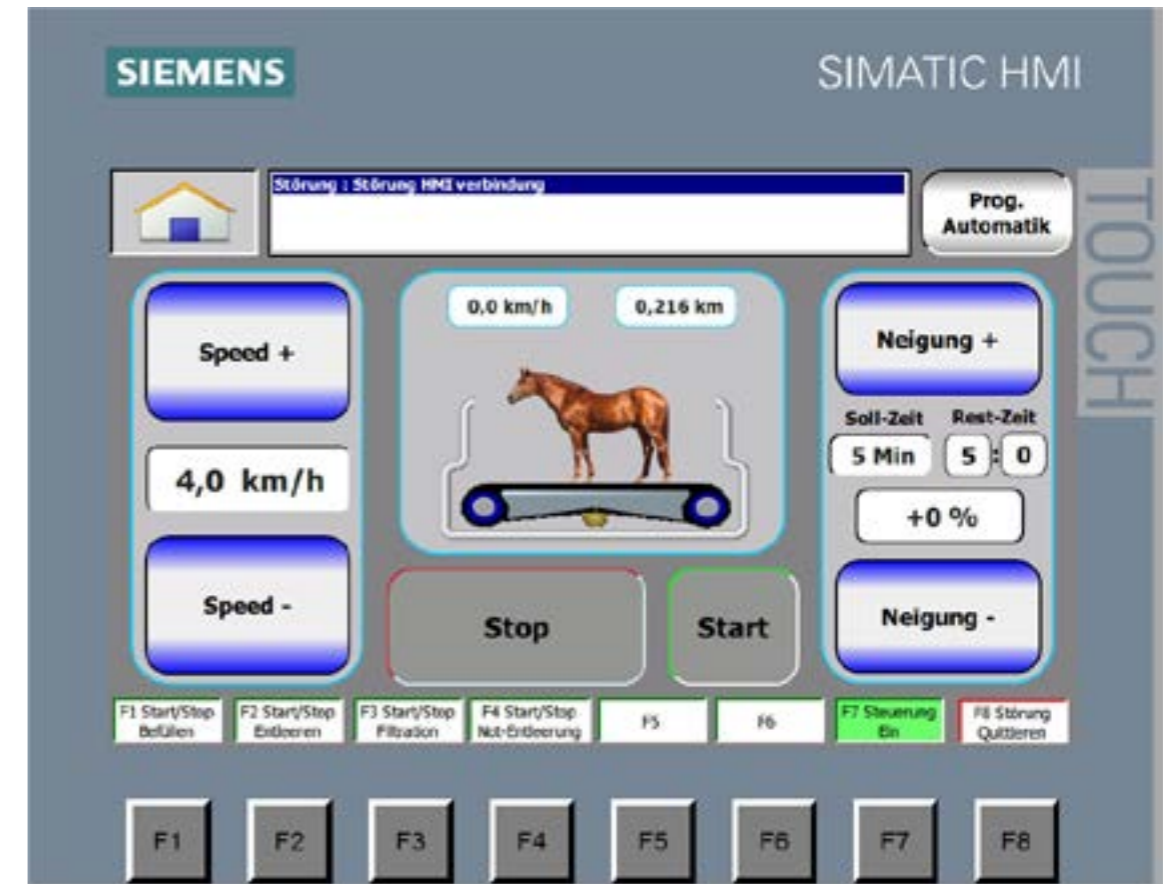


7.1.12 OPERATING AUTOMATIC MODE



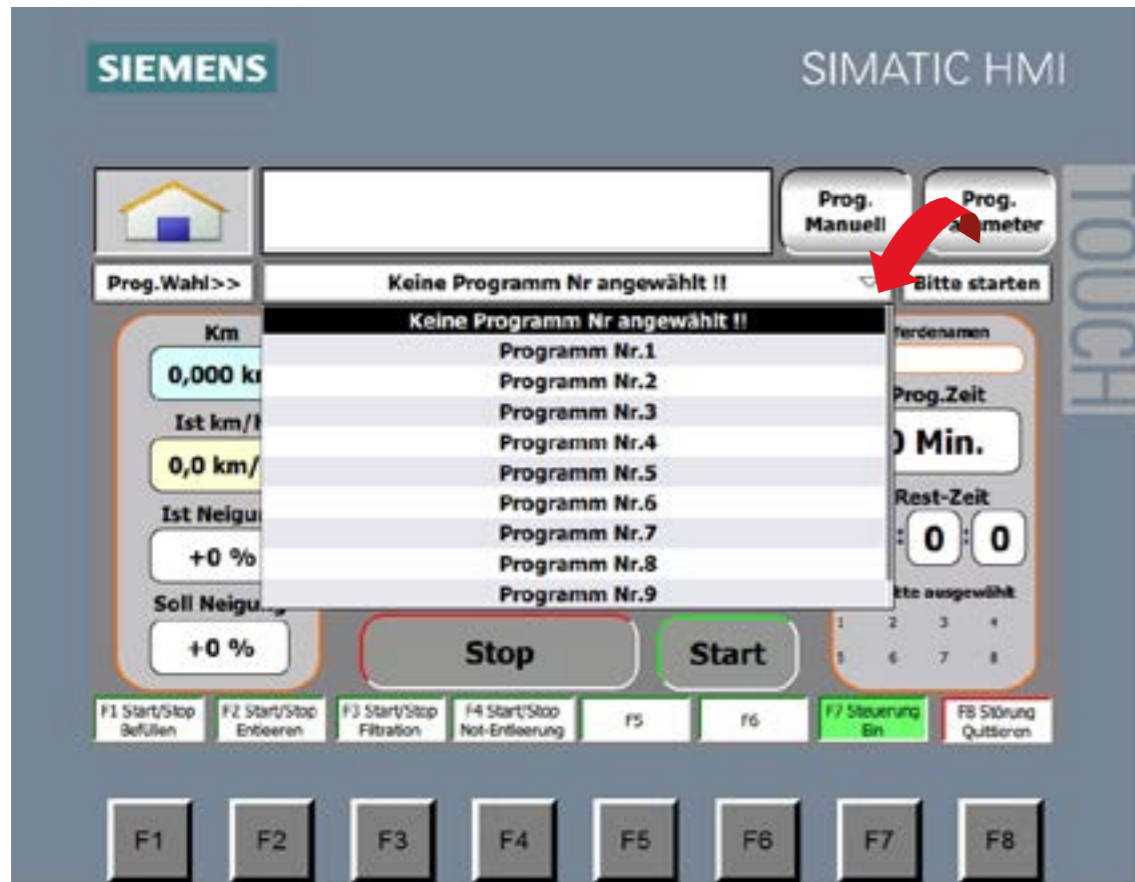
- Stop = Stop treadmill
- Start = Start treadmill
- Prog. Manuel = Screen display program treadmill Manual
- Prog.Parameter = Parameter Programs Automatic
- Display field Km = Shows the actual moved distance
- Display field Actual km/H = Actual speed
- Actual inclination display field = Actual inclination
- Display field target inclination = target inclination in program step
- The inclination display fields are only visible if the inclination sensor is present.**
- Display field Prog. time = Total time of selected Prog. no.
- Display field Remaining time = Remaining time of Prog. automatic
- Horse name = Horse name deposited in the Prog. no.
- Steps selected = Program steps from selected Prog.
- Selection window Program No. = Select desired Prog. No.

7.1.13 OPERATING MANUAL MODE



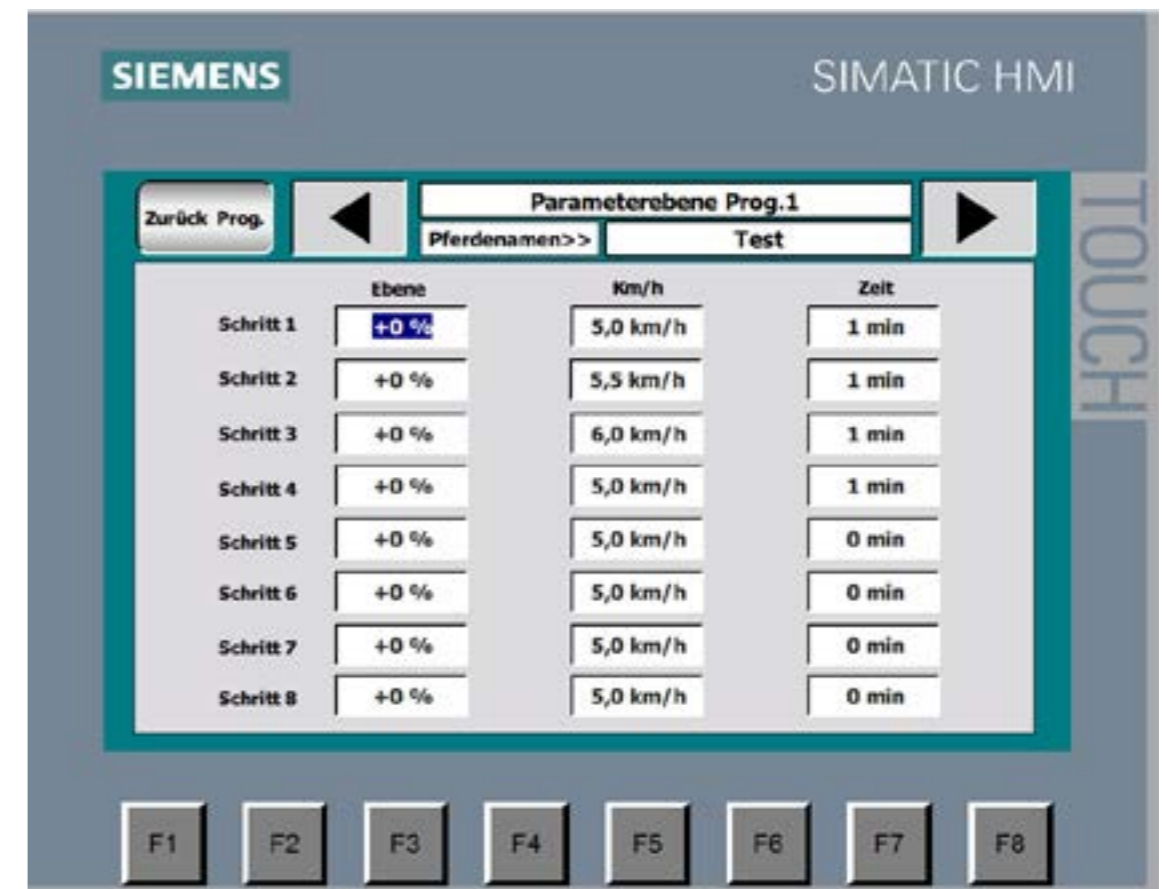
- Speed+ = Increase the target speed
- Speed- = Reduce the target speed
- Stop = Stop treadmill
- Start = Start treadmill
- Inclination+ = Incline treadmill up
- Incline- = Incline Treadmill Down
- The buttons inclination are only visible if inclination is present!
- The display field inclination % is only visible if inclination and inclination sensor are present!
- Input field km/h between the buttons Speed = Target km/h
- Input field Target time = Target time duration program run manual
- Display field Remaining time = Remaining time program run manual
- Display field km/h = Actual km/h
- Display field km = km run
- Prog. automatic = Change screen to program run Treadmill automatic
- F1 = Start/Stop filling treadmill
- F2 = Start / Stop Empty treadmill
- F3 = Start /Stop Filtration
- F4 = Start /Stop emergency emptying
- F5 = Free not assigned
- F6 = Free not assigned
- F7 = Control On
- F8 = Acknowledge fault
- The F keys have the same functions everywhere.

7.1.14 PROGRAM SELECTION



By pressing on the selection window once the program can be selected.

7.1.15 PARAMETER LEVEL PROGRAMS



Plane/Ebene = Target inclination . Is only relevant if inclination sensor is present
 Km/h = Target km/h steps
 Time/Zeit = Target time step



INFORMATION

Only the steps are executed where a target time has been given.

Horse name/ Pferdenamen = Horse name if desired.
 Arrow key left/ Pfeiltaste links = back to previous prog. no.
 Arrow key right/ Pfeiltaste rechts = to next Prog No,
 Back Prog/ Zurück Prog. = screen call Prog Automatic

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7.1.16 MALFUNCTIONS

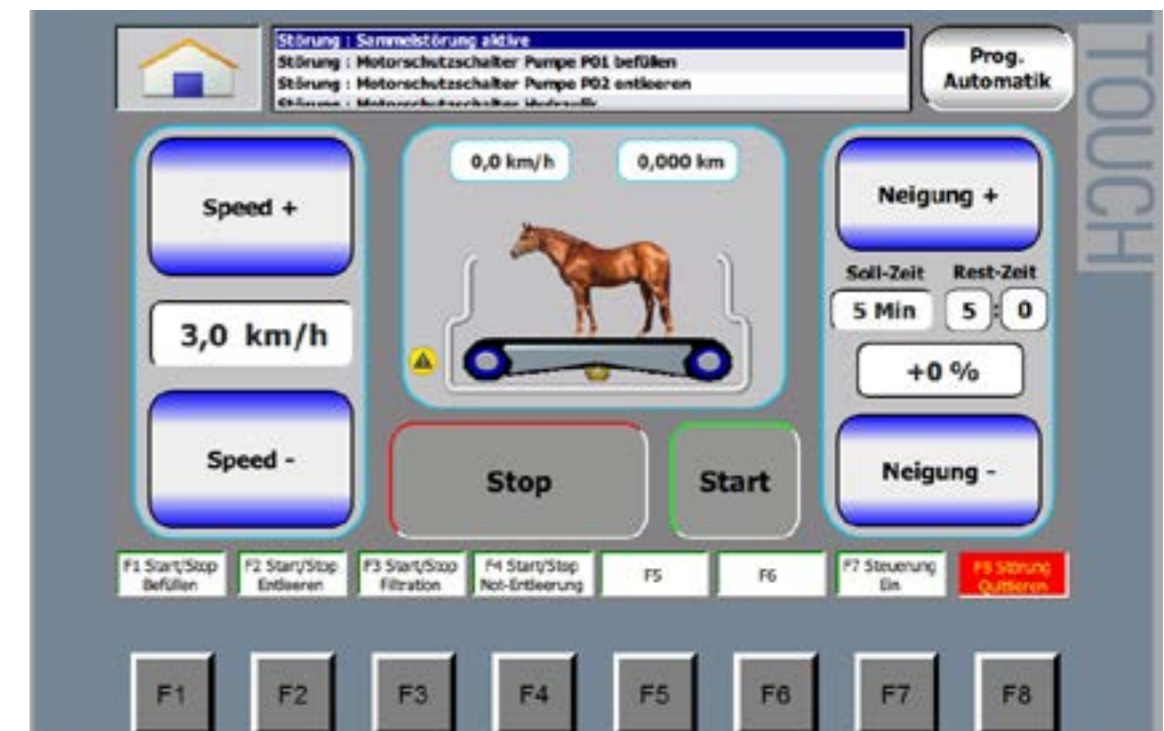
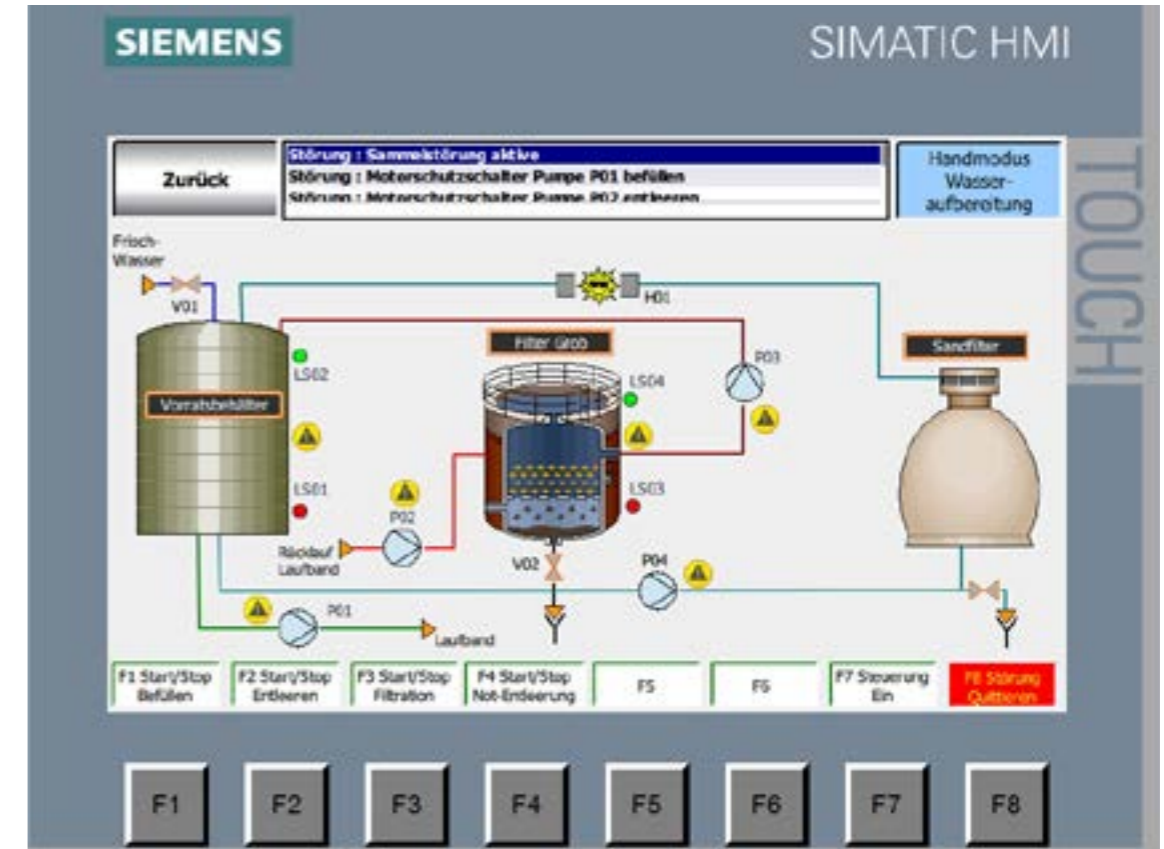


The main screen for the malfunctions is called up by pressing the display field in the in the respective image display.



The malfunctions are acknowledged with the F8 key.
The fault can only be acknowledged if the malfunction is no longer present.
So, remove the fault by repairing the parts before acknowledge the malfunction.

7.1.16 MALFUNCTIONS



The existing malfunction is indicated by a message text.
is also indicated by a flashing yellow symbol at the source of the fault.
indicated by a flashing yellow symbol

7.2 CHECKLIST START OF DAILY OPERATION

Make sure to check and/or perform the following steps every time before operating the Aquatrainer:

- Switch on main switch at electric box (position I)
- Check the filling level of the fresh water tank. The water level should be 30 cm below the upper edge of the tank. If this is not the case, the system must be switched to cleaning mode first (make sure that the waste water tank is filled with a sufficient amount of water.) If the waste water tank is empty as well, the fresh water tank must be refilled from the central water supply.



CAUTION

Please keep in mind that the tanks are not monitored by the sensors during the cleaning process. This means you have to make sure that a sufficient amount of water is in the waste water basin in order for the cleaning process to work. Running the cleaning mode without water may result in pump damage.

- Open both doors of the Aquatrainer and check for foreign objects on the treadmill and around the front and rear tread plates.



CAUTION

Every sharp-edged or hard foreign object (metal, stones etc.) can damage the belt, the mechanical system or the pump mechanism.

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- Make sure that the ramps are securely fastened within their hinges and check the slats for damage. This only applies to Aquatrainer systems without a pit.
- Close both doors and activate the control at the control panel (switch CONTROL).



CAUTION

Before start-up, make sure that all power connections have been installed correctly.

- Start up the treadmill by activating the “treadmill” main switch, turn the treadmill on manual mode and let it run by 3km/h to make proper checks.
- From the operator’s platform, conduct a visual damage inspection of the treadmill belt while in operation.



CAUTION

If the treadmill belt is damaged, please contact customer service. Do not, under any circumstances, operate the machine without first consulting customer service.

- Switch the treadmill off at the control panel.
- At the control panel, start the filling process with button “Start Fill” and let water rise up to the treadmill level, then stop the filling process by pressing the button “Start/Stop Fill” again.
- At the control panel, start the draining process by activating “drain container” switch. Stop draining process after approx. 5 seconds by pressing “drain container” switch again. The “drain container” light goes out.
- Deactivate control (“Steering on”) and turn the key switch “open hatches” to position I (only for systems with optional electrical hatch lock).
- Repeat step 1.
- Open entry door far enough to enable free access to the system. Open exit door/hatch as well, but only wide enough for one person to exit the container easily.
- The system is now ready to work.

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7.3 INSTRUCTION FOR DAILY OPERATION

Make sure to check and/or perform the following steps before starting daily operation.

- Chapter 7.1 Checklist start of work



CAUTION

Allways work as a team of two on the Aquatrainer to ensure the highest possible degree of safety for the horses. One person should guide and look after the horse while the second person is monitoring the system.

Leading the horse and training.

- Calmly but quickly lead the horse on a leading rope or chain through the large open hatch into the container. Hand over the leading rope to the second person on the operating platform. Leave the container. Close and lock the front hatch (small hatch), then close and lock the big hatch. Only now may the person on the operating platform activate the controls ("controls" switch). Start the treadmill with the treadmill switch and set a speed of 4-5 km/h in the manual mode. . Adjust speed so that the horse can move on the treadmill at a steady pace.



CAUTION

Please make sure to stay in front of the horse at all times..

Filling Container

- Start the filling process by following the steps at [Page 24](#). The water level will now rise above the treadmill. The horse will start to adjust its movement pattern to the rising water level. Once the desired water level is reached, stop the filling process by pressing the "fill container" switch once again.

Adjusting waterlevel and treadmill speed

- The water level can be elevated by pressing the "fill container" switch. Once the desired water level is reached, stop the filling process by pressing the "fill container" switch once again. The water level can be reduced by following the step at [Page 25](#). Once the desired water level is reached, stop the draining process by pressing the "drain container" switch once again. The treadmill speed can be continuously adjusted from 1 to 14 km/h (depending on treadmill type).



CAUTION

When adjusting the treadmill speed always make sure that the horse notices and adapts to the change. Always adjust speed very gradually and keep your eyes on the horse.

Finishing training unit

- Follow the steps at [Page 25](#). The water will be pumped off to below treadmill level. Stop the draining process by pressing the "drain container" switch. This is the case if the light of the "drain container" double switch goes out. Now slowly minimize treadmill speed by turning the control knob anticlockwise. Then turn off the treadmill by pressing the button „STOP“. Likewise, turn off control by pressing the "controls" button. Now turn the key switch to open the hatches (switch position I) if an electrical hatch lock is installed. The second person opens the exit door and takes over the leading rope from you (the operator).



CAUTION

After the exit door has been opened, please make sure that the horse stays still for a moment before calmly leading it out of the container.

Filtration of waste water (optional component)

- Start waste water filtration process by following the steps on [Page 30](#). The waste water will now flow through the filtration system and then into the fresh water tank. Keep checking the water levels in both tanks throughout the entire process.

Inspection of treadmill belt

- Now open the entry door and inspect the treadmill and tread plates for foreign objects and damage.

Inspection of waste filter (optional component)

- Check the filling level of the coarse filter. For safety reasons, please empty the coarse filter after 3 horses at the latest. Start the process by emptying the coarse filter with a trowel. Then remove the filter bag from the holder and clean the mesh with a hose outside of the tank container. Important: Hose the mesh from the inside out to remove as many fibers and particles as possible. Then reinsert the filter bag into its holder.



CAUTION

In any case of malfunction, unusual occurrences or system breakdown, please contact customer service immediately to have one of our experts analyze the problem and decide on how to rectify the situation. Do not, under any circumstances, operate the machine without first consulting customer service.

Ready indication

- The system is now ready for the next horse.

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7.4 CHECKLIST FINISH OF DAILY OPERATION

Make sure to check and/or perform the following steps after the last horse of the day has left the machine:

Drain system completely

- After the last horse has left the container, follow the steps on [Page 25](#) until the container is completely empty under the treadmill. Once the container is completely empty, you will hear air suction noises in the water pipe. Afterwards, the system must be flushed. Press the “filling” button to pump in fresh water. Once the water level has reached the treadmill, start the draining process by pressing the “discharging” button. Now, the container is simultaneously filled and emptied, resulting in circulation at nearly constant water levels. Now activate the treadmill by pressing the button to start the treadmill and use the buttons to adjust treadmill speed. Turn the speed to 7 to 8 km/h. Now the clogged dirt is dislodged by the combined motion of the treadmill and the water circulation and then pumped off with the waste water. This process gives the area underneath the treadmill a through cleaning. After approx. 2-3 minutes, stop filling process by pressing the “FILLING” button. Drain all of the waste water from the container and then stop the draining process by pressing the “DISCHARGING” button. Minimize treadmill speed with the rotary knob and switch off the treadmill by pressing the “ACTIVATE BELT” button. Now the area under the treadmill is thoroughly cleaned.

Cleaning area under the treadmill unit

- Once a week, you must conduct a visual inspection and thorough cleaning of the area under the treadmill after the container has been completely drained. Please make absolutely sure that the controls are switched off before performing this task. Deactivate the controls by pressing the “controls” switch. Then remove the two tread plates. Now you can check the container floor and the area under the treadmill belt for dirt. If necessary, remove dirt with a hose or a high-pressure cleaner.



CAUTION

Never use a high-pressure cleaner to clean the front ends of the rollers. Using a high-pressure cleaner may damage the radial shaft seals and thus the entire machine. Do not use a high-pressure cleaner to clean the spray nozzles of the cleaning system.

Persistent dirt can be scrubbed away with a brush. Pump off the water using the draining function, but only flush after reattaching the tread plates.



CAUTION

When reattaching the tread plates take care to avoid dirt particles being trapped between the tread plate and the base. Also make sure that the screws are securely fastened to avoid accidental loosening or damage.

Inspection treadmill belt

- Now open the entry door and inspect the treadmill and tread plates for foreign objects and damage.



CAUTION

If the treadmill belt is damaged, please contact customer service. Do not, under any circumstances, operate the machine without first consulting customer service.

Inspection ramps

- Make sure that the ramps are securely fastened within the hinges and check the slats for damage. This only applies to Aquatrainer systems without a pit.

Shut down of system

- Turn off the control panel by pressing the “controls” switch if you haven’t already. If the cleaning is still in progress, switch it off by turning the rotary knob (vertical position). The cleaning process can go on for some time after the end of operations to improve water quality in the tanks.



CAUTION

Do not leave the system unsupervised while cleaning is still in progress. Keep checking the water levels in the tanks throughout the entire process.

Depending on time requirements, the cleaning process may go on for as long as 2-3 hours with closed circulation.

Cleaning waste filter box (optional component)

- Start the process by emptying the waste filter with a hose pipe. Then remove the filter net from the holder and clean the mesh with a hose outside of the filter box. Important: Hose the mesh from the inside out to remove as many fibers and particles as possible. Then reinsert the filter net into its holder.



CAUTION

Danger of frost! When temperatures are low, please make sure that the supply pipes from the tank container to the system are covered in insulating material since the pipes may crack when exposed to freezing temperatures. In addition, make absolutely sure that the machine is never exposed to frost or temperatures below the freezing point. The manufacturer assumes no liability for damage caused by frost!

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8. MAINTENANCE AND CLEANING, MAINTENANCE SCHEDULE

Make sure that all cleaning, lubricating and maintenance work is performed by authorized experts and in full compliance with the maintenance instructions and accident prevention regulations. Failure to comply may result in injury, death or significant property damage!



CAUTION

Before starting any maintenance or cleaning procedures, make sure that the machine is switched off and secured against restarting.



CAUTION

Dispose of old lubricants in an environmentally responsible manner! To refill the oil always use an appropriate funnel or oil can to prevent oil stains on the floor. Also see Section 4, "Safety Instructions – Basic Safety Measures For Start-Up, Repair and Maintenance Procedures" Make sure to disconnect the control voltage before conducting any welding work.

8.1 DAILY MAINTENANCE AND CHECKUP

Continuous inspection and monitoring is necessary to avoid malfunctions and quality defects. Immediately switch off the machine if any malfunctions occur.

The daily maintenance schedule is comprised of three steps:

- Cleaning the system
- Visual inspection of the wear and tear parts (mainly the belt)
- Inspection of display equipment

8.2 REPLACEMENT OF WEAR AND TEAR PARTS

The service life of the belts essentially depends on the type of use. Therefore, no universal statements can be made about the service life of the belts. However, keep in mind that pieces of rubber can separate from a worn-out belt and that an old belt may tear apart, resulting in accidents. Therefore, never delay replacing a worn-out belt. Speaking from experience, a belt has an approximate service life of 1500 to 2000 hours of operation. Please refer to the "Overview of Wear and Tear Parts" in the appendix for the service life spans of other wear and tear parts.

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8.3 MAINTENANCE INTERVALS



CAUTION

Maintenance work must be performed at the specified intervals to prevent malfunctions and breakdowns. Refer to the maintenance schedule in the appendix to find out about maintenance intervals.



CAUTION

Make sure to remedy any defects before turning the machine back on!

Besides the maintenance tasks described above, make sure to conduct the tasks described in the maintenance instructions within the recommended periods. Regular care prolongs the service life of the machine. Diligently filled-out maintenance charts help the maintenance staff to draw conclusions about the condition of the system.

Maintenance instructions for the individual components can be found in the respective instruction manuals / maintenance instructions in the appendix.

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9. MALFUNCTIONS AND TROUBLESHOOTING

Besides the maintenance tasks described above, make sure to conduct the tasks described in the maintenance instructions within the recommended periods. Regular care prolongs the service life of the machine. Diligently filled-out maintenance charts help the maintenance staff to draw conclusions about the condition of the system.

Maintenance instructions for the individual components can be found in the respective instruction manuals / maintenance instructions in the appendix.

[Page 40 „Malfunctions“](#)

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10. REPAIR PARTS

Ordering spare parts

The ordering process for spare parts as follows:

Contact customer service hotline for specification
Description to identify the correct spare part

To complete your spare parts order as smoothly and efficiently as possible, we need the following information::

- Typ of machine: Aquatrainer horse version 1.1
- Configuration (waste filtration, full filtration)
- Description of spare part
- Quantity

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11. APPENDIX

11.1 OVERVIEW OF WEAR AND TEAR PARTS

This overview lists the most important wear and tear parts and will be supplemented as needed. Not all wear and tear parts can be listed here.

Treadmill belt

- Rubber treadmill belt, suitable for wet operation, 3 layers, axially stable, with fabric layer backing. Assuming normal operation and abrasion, the service life of the belt is estimated to be approx. 2000 to 2500 hours of operation. Increased abrasion caused by horseshoes reduces the belt's service life. If there is visual damage due to foreign objects, please contact the manufacturer immediately to ensure operational safety. Delivery time approx. 2-3 weeks.

Door seals

- Door seal made from EPDM as double lip seal with clamping rail. Clamping rail 3-5 mm, V2A clamps. In case of damage the entire door seal must be replaced because otherwise the doors won't be fully sealed when closed. Delivery time approx. 2-3 weeks.

11.2 OVERVIEW OF MOVING PARTS

This overview lists the most important moving parts and will be supplemented as needed. Not all moving parts can be listed here.

Drum Motor Master Drive

- Drive motor and transmission as drum motor for underwater operation. Manufactured by Van der Graaf BV, Netherlands. Output 5.5 KW, combined motor and transmission unit. Delivery time for replacement approx. 3-4 weeks. Repair approx. 4-5 weeks. Depending on availability and requirements, a replacement motor can be supplied for the duration of the repair work (rental charges apply).

Front Deflection Drum Roller with Tensioner

- Treadmill deflection roller for underwater operation, manufactured by Van der Graaf BV, Netherlands, with tensioner for aligning and tensioning treadmill belt. Delivery time for replacement approx. 3-4 weeks. Repair approx. 4-5 weeks. Depending on availability and requirements, a replacement deflection roller can be supplied for the duration of the repair work (rental charges apply).

Bearings

- Bearings and radial shaft seal rings of the drive motor and the treadmill deflection roller, unless they are labeled as wear and tear parts. Delivery time approx. 2-3 weeks.

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