

imop[®] Lite



OPERATING MANUAL

1.01 – 2019 D



faster



cleaner



greener



safer



better

Contents

1	General	5
1.1	<i>The product: imop lite</i>	<i>5</i>
1.2	<i>Intended operation</i>	<i>5</i>
1.3	<i>Delivery</i>	<i>6</i>
2	Safety instructions.....	7
2.1	<i>General information regarding safety</i>	<i>7</i>
2.1.1	<i>Signal words and warning symbols used</i>	<i>7</i>
2.1.2	<i>Hazard statements.....</i>	<i>8</i>
2.2	<i>Safety instructions for the operator.....</i>	<i>9</i>
2.2.1	<i>Occupational safety</i>	<i>9</i>
2.2.2	<i>Technical condition of the imop lite</i>	<i>9</i>
2.3	<i>Safety instructions for personnel</i>	<i>9</i>
2.3.1	<i>Instructions regarding the defined user and service positions</i>	<i>9</i>
2.3.2	<i>Personnel to be used and their qualifications</i>	<i>9</i>
2.4	<i>Specific components</i>	<i>10</i>
2.4.1	<i>Safety and warning labels.....</i>	<i>10</i>
2.5	<i>Specific energy systems.....</i>	<i>10</i>
2.5.1	<i>Electronics</i>	<i>10</i>
2.6	<i>Specific life cycles of the imop lite</i>	<i>12</i>
2.6.1	<i>Transport</i>	<i>12</i>
2.6.2	<i>Commissioning</i>	<i>13</i>
2.6.3	<i>Operation.....</i>	<i>13</i>
2.6.4	<i>Service and maintenance</i>	<i>13</i>
2.7	<i>Safety instructions applicable to consumables</i>	<i>14</i>
2.7.1	<i>Cleaning agent.....</i>	<i>14</i>
2.8	<i>Instructions applicable to the battery.....</i>	<i>14</i>
3	Description of the imop lite machine	16
3.1	<i>Defined working and user positions.....</i>	<i>16</i>
3.1.1	<i>The working position.....</i>	<i>16</i>
3.1.2	<i>Description of the defined user positions</i>	<i>17</i>
3.2	<i>Elements of the imop lite machine.....</i>	<i>17</i>
3.2.1	<i>Assemblies</i>	<i>17</i>
3.2.2	<i>Operating unit</i>	<i>21</i>
3.2.3	<i>Lever.....</i>	<i>22</i>
3.2.4	<i>Connections.....</i>	<i>23</i>
4	Preparation.....	25
4.1	<i>Unpacking the machine.....</i>	<i>25</i>
4.2	<i>Connecting the power supply to the power adapter</i>	<i>25</i>
5	Commissioning.....	26
5.1	<i>Before turning the machine on</i>	<i>26</i>
5.2	<i>Putting the machine into the parking position</i>	<i>26</i>
5.3	<i>Charging the machine's battery.....</i>	<i>28</i>

5.4	Turning the machine on.....	31
5.5	Stopping and turning off the machine.....	31
5.6	Removing/inserting the liquid container.....	32
5.7	Removing/inserting the suction filter.....	33
5.8	Fit the machine with cleaning brushes or pads.....	35
6	Operation.....	38
6.1	Prior to the beginning of work.....	38
6.2	Turning the machine on.....	38
6.3	Cleaning operation	38
6.4	Turn the machine off	39
6.5	After finishing work	39
7	“Error conditions”	40
8	Maintenance	42
8.1	Maintenance instructions for your safety	42
8.2	Maintenance of the machine	43
8.2.1	General repair procedure.....	43
8.2.2	Dismantling/assembling the squeegee	46
9	Repairs.....	50
10	Remedying faults.....	51
11	Shutting down, disposal	52
11.1	Shutting down and storage.....	52
11.2	Recommissioning after a shutdown.....	52
11.3	Decommissioning	53
11.4	Disposal	53
12	Technical data.....	55
13	Warranty	56
13.1	Warranty period.....	56
13.2	Processing the warranty claim.....	56
13.3	Disclaimers of warranty	56
14	Index	58
15	Declaration of conformity and manufacturer	59

1 General

This operating manual contains all the important information for installing, commissioning and operating your imop lite. It will also provide you with information and important advice regarding your safety and help with problems.

1.1 The product: imop lite

This product was manufactured in accordance with the applicable national standards and guidelines, and serves to clean hard surfaces which are neither sensitive to moisture or polishing.

1.2 Intended operation

The machine is intended for use in accordance with the following:

- The machine must only be used to clean hard surfaces that are not sensitive to either moisture or polish.
- The machine may only be used inside buildings.
- The operational temperature range of the machine is between +5°C and +40°C.
- The machine is intended for commercial use, e.g. in hotels, schools, hospitals, factories, shops, offices, small businesses, etc.
- The machine is not suitable for cleaning frozen surfaces/floors.
- The machine may only be used by persons who have been trained to operate it, have proven their ability to use it and have been specifically instructed to do so.
- The machine is not intended to be used by persons with reduced physical, sensory or mental capabilities, or with a lack of experience and/or knowledge (including children).
- The machine may only be equipped and operated with original accessories and spare parts.
- The machine may only be operated with the installed safety devices.
- The safety and operational instructions contained in this operating manual must be complied with.
- The operational instructions of the operator must be complied with.
- The relevant accident prevention regulations, as well as other, generally recognized safety and operational rules must be complied with.
- Any unauthorized modifications to the machine shall void the liability of the manufacturer for any resulting damages.
- Flooring must be checked to ensure it is suited to the cleaning process before using the machine.
- The manufacturer shall not be liable for damage to the machine or the flooring that is to be cleaned caused by use of the wrong brushes, pads, or cleaning agents.
- The device may only be opened up by customer service.

The following points will be considered improper operation:

- Use on unsuitable types of flooring
- Use of unsuitable cleaning agents
- Use of the wrong polishing pads
- Outdoor use
- Operation by unauthorized persons
- Operation during which there is failure to comply with the safety regulations
- Operation using deactivated or modified/defective safety devices
- Performing cleaning while connected to the power adapter
- Cleaning frozen surfaces/ground

1.3 Delivery

Please check that the delivery is complete and intact. If any of the parts are missing or defective, please contact your supplier immediately.

- 1 imop lite machine
- 1 power adapter with connecting cable for charging the battery
- 1 battery
- 1 operating manual
- 1 set of brushes
- 1 squeegee sheet set

	Warning	Suffocation hazard for children! Keep packaging film away from children. Please dispose of the packaging in an environmentally friendly way!
---	----------------	---

2 Safety instructions

The following basic safety instructions must be observed every time you use the imop lite.

Please carefully read through the following safety instructions and information regarding the safe operation of the imop. Please familiarize yourself with all the functions of the imop lite. Be careful to keep this operating manual near the imop lite and give it to other operators, if necessary. The imop lite may only be passed on to third parties if you also provide them with the operating manual.

2.1 General information regarding safety

2.1.1 Signal words and warning symbols used

Symbol	Signal word	Definition
	Danger	Notice indicating risk of death disregarded
	Warning	Notice indicating potential risk of serious injury or death if disregarded
	Caution	Notice indicating the potential for minor injury if disregarded
	depending on the severity of the hazard	Notice indicating electrical hazards
	depending on the severity of the hazard	Notice indicating magnetic hazards
	Important	Here, an piece of information which is important for the function is given.
	Info, tip	General information or specific tips

2.1.2 Hazard statements



Warning

Risk of injury or death by electrocution!

The imop lite machine uses a current of 110–240 V AC at the power adapter input. Given that electric shocks of as low as 50/60 mA can be deadly, appropriate precautions must be taken.

Measures

- In case of danger, disconnect the power adapter from the power source immediately.
- Do not touch any live parts.
- Report any damaged cables to maintenance personnel immediately.
- Maintenance work may only be carried out by trained personnel.



Caution

Risk of injury and/or property damage by using the machine incorrectly!

Measures

- Damage caused by using the wrong material
- Damaged caused by overloading
- Endangering persons due to a lack of qualifications and/or operating errors on the part of the operating personnel
- Follow the instructions regarding the intended operation.
- Never exceed the permissible technical limit values.
- Do not work with the imop lite if you
 - do not have the necessary qualifications,
 - have not received a full briefing from the operator,
 - have not read or understood this operating manual in full.

	Caution	Risk of injury and/or property damage being caused by irregularities in relation to the machine!
		- Leakages in the machine - Discharge of foam or liquid
	Measures	- Follow the instructions regarding the intended operation. - Turn the machine off immediately.

2.2 Safety instructions for the operator

2.2.1 Occupational safety

When operating the imop lite machine, national occupational health and safety regulations, the requirements of the statutory accident insurance funds and company guidelines must be observed/complied with.

2.2.2 Technical condition of the imop lite

All unauthorized modifications to or manipulation of safety devices in the imop lite machine are prohibited.

2.3 Safety instructions for personnel

2.3.1 Instructions regarding the defined user and service positions

Safe operation can only be guaranteed by using the user positions described in this operating manual (see Section 3.1 “Defined working and user positions”).

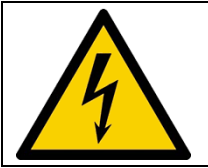
2.3.2 Personnel to be used and their qualifications

- Users must have received a briefing on the machine from the operator.
- The user must be at least 18 years of age.
Exception: Use for the purpose of professional training which is carried out under management and supervision. This is not considered independent control of the device.
- Users must have sufficient knowledge of the relevant language.
- Users must have sufficient physical, sensory, and mental capabilities.

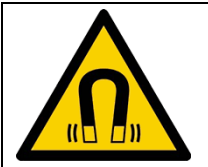
2.4 Specific components

2.4.1 Safety and warning labels

Parts of the machine which pose an electrical hazard are identified using the warning symbol below.



The liquid containers (for fresh water and waste water), as well as the waste water hose connection of the imop lite are attached to the machine using strong magnets. A strong magnet is also used to secure the drive unit in the parking position. The magnets are identified using the warning symbol below.



2.5 Specific energy systems

2.5.1 Electronics

- The power adapter may only be connected to electrical outlets that have been installed by an electrician in accordance with IEC 60364-1.
- Never touch the power adapter with wet hands.
- Make sure not to break or damage the power cord by running over, crushing, or tearing it or doing anything similar.
- Protect the cable from heat, oil, and sharp edges.
- The power cord must be regularly checked for damage such as cracks or ageing. If damage is found, the cable must be replaced before being used further.
- The battery may only be charged using the power adapter supplied. No other power adapters may be used. The charge level can be checked using the indicator on the battery.
- Check the battery for damage before each use. Do not continue to use a damaged battery.

- Do not use the battery when it is dirty or wet.
- Do not use the battery in environment where there is an explosion hazard.
- Keep the battery away from heat, sharp edges, oil, and moving parts.
- Do not cover the battery when it is charging and keep the ventilation grille of the power adapter clear.
- Do not open the battery. Have any repairs carried out by specialist personnel.
- Do not charge a damaged battery. If a battery is damaged, replace it.
- The battery contacts must not come into contact with any of the metal parts, as this poses a risk of short circuiting.
- Do not store the battery together with metal objects, as this poses a risk of short circuiting.
- Do not place tools or any similar items on the battery contacts. This poses a risk of short circuiting.
- Never put the battery near an open flame or sparks, or smoke in its vicinity. This poses an explosion hazard!
- Do not dispose of the battery in fire or household waste.
- Avoid contact with any liquid leaking from a defective battery. If you accidentally come into contact with any such liquid, rinse it with water. If it comes into contact with your eyes, also consult a doctor.
- Never charge the imop light using the power adapter during cleaning!
- It is absolutely essential to comply with the operating instructions from the battery and power adaptor manufacturer. Please observe the recommendations of the legislature in relation to handling and transporting batteries.
- Used batteries are to be disposed of in an environmentally friendly manner using suitable collection systems, in accordance with national regulations and guidelines.
- Never leave or store the battery in a discharged condition, but rather charge it as soon as possible prior to this.
- The battery must always be kept clean and dry to prevent leakage currents. Protect the battery from contamination, e.g. using metallic powder.
- The machine, especially the battery, may only be cleaned with a damp cloth. Do not clean it using a hose or steam jet!

2.6 Specific life cycles of the imop lite

2.6.1 Transport

Risk of injury or damage!

- Take the weight of the imop lite into account when transporting it.
- When transporting the imop lite and the power adapter in vehicles, secure it in accordance with the applicable guidelines to protect against slipping and tipping.
- Carry the imop light using the handle and use your other hand to stop the steering column tipping over (Figure 1).
- Move the imop lite using the transport castors (Figure 2).
 - Use the transport castors on an even surface only.
 - Do not use the transport castors to move it over steps and curbs.



Figure 1: Carrying the machine using the handle and handlebars



Figure 2: Moving the imop lite using the transport castors

2.6.2 Commissioning

The initial commissioning of the imop lite is generally carried out by our authorized dealers.

2.6.3 Operation

Cleaning with the imop lite can be completed within around 45 min., depending on the flooring. After this, the battery must be charged.

2.6.4 Service and maintenance

- Repairs may only be carried out by authorized after sales service centers or qualified specialist personnel who are familiar with all the relevant safety regulations.
- Please observe the safety checks in accordance with the applicable local regulations for portable devices used for commercial purposes.
- The machine must be turned off prior to maintenance or cleaning. In addition, the battery must be removed from the machine before replacing any parts.

2.7 Safety instructions applicable to consumables

2.7.1 Cleaning agent

The recommended cleaning agent. Do not use any cleaning solution with a pH value of under three or above 11, to prevent damage to sensitive components such as hoses and valves.

- The products are safe to use as they do not contain any acids, alkalis or substances that are damaging to the environment.

2.8 Instructions applicable to the battery

The imop lite uses an Li-ion battery.

Handling and operation:

- The battery may only be charged using the power adapter supplied. No other power adapters may be used. The charge level can be checked using the indicator on the battery.
- Check the battery for damage before each use. Do not continue to use a damaged battery.
- Do not use the battery when it is dirty or wet.
- Do not use the battery in environment where there is an explosion hazard.
- Keep the battery away from heat, sharp edges, oil and moving parts.
- Do not cover the battery when it is charging and keep the ventilation grille of the power adapter clear.
- Do not open the battery. Have any repairs carried out by specialist personnel.
- Do not charge a damaged battery. If a battery is damaged, replace it.
- The battery contacts must not come into contact with any of the metal parts, as this poses a risk of short circuiting.
- Do not store the battery together with metal objects, as this poses a risk of short circuiting.
- Do not place tools or any similar items on the battery contacts. This poses a risk of short circuiting.
- Never put the battery near an open flame or sparks, or smoke in its vicinity. This poses an explosion hazard!
- Do not dispose of the battery in fire or household waste.
- Avoid contact with any liquid leaking from a defective battery. If you accidentally come into contact with any such liquid, rinse it with water. If it comes into contact with your eyes, also consult a doctor.
- Never leave or store the battery in a discharged condition, but rather charge it as soon as possible prior to this.

- The battery must always be kept clean and dry to prevent leakage currents. Protect the battery from contamination, e.g. using metallic powder.

Cleaning:

- The battery may only be cleaned using a damp cloth. Do not clean it using a hose or steam jet!

Transport and storage:

- Please observe the recommendations of the legislature in relation to handling and transporting batteries.
- Used batteries are to be disposed of in an environmentally friendly manner using suitable collection systems, in accordance with national regulations and guidelines.

3 Description of the imop lite machine

This section defines the working position for when using the machine as well as providing an overview of the controls.

3.1 Defined working and user positions

This contains a description of the working position which must be adopted when using the machine.

- The working position is located behind the machine.
- It is turned on by preselecting the operating mode using the operating unit and by pressing the lever on the left or right handle.



Important

Improper use

The machine is not intended to be used from other positions. These positions are therefore not permitted when operating the machine!

The machine can only be operated safely by using the working and user positions described here.

3.1.1 The working position

The working position is always located behind the shaft of the machine (Figure 3).



3.1.2 Description of the defined user positions

The following description contains a description of the user positions which must be adopted when using the machine.

Description of the defined user positions:

Operation...	Authorized activities
... of the operator panel	- Setting the brushing program - Turning the turbine on - Turning on the water supply - Setting up ECO mode
... of the lever	- Starting up/stopping the machine
... of the connections	- 110–240 V: external the power adapter connected to the charging plug

3.2 Elements of the imop lite machine

In this section, you will be given an overview of the most important elements of the machine and their function.

3.2.1 Assemblies

This section contains an overview of the most important assemblies of the imop lite and their function.



Figure 4: Operating unit



Figure 5: Handlebar grip with lever



Figure 6: Drive and suction unit



Figure 7: Liquid container (fresh water, waste water), suction filter



Figure 8: Power adapter



Figure 9: Battery with charge level indicator

Description of assemblies:

Position	Use	Authorized activities
Figure 4	Shaft including operating unit	Contains the components for turning on, starting up and stopping, setting operating modes
Figure 5	Handlebar grip with lever	Pressing the lever to start or stop the preset cleaning functions

Position	Use	Authorized activities
Figure 6	Drive and suction unit	Attaching and detaching the suction line, cleaning brushes or pads
Figure 7.1	Liquid container – fresh water	Attaching and detaching the container, filling and emptying the container
Figure 7.2	Liquid container – waste water	Attaching and detaching the container, emptying the container
Figure 7.3	Suction filter	Attaching and detaching the suction filter
Figure 8	Power adapter	Connecting the power adapter to the 230 V AC mains supply to provide power, connecting the power adapter to charge the battery
Figure 9	Battery	Removing the battery from and inserting it into the machine, charging the battery

3.2.2 Operating unit

Here, you will be given an overview of the controls of the machine and their function.

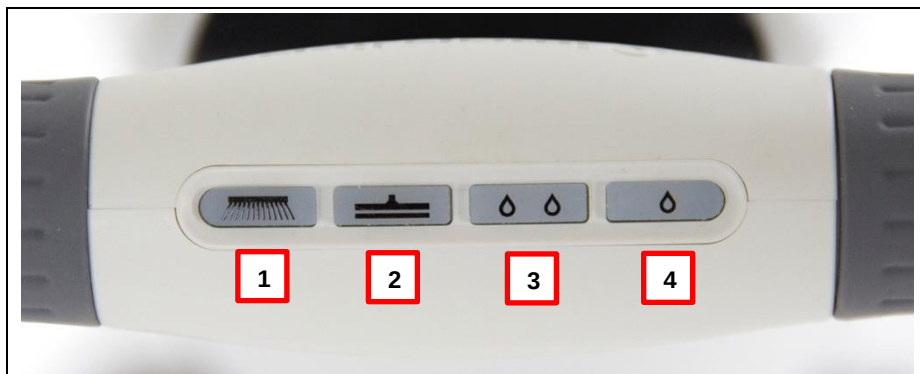


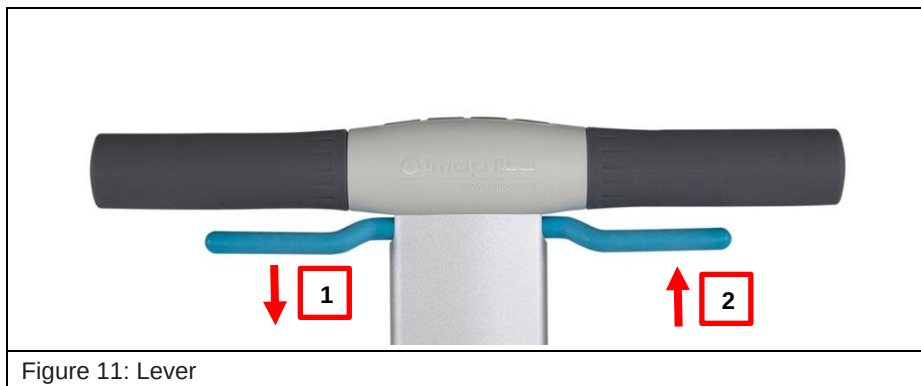
Figure 10: Operating unit – operating modes

Description of operating unit/operating modes:

Position	Description	Function
Figure 10.1	brush	Turning the brush function on and off
Figure 10.2	turbine	Turning the suction function on and off
Figure 10.3	water	Turning the cleaning fluid on and off
Figure 10.4	eco	Turning the cleaning fluid on and off (this is timed, 3 seconds for on and 2 seconds for off)

3.2.3 Lever

The preset functions, e.g. the brushes, are turned on using the lever on the left or right handle.



Description of lever:

Position	Description	Function
Figure 11.1	Lever not pressed down	all functions of the machine are turned off
Figure 11.2	Lever pressed down	all the preset functions of the machine are turned on

3.2.4 Connections

The power adapter connected to the 230 V AC mains supply via a connection cable with a euro plug.



Danger

Risk of death by electrocution!

Only use the power adapter for charging the battery!
Please also observe the safety instructions (see Section 2
“Safety instructions”).

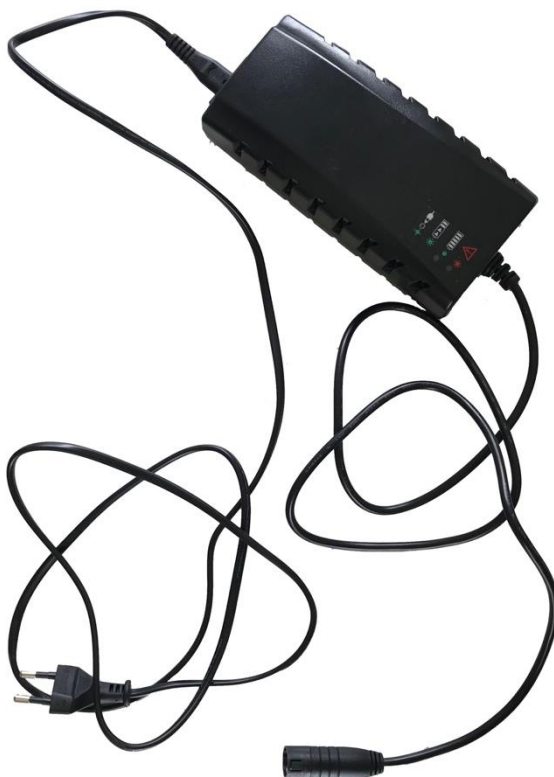


Figure 12: Mains connection and charging plug of the power adapter



Figure 13: Charging connector on the battery

The power adapter is connected to the lower side of handle of the battery.

Description of connections:

Position	Description	Function
Figure 12	Mains connection and charging plug of the power adapter	Providing the mains power supply to the power adapter to be connected to the battery via the euro plug or charging plug.
Figure 13	Charging connector on the battery	Connecting the charging plug of the power adapter to the battery

4 Preparation

4.1 Unpacking the machine

The technical data are summarized in the data sheet.



Warning

Risk of injury by tipping the machine!

The machine can tip over if put in an inclined position!

There are no particular requirements for unpacking, (temporary) storage in the transport packaging does not pose any problems either. Store the imop lite on level, firm ground to prevent it from tipping.



Important

Recycling note:

Dispose of the packaging material (carton/designated films) in an environmentally friendly way.

4.2 Connecting the power supply to the power adapter

Connection to the mains supply is provided via the euro plug on the power cord of the power adapter. The following instructions must be observed.

Voltage

Only connect the mains connector to the voltage stated on the rating plate

Electrical connection

Lay the supply cable in a way that does not create a tipping hazard.

The battery is connected to the power adapter via the charging plug of the power adapter. The battery can be charged when within the machine as well as when removed from it.



Important

The machine is not intended nor permitted to be operated with the power adapter connected.

5 Commissioning

5.1 Before turning the machine on

Before beginning work, sufficiently familiarize yourself with the following:

- the controls
- how it is equipped
- how it functions
- the immediate environment
- the safety devices

5.2 Putting the machine into the parking position

The machine should be put into the parking position or stopped in the parking position when performing preparatory measures or maintenance, as well as when not in use.



Important

When folding the machine up onto the shaft, always keep one hand up on the handlebars to prevent it from falling over/tipping.

Putting the machine into the parking position:

Step	Activity	Explanation/illustration
1	Folding up the drive and suction unit	Folding up the machine against the handlebars using the handle on the drive and suction unit until the retaining magnet can hold the drive and suction unit itself. Figure 14
2	Putting the machine into the parking position	...



5.3 Charging the machine's battery

See also Section 4.2 "Connecting the power supply to the power".

The battery can be charged when within the machine or removed from it.

Only remove the battery after the machine has been stopped and turned off.

Removing/inserting the battery:

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 "Stopping and turning off the machine"
2	Putting the machine into the parking position	See section 5.2 "Putting the machine into the parking position"
3	Removing the battery	Release the battery by pushing back the retaining plate. The battery will slightly raise due to the spring force. Further removal by hand can be executed by lifting it upward.
4	Inserting the battery	Insert the battery into the guide and then push against the spring force until the retaining plate latches



Figure 15: Removing the battery

Charging the battery and checking the charge level:

Step	Activity	Explanation/illustration
1	Opening the cap of the charging jack on the battery	Figure 16
2	Connecting the power adapter to the battery	Figure 17
3	Checking the charge level of the battery	The charge level of the battery is displayed when you press the power switch of the charging indicator. Figure 18

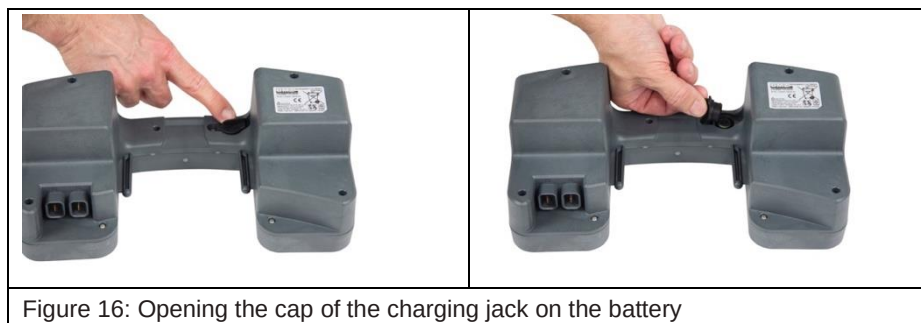




Figure 17: Connecting the power adapter to the battery

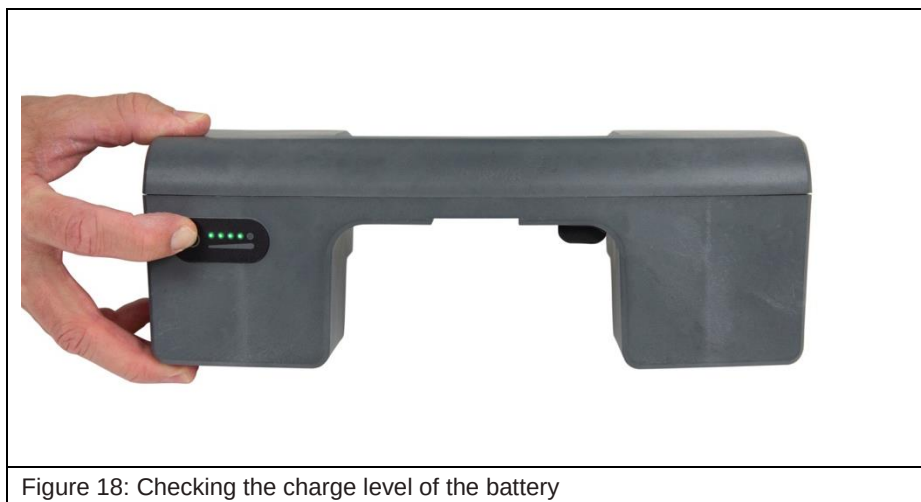


Figure 18: Checking the charge level of the battery

5.4 Turning the machine on



Warning

Please observe the safety instructions!

You may only switch the machine on after observing the aforementioned instructions.

Please also observe the safety instructions (see Section 2 "Safety instructions").

Preparing for start up

- Check that the power adapter is disconnected from the battery.
- Check that the battery has a sufficient level of charge.

Turning the machine on:

Step	Activity	Explanation/illustration
1	Setting the operating mode	Choose the mode you want using the buttons of the operating unit at the top of the shaft.
2	Turning the machine on:	This can be done by pressing the lever on the left or right handle of the shaft
3	Checking the wear limit of the brushes or pads	The brushes or pads must still have a certain remaining thickness, otherwise the driver may come into contact with the ground
3	Checking and correcting the levels of the liquid container	- Level of the cleaning fluid in the fresh water container - Level of the waste water container

5.5 Stopping and turning off the machine

Stopping and turning off the machine:

Step	Activity	Explanation/illustration
1	Stopping the machine	This can be done by letting go of the lever on the left and right handle of the shaft

Step	Activity	Explanation/illustration
2	Turn the machine off	This is done by choosing the operating mode

5.6 Removing/inserting the liquid container

The liquid container may only be removed after the machine has been stopped. Both of the liquid containers are removed and inserted in a corresponding way.



Important

Do not tilt the container too much when removing it as this may damage the tank inlet.

Removing/inserting the liquid container:

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 “Stopping and turning off the machine”
2	Putting the machine into the parking position	See Section 5.2 “Putting the machine into the parking position”
3	Removing the liquid container	Releasing the liquid container from the magnet holder by tilting it slightly and then lifting it from the machine. Figure 19
4	Inserting the liquid container	Inserting the liquid container by following these steps in reverse order



Figure 19: Removing the liquid container

5.7 Removing/inserting the suction filter

The suction filter may only be removed after you have removed the waste water container. Only remove the waste water holder after you have stopped the machine.

Removing/inserting the suction filter:

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 “Stopping and turning off the machine”
2	Putting the machine into the parking position	See Section 5.2 “Putting the machine into the parking position”
3	Removing the waste water container	Releasing the waste water container from the magnet holder by tilting it slightly and then lifting it from the machine. See Section 5.6 “Removing/inserting the liquid container”
4	Remove the suction filter	Releasing the suction filter from beneath the rubber holder by tilting it slightly and pulling it out. Figure 20

5	Inserting the suction filter	Inserting the suction filter into the rubber holder from below and tilting it up into the suction inlet socket. Figure 21
6	Inserting the waste water container	Inserting the waste water by following these steps in reverse order. See section 5.6 “Removing/inserting the liquid container”



Figure 20: Remove the suction filter



Figure 21: Inserting the suction filter

5.8 Fit the machine with cleaning brushes or pads

Fitting the cleaning brushes or pads after you have stopped the machine.



Important

When folding the removing or fitting the cleaning brushes or pads to the machine, always keep one hand up on the shaft to prevent it from falling over/tipping.

Fitting the machine with cleaning brushes or pads:

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 "Stopping and turning off the machine"
2	Putting the machine into the parking position so you can reach the cleaning brushes or pads unhindered	See Section 5.2 "Putting the machine into the parking position"
3	Removing the liquid container if required	See Section 5.6 "Removing/inserting the liquid container"
4	Removing the squeegee	Figure 22

Step	Activity	Explanation/illustration
5	Removing the existing cleaning brushes	Releasing the cleaning brushes or pads from the locking mechanism by gently turning them clockwise and then removing them by lifting them from the mounting. Figure 23
6	Fitting the cleaning brushes or pads	The fitting is done by following these steps in reverse order. Inserting new cleaning brushes or pads into the mounting and locking them by gently turning them counter-clockwise



Figure 22: Removing the squeegee





Figure 23: Removing cleaning brushes

6 Operation

In this section, you will learn

- which tasks must be carried out prior to the beginning of work and after work has been finished,
- how the machine and its various functions are operated.

6.1 Prior to the beginning of work

The following tasks must be performed on the machine prior to the beginning of work.

Step	Activity	Explanation/illustration
1	Charging the battery if necessary	See Section 5.3 “Charging the machine’s battery”
2	Putting the machine into the parking position so you can reach the cleaning brushes or pads unhindered	See Section 5.2 “Putting the machine into the parking position”
3	Fitting the cleaning brushes or pads	See Section 5.8 “Fit the machine with cleaning brushes or pads”
4	Filling the fresh water container; max. 3 L	See Section 5.6 “Removing/inserting the liquid container”

6.2 Turning the machine on

See Section 5.4 “Turning the machine on”

6.3 Cleaning operation

- The machine can be moved forwards, to the side and backwards by pushing and pulling the shaft.
- Do not move the machine forwards and backwards with sudden, jerky motions.



Important

Do not suck up any more liquid with the machine than has been sprayed.

6.4 Turn the machine off

See Section 5.5 “Stopping and turning off the machine”

6.5 After finishing work



Important

When folding the removing or fitting the cleaning brushes or pads to the machine, always keep one hand up on the shaft to prevent it from falling over/tipping.

The following tasks must be performed on the machine after finishing work:

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 “Stopping and turning off the machine”
2	Putting the machine into the parking position so you can reach the cleaning brushes or pads unhindered	See Section 5.2 “Putting the machine into the parking position”
3	Charging the battery if necessary	See Section 5.3 “Charging the machine’s battery”
4	Removing the liquid container	See also Section 5.6 “Removing/inserting the liquid container”
5	Disposing of any unused cleaning solution	...
6	Disposing of the waste water	...
7	Remove and clean the cleaning brushes or pads	See Section 5.8 “Fit the machine with cleaning brushes or pads”

7 “Error conditions”

This section contains information about possible malfunctions and fixing them as well as support regarding malfunctions or errors.



Warning

Please observe the safety instructions!

In the event of a fault, turn the machine off immediately (see section 5.5 “Stopping and turning off the machine”) and protect it against being turned on accidentally. Only turn the machine on once the error status has been completely remedied. Please also observe the safety instructions (see Section 2 “Safety instructions”).

Before checking the following error list:

make sure that

- that you have strictly adhered to the information contained in this operating manual,
- there has been no improper use (see Section 1.2 “Intended operation”).

Use the following list of errors to check whether the errors or faults is described there and whether the described measures fix the error or fault.

If the problem cannot be resolved, consult a specialist.

Error list:

Error/fault	Cause	Remedy/measure
The cleaning brushes or pads are no longer turning	The battery is discharged or not properly latched	Charging the battery or latching it correctly
	The cleaning brushes or pads are mechanically stuck	Unblocking the mechanical locking of the cleaning brushes or pads
	Shaft angle to floor is too low	Lift handle to increase shaft angle to the floor
No suction power	Battery discharged	Charge the battery

Error/fault	Cause	Remedy/measure
Machine has stopped and will no longer start up again	The battery is either discharged or not properly latched	Charging the battery or latching it correctly
Insufficient suction power	The waste water tank is not correctly inserted into the machine	Inserting the waste water tank in the machine correctly
	The waste water sieve is dirty/clogged	Cleaning the waste water sieve
	The squeegee is dirty/clogged	Cleaning the squeegee
	The waste water tank cap is open	Close the cap
	The suction tube is not properly attached	Attaching the suction tube properly
	The suction tube and/or suction channel is dirty/clogged	Cleaning the suction tube and/or suction channel
Inadequate cleaning performance	The cleaning brushes or pads are worn out	Replacing the cleaning brushes or pads

8 Maintenance

This Section contains only the most important instructions regarding the maintenance of the machine.

8.1 Maintenance instructions for your safety

This contains general information on the things you must bear in mind during all maintenance and servicing work.



Important

Servicing work may only be carried out by trained staff when disconnected from the power source.



Caution

Risk of damage for the machine caused by the leaking of water. Empty or remove the waste water and fresh water tank before performing maintenance work on the machine.



Danger

Please observe the safety instructions!

When carrying out maintenance work there is a risk of injury if the safety instructions are not observed. It is absolutely essential to observe the following specific safety instructions for maintenance work.

Please also observe the safety instructions (see Section 2 "Safety instructions").

Safety instructions for maintenance work:

Possible hazards caused by...	Prevention measures
Crushing by the moving parts of the machine	When carrying out test runs always keep a safe distance from all moving parts
Impacts/blows caused by the machine falling over/tipping	When working on the machine always hold the handlebars securely with one hand so that the machine does not fall over or tip
Electrical shocks	- Remove the battery from the machine before beginning the work. - Disconnect the power adapter from the power outlet. - Protect the machine from being turned on again accidentally

unsuitable spare parts	- Always replace self-locking screws and nuts - Use spare parts that are contained in the spare parts list only
unauthorized/premature approval of the equipment	Do not approve the machine for use without functioning safety devices

8.2 Maintenance of the machine

This contains find general information regarding which the maintenance work must be performed on the machine at appropriate intervals.

	Important	When folding the removing or fitting the cleaning brushes or pads to the machine, always keep one hand up on the shaft to prevent it from falling over/tipping.
---	------------------	---

8.2.1 General repair procedure

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 "Stopping and turning off the machine"
2	Putting the machine into the parking position so you can reach the cleaning brushes or pads unhindered	See Section 5.2 "Putting the machine into the parking position"
3	Removing the battery from the machine	See Section 5.3 "Charging the machine's battery"
4	Removing and emptying the liquid container	See 5.6 "Removing/inserting the liquid container"
5	Detach the suction filter	See Section 5.7 "Removing/inserting the suction filter"
6	Detaching the squeegee and removing the cleaning brushes or pads	See Section 5.8 "Fit the machine with cleaning brushes or pads"
7	Removing the suction hose waste water	Figure 24
8	Cleaning and rinsing the hose, filter and squeegee	Cleaning the hose, filter and squeegee under running water

Step	Activity	Explanation/illustration
9	Cleaning the rest of the machine	Only clean the machine with a damp cloth! Never clean it with a water jet!
10	Reassembling it by following these steps in reverse order	...







Figure 24: Removing the suction hose waste water

8.2.2 Dismantling/assembling the squeegee

Step	Activity	Explanation/illustration
1	Stopping and turning off the machine	See Section 5.5 “Stopping and turning off the machine”
2	Putting the machine into the parking position so you can reach the cleaning brushes or pads unhindered	See Section 5.2 “Putting the machine into the parking position”
3	Removing the battery from the machine	See Section 5.3 “Charging the machine’s battery”
4	Detaching the squeegee and removing the cleaning brushes or pads	See section 5.8 “Fit the machine with cleaning brushes or pads”
5	Dismantling and assembling the squeegee	Figure 25
6	Attaching the squeegee to the machine	Figure 26

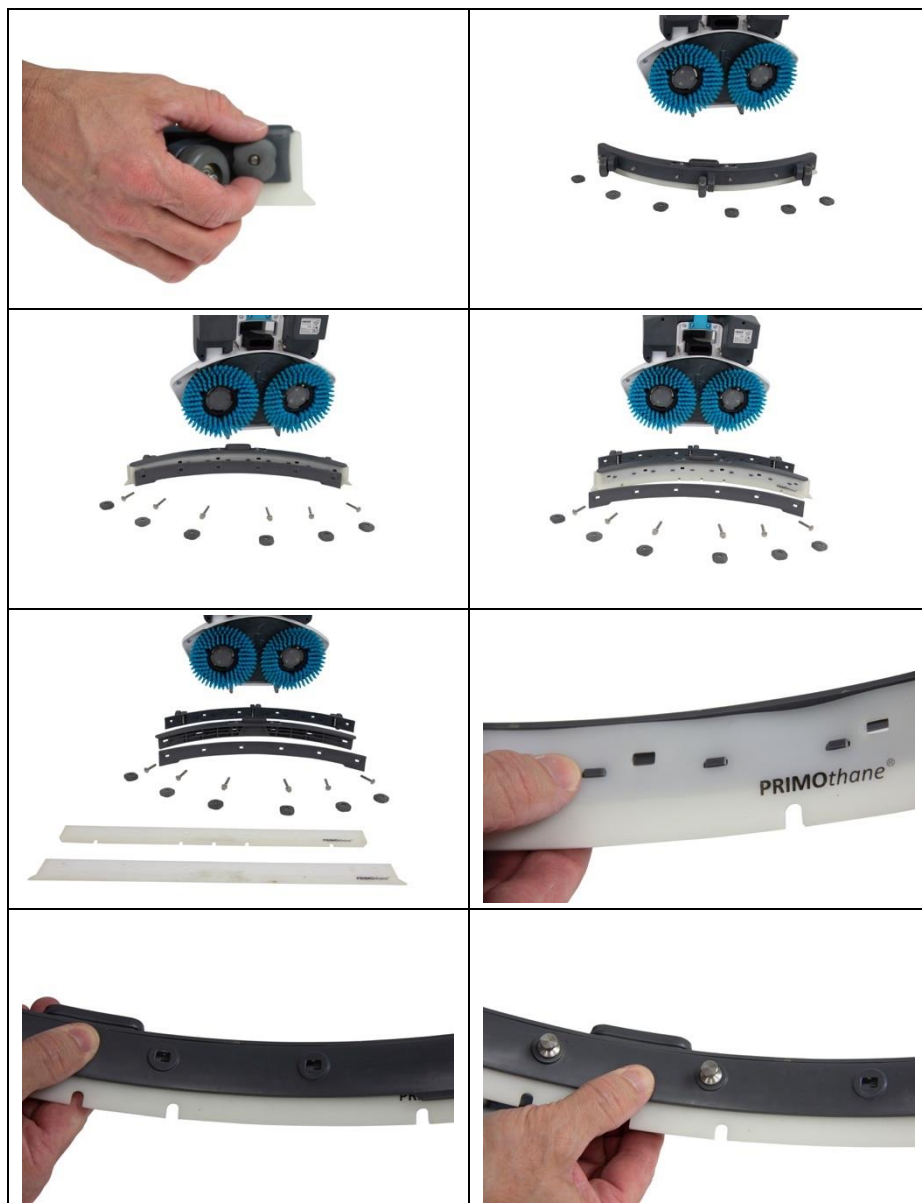




Figure 25: Disassembling the squeegee

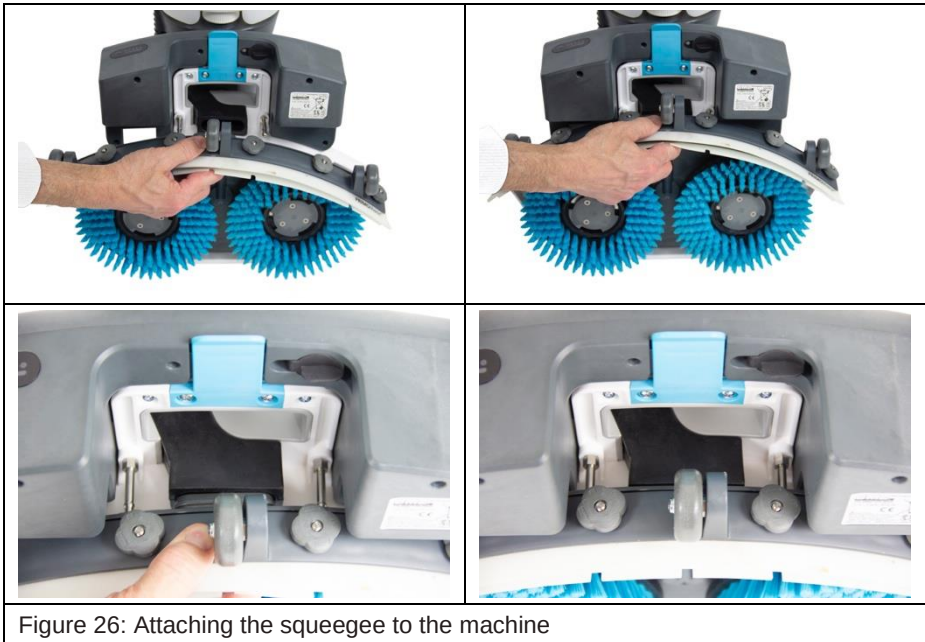


Figure 26: Attaching the squeegee to the machine

9 Repairs

Before repair work is carried out by specialist personnel with the relevant qualifications, the following steps must be observed.

General repair procedure:

Step	Activity
1	Stopping and turning off the machine
2	Putting the machine into the parking position
3	Removing and emptying the liquid container
4	Removing the battery from the machine
5	Carrying out repair work
6	Inserting the battery into the machine

After the repairs have been completed you must carry out the following tasks.

Process following repairs:

Step	Activity
1	Produce the test protocol, activity log, etc.
2	Check safety devices are functioning Do not enable the machine if the safety devices are not functioning smoothly
3	Mount and secure the safety devices that have been removed
4	Remove any tools, foreign bodies or operating materials that have been left lying
5	Perform a test run with a function check of the repaired parts

10 Remediying faults

Here you will learn what you have to bear in mind when remediying faults and where you can find the necessary information.

When remediying faults, please observe the following points.

1. Only remedy the fault if you also have the necessary qualifications (a skilled worker's qualification in the area of mechanical or electrical engineering).
2. When handling the machine, please also observe the safety instructions in this operating manual (see Section 2 "Safety instructions").
3. Please also observe the information on the necessary maintenance work in this operating manual (see Section 8 "Maintenance").
4. Please observe the information on the error conditions in this operating module (see Section 7 "error conditions").

11 Shutting down, disposal

11.1 Shutting down and storage

This contains information that you must observe if you have to decommission the machine for a long time and you want to recommission the machine after this period. When shutting down the machines please also observe the maintenance instructions (see Section 8 “Maintenance”).

The machine is prepared for a long shutdown as follows:

Step	Activity
1	Stopping and turning off the machine
2	Removing and emptying the liquid container
3	Washing the entire machine in accordance with Section 8 “Maintenance”
4	Removing the battery from the machine
5	Storing the battery in accordance with the applicable statutory requirements
6	Taking the machine and power adapter to the storage site, as well as covering and storing them in an airtight manner
7	Checking the battery at regular intervals and charging it if necessary

If possible storing the machine in a place that is dry and not too warm.

11.2 Recommissioning after a shutdown

Machines that have been turned off, shut down or stored for longer than three months, should only be recommissioned after the measures described below are carried out.

Recommissioning after a long shutdown:

Step	Activity
1	Unpacking the machine and power adapter
2	Inserting the battery into the machine and charging it if necessary

11.3 Decommissioning

Please observe the following safety instructions. The safety instructions (see Section 2 “Safety instructions”) and instructions contained in the documentation of the supplier shall also be applicable!

Dismounting the machine:

Step	Activity
1	Stopping and turning off the machine
2	Emptying the liquid container
3	Removing the battery from the machine
4	Detaching the machine from the cleaning brushes or pads

11.4 Disposal

Here you will learn what you must observe in relation to waste disposal.

Some of the machine's materials can be recycled. If you recycle some parts or raw materials from used products you will be making an important contribution to environmental protection. Contact your local authority if you need information about collection points in your area.



Important

Disposal

The following instructions must be strictly adhered to avoid any environmental damage. Even when the disposal is being carried out by an approved specialist company, the operator of the machine must ensure it is carried out properly!

Recyclable materials in the machine:

Recyclable material	Occurrence
Li-ion battery	Power supply
Copper	Cable
Steel	Motor and components
Plastic, rubber, PVC	- Housing - Liquid container - Seals - Tubes - Cable

Tin	Circuit boards
Polyester	Circuit boards

Hazardous waste:

Recyclable material	Occurrence
Electronic waste	- Power adapter - Controls - Circuit boards with electronic components

	Important	Disposal Dispose of all of the parts of the machine in a way that prevents any health or environmental damage.
---	-----------	--

12 Technical data

Mechanics:

Size	Value
Length	1140 mm
Width	435 mm
Depth	280 mm
Total weight	12.5 kg
Speed	500 rpm
Airborne noise emissions	max. 68.5 dB(A)

Electronics:

Size	Value
Power adapter supply voltage	230 V AC/50 Hz
Type of battery	Li-ion
Max. power consumption of battery	20 A
Voltage of battery	18 V
Capacity of battery	12.48 Ah/225 H
Motor power	P = 180 Wu

13 Warranty

13.1 Warranty period

The statutory warranty period shall apply.

13.2 Processing the warranty claim

Warranty claims are processed by the authorized specialist dealer.

13.3 Disclaimers of warranty

Damages or faults that are caused by improper handling or operation, as well as defects resulting from the use of non-original parts or accessories are not covered by the warranty.

The warranty does not cover any damages that have been caused by external influences e.g. lightning strikes, water, fires or any damages during transit.

All warranty claims shall expire if the machine has been repaired, altered or modified.

Liability for damages to external equipment are excluded.

14 Index

A

Annex	57
Assemblies	17

C

Connections	23
-------------	----

D

Decommissioning	53
Defined user positions	16
Delivery	6
Dismounting the machine	53
Disposal	52

E

Electrical data	55
-----------------	----

F

Faults	51
--------	----

G

General	5
---------	---

H

Hazard statements	8
-------------------	---

I

Installation	25
Intended operation	5

L

Lever	22
-------	----

M

Machine (overview)	16, 17
Mechanical data	55

O

Operating unit	21
----------------	----

P

Product information	5
---------------------	---

R

Recommissioning	52
-----------------	----

S

Safety instructions	7
Shutting down	52
Signal words	7
Storage	52

T

Technical data	55
----------------	----

U

User positions	9, 16
----------------	-------

W

Warning symbols	7
Warranty	56

15 Declaration of conformity and manufacturer



EG/EC
KONFORMITÄTSEKLRÄUNG
DECLARATION OF CONFORMITY

Wir:

We: Future Cleaning Technologies B.V., Hoppenkuil 27b, 5626 DD Eindhoven, Netherlands

Erklären in alleiniger Verantwortung, das das Produkt:
Declare under our sole responsibility that the product:

Schreuersaugmaschine
Scrubber-dryer

I-MOP LITE

(Art der Machine / Type of machine)

IMOP.L

und folgende / and following

(Modell – Seriennummer, Baujahr / Model – serial number, year of production)

auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt,
to which this declaration relates is in conformity with the following standards,

**EN 60355-1:02 + A1:04 + A2:06 + A11:06 + A12:06 + A13:08 + A14:10; EN 60335-2-72:09;
EN62233:08; EN 50366:03 + A1:06; EN 55014-1:06 + A1:09 + A2:11;
EN55014-2:97 + A1:01 + A2:08; EN 61000-3-2:06 + A1:09 + A2:09; EN 61000-3-3:08;
EN61000-6-2:05; EN 60335-2-29; EN 61000-6-1; EN 60335-2-67**

(Titel und/oder Nummer sowie Aufgabadatum der Norm(en) oder der anderen normativen Dokument(e)
(Title and/or number and data of issue of the standard(s) or other normative document(s))

gemäß die Bestimmungen der Richtlinien:

follow the provision of directives: 2004/108/EG 2006/42/EG 2006/95/EG

Eindhoven, 26.03.2019

Frank van de Ven
Director



(Ort und Datum der Ausstellung)

(Name und Unterschrift oder gleichwertige
Kennzeichnung des Befugten)

(Place and Date of issue)

(name and signature or equivalent marking or
authorized person)