

4x4SD10KW User Instructions



CE



Steam & Detergent
10 Bar

Warning Do not operate this appliance before reading and understanding these instructions. Always keep the instructions attached to the appliance or readily available at the appliance storage site.

Serial Number Label

CONTENTS

Introduction	page 2
Description	page 2
Safety warnings	page 3
Technical specifications	page 4
Instructions for use	page 5
Accessories	page 10
Maintenance	page 13
Troubleshooting	page 15

INTRODUCTION

ATTENTION! Before performing any operation with the machine, carefully read this manual.

It contains all the information necessary for accident-free operation, ensuring the safety of the operator and all persons working nearby, and respect for the environment. Correct use of this manual enables the user to keep the machine in good condition, reduces breakdowns and consequently repair costs and machine down time.

Keep the manual in a suitable place where it can be easily accessed by the operator whenever required.

DESCRIPTION

The product is indicated for removing anything ranging from simple dirt and grease all the way to organic material. It uses different levels of moisture in the steam to effectively respond to different requirements or detergents in very low dosage.

This machine is a steam generator designed only for the following functions:

- Cleaning with steam
- Cleaning with steam plus added moisture
- Cleaning with steam plus compatible detergents
- Cleaning with the above options plus vacuum (optional)

ATTENTION! The vacuum function is to be used exclusively as a means of removing solids and liquids that are a result of the steam cleaning activity. Do not use the vacuum for general vacuum cleaning!

SAFETY WARNINGS

The manufacturer declines all liability for:

1. Incorrect use of the machine or use for purposes other than those for which it has been designed.
2. All modifications made without manufacturer authorization.
3. Replacement of original parts with parts produced by other manufacturers.
4. Use by untrained personnel or without having entirely read the instruction manual.
5. Inappropriate electrical supply.
6. Inappropriately grounding of the electrical supply.
7. The use of detergents other than those supplied and validated by the manufacturer.
8. Use of the machine without protective clothing, shoes, gloves and safety glasses.
9. Use of the vacuum for general purpose vacuum cleaning.
10. Use of the machine with electric generators

ATTENTION! Before connecting the machine to the power supply, make sure that your supplied voltage corresponds to the declared voltage on the machines label at the rear of the machine!

1. Never direct steam and/or hot water against persons, animals or yourself.
2. Do not use the equipment near persons if the latter are not wearing protective clothing.
3. Caution! Hot accessories can lead to injuries, do not touch with bare skin.
4. Make sure that the water you fill into the water tank is clean. Avoid the use of buckets or canisters to fill the tank unless these are completely free of dirt or foreign objects.
5. Do not drag the machine by pulling the hose, this can damage the hose.
6. Never pull the plug out of the mains socket by pulling at power cord, pull holding plug.
7. Do not vacuum up flammable substances (petrol, solvents, paints etc.), welding fumes or ignited material: danger of explosion or fire!
8. Check the power supply cable before use for any damage.
9. In the event of damage of the power supply cable, have it immediately replaced by the manufacturer or qualified personnel.
10. Over length of extension (longer than 25m) may lead to insufficient voltage supply and malfunction.
11. CAUTION: inadequate extensions can be dangerous. Make sure that your extension is correctly dimensioned and constructed according to national legislation!
12. Never immerse any part of the machine in water or other liquids.
13. Check the steam hose and all accessories for damage before use and replace or have them repaired immediately.
14. In the event of leakage of steam or liquid, switch off and disconnect immediately. Contact the manufacturer or service center.
15. The equipment must not be used by children or untrained personnel.
16. To guarantee safety of the equipment, only original spare parts must be used supplied by the manufacturer or approved by it.
17. Never use the machine in a tilted position, all 4 wheels must stand on a plane surface.
18. Do not clean heat sensitive materials with steam, the heat of the steam could cause damage.
19. Operate the machine only wearing appropriate protective clothing, gloves and safety goggles or glasses.

TECHNICAL SPECIFICATIONS

4x4SD10KW

Maximum Pressure	10BAR
Maximum Temperature	180°C
Max. Steam Output Dry	13,2lt./hour – 220gr./min.
Max. Steam Output Wet	18lt./hour – 300gr./min.
Water Tank Volume	20lt./Stainless Steel Internal
Electric Heating Power	9000 Watt (16 Amp 3P)
Boiler Volume	4,5lt.
Heat up time	5 minutes
Voltage	400V~ 50Hz
Boiler Material	Stainless Steel AISI 304
Dimensions LxWxH mm	880 x 600 x 1100
Net Weight	68kg
Dry Steam Regulation	Manual 0 – maximum
Wet Steam Regulation	4 Levels approx. 20/40/60/80 gr/m
Detergent Function	4 Levels approx. 20/40/60/80 gr/m
Detergent Tank Volume	2 x 5lt. PET Canisters
Vacuum	Optional Function
Vacuum Power	1200 Watt
Vacuum Container Volume	20lt.
Continuous Feeding Inlet	YES - 3/4" BSP Rapid Lock

Machine safety devices:

- PED certified overpressure Safety Valve
- 2 Pressure Switches – operating pressure & overpressure with manual reset
- Safety thermostat with manual reset
- 12V low voltage controls in the Grip
- Emergency OFF switch
- Internal Fuses
- Water-resistant control elements on the front panel

The Boiler and all thereon(in) fastened components have been tested and certified as a complete technical assembly according to the European **PRESSURE VESSEL SAFETY STANDARD 97/23CE (PED)** by the international testing institute TÜV RHEINLAND.

INSTRUCTIONS FOR USE

CAUTION

The machine is supplied with a power supply cable suitable for its absorption. Check that the electrical system on site complies with the current national regulations. This instruction manual may include information about functions or accessories which are not part of the product you have purchased. This manual gives instructions for all of the versions available. Please ignore all information which does not pertain to your machine. Contact your dealer or distributor for further information.

FRONT PANEL

1. POWER ON/OFF SWITCH

2. BOILER CONTROL PANEL

1. T2 – SERVICE FUNCTION*
2. TEMPERATURE DISPLAY
3. T1 – SERVICE FUNCTION*
4. BOILER ON/OFF BUTTON
5. BOILER HEATING LED
6. BOILER PUMP LED
7. WATER TANK LOW LED
8. POWER ON LED

3. WET STEAM/DETERGENT PANEL

1. WET STEAM BUTTON (BLUE)
 2. +/- LEVEL BUTTONS
 3. DETERGENT BUTTON (YELLOW)
 4. LEVEL INDICATION LED
4. PRESSURE GAUGE
 5. WATER MAINS ON/OFF BUTTON
 6. STEAM REGULATOR +/- (MANUAL)
 7. HOSE CONNECTION SOCKET
 8. EMERGENCY KILL SWITCH

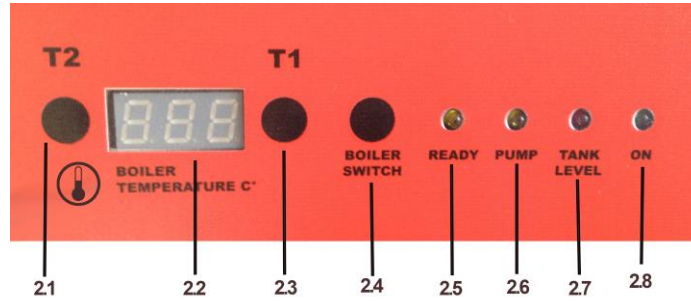
* see chapter "Maintenance"

Pic. 1



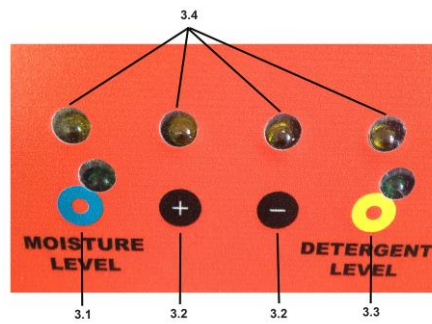
Boiler Control Panel

Pic. 2



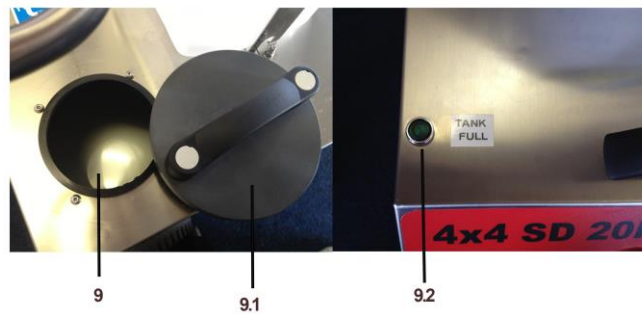
Wet Steam/Detergent Panel

Pic. 3



Top Inlet Water Tank D. 160mm

Pic. 4



Hand-grip

Pic. 5



MACHINE START :

Steam only function :

- Connect the machine to the electrical mains.
- Turn the mains switch **1** (Pic. 1) to the ON position.
- LED **2.8** goes on to signal that the machine receives voltage.
- Remove the water tank cover **9.1** (Pic. 4) and fill the tank **9** with plain tap water until the LED **9.2** lights up, this is possible only if the machine is turned on, or you see that the tank is full. Close the water tank.
- Push the boiler ON button **2.4** (Pic. 2) and the pump starts filling the boiler. LED **2.6** lights up. Filling is automatically performed when requested by the water level sensor inside the boiler.
- When the pump stops, LED **2.6** (Pic. 2) goes out and the heating phase begins, lasting approx. 5 minutes. During the heating phase, LED **2.5** will continue to blink.
- When LED **2.5** (Pic. 2) stops blinking and stays on, the machine is ready for use. (During use this light will often blink to show that the heating elements are on).
- Insert the hose into the hose connection socket **7**, ensuring that it is securely fitted.
- Fasten accessories to lances by firmly pushing them on to the tip (nozzle) **10.2** (Pic. 5).
- Pull the trigger **10** (pic. 5) on the hand-grip to start steam output and direct the steam jet towards the area to be cleaned.
- Regulate steam output by turning the manual output regulator **3.2 +/-** (Pic. 3) to the desired output quantity.

CAUTION

Before beginning steam cleaning operations, evacuate the condensation left inside the steam hose into a bucket or other suitable place.

Always wear gloves and protective glasses when working! Ear protection is recommended!



WARNING! In case of danger, injury of the operator, leakage of steam or anything that makes it difficult to regularly turn the machine off, immediately hit the Emergency OFF Button **5** (Pic. 1). The switch will remain in the OFF position until manually reset by turning the switch so that it pops back up! Reset ONLY after having removed the cause of malfunction. See chapter "Troubleshooting"..

Wet steam or detergent :

To optimize the cleaning action of the steam, water from the internal tank **9** or detergent from one of the external canisters can be injected into the steam.

- Enable the wet steam feature by pressing the blue button **3.1** (Pic. 3) and then choose the level required with the +/- buttons **3.2**. Levels 1 & 2 are indicated for most jobs in which dry saturated steam is to dry, making cleaning slower than necessary. Levels 3 & 4 allow for a strong rinsing action of the steam but the steam temperature still stays above 120°C at the lances tip.
- Now enable switch **10.1** (Pic. 5) on the top of the hand-grip to activate the injection of water into the steam while also pulling the steam trigger. The water pump will run only while pulling the trigger.

- To use the detergent feature press the yellow button **3.3** (pic. 3). First fill one or both of the external canister on top of the machine with 5 liters of water and detergent and make sure that the transparent hose is connected properly to the chassis. You have 2 canisters available which you can fill as required for a total of 10lt.
- Choose the desired level of detergent required with +/- buttons **3.2** and if necessary do tests to find the best level of detergent to inject.
- Again, enable switch **10.1** (Pic. 5) on the top of the hand-grip to activate the injection of detergent into the steam while also pulling the steam trigger. The detergent pump will run only while pulling the trigger.
- Priming the detergent pump: if the detergent canister runs empty the pump may take a while to suck up the detergent and purge the air in the hose. Observe the transparent hoses on the canister for visual feedback.

ATTENTION! Remnants of detergent in the transparent hose or pump can cause blockage and or damage the pump, please flush the detergent circuit when not used regularly.



WARNING! This machine has been designed for use with non-foaming and noncorrosive detergent. Use of foaming and/or corrosive detergent will damage the machine! You are advised to use only the detergent specified by the manufacturer.

Water refill :

When the water in the tank finishes, the machine emits an acoustic signal and LED **2.7** (Pic. 2), signaling "water tank low" lights up along with **9.2** (Pic. 4). After a little more time the steam outlet is blocked until the tank is refilled.

Perform the following operations:

- Press button **2.4** (Pic. 2) to turn off the boiler.
- Open the plug **9.1** (Pic. 5) and refill the tank with clean tap water. Close tank.
- Press button **2.4** and the pump will start filling up the boiler, LED **2.6** and **2.5** blink.
- Since the boiler is already under pressure, LED **2.5** light up steady after a few seconds and the machine is ready to resume work.

Continuous water refill

The internal water tank can be refilled with water automatically and continuously. Connect the machine to a water hose by using the supplied 3/4" BSP quick release connector. Fasten the male part to the water inlet at the rear of the machine, fasten the female to the hose and then connect both.

- Open the water from the tap.
- Push the green button **5** (Pic. 1).
- The tank will now fill itself. Sensors ensure the correct water level.

ATTENTION! Pressure of water supply for the continuous refill must not be greater than 16 Bar or less than 0,1 Bar.



WARNING! Never push the green button if the machine is not connected to the water hose. This would cause water to flow out of the tank and onto the floor. When done working, turn the green button **5** OFF and disconnect the water hose.

HOSE-GRIP STEAM & VACUUM

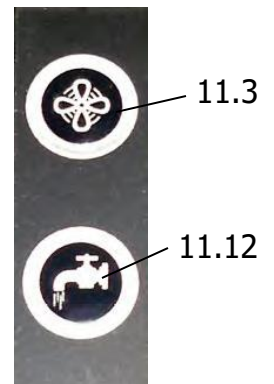
11 HOSE-GRIP STEAM & VACUUM

11.2 DETERGENT BUTTON

11.4 WHITE LEVER

11.1 STEAM TRIGGER

11.3 VACUUM ON/OFF BUTTON



Kit Vacuum: (see optional accessories below)

The vacuum kit contains :

- 1 vacuum cleaner
- 1 support cage to attach the vacuum cleaner to the machine
- 1 steam & vacuum hose and accessory kit

Instructions to mount the vacuum kit:

- Fit both ends of the vacuum support into the holes between the back wheels and fix it with the two supplied screws.
- Put the vacuum cleaner on the support
- Connect the vacuum cleaner to the vacuum socket behind the cleaner using the special short vacuum hose.
- Plug the vacuum into the receptacle on the rear, near to the vacuum socket.
- Enable the main ON/OFF switch located on the vacuum cleaner head.
- Connect the steam & vacuum hose to the steam socket.
- Start the steam machine as explained above.
- Determine the required steam output by regulating manually with valve **6** (Pic. 1).
- Press the trigger **11.1** (Pic. 6) on the hose grip **11** to enable steam output.

- For suction, press and release micro-switch **11.3** on the hose-grip. Press once to switch ON, and a second time to switch OFF.
- The detergent/hot water function is enabled by persistently pressing micro-switch **11.2** and release to stop. *Follow the instructions above as for steam only!*



WARNING! Do not use the vacuum without its filter element, this will damage the vacuum and cause dirt and contaminants to come back out of the exhaust! This vacuum is not suitable for collecting dangerous waste!

AFTER USE

- Turn switch **1** OFF and disconnect from the mains voltage supply.
- Disconnect the hose, check for damage and clean it externally with a cloth, warm water and detergent (rinse the vacuum hose inside by vacuuming up 2 – 3lt. of water).
- Clean all accessories with hot water and detergent or with steam.
- Dry all accessories and store them in a dry environment.
- Clean the machine with a cloth, warm water and if necessary use a neutral detergent.
- Clean the vacuum tank after every use. Open the 2 lateral hinges of the vacuum tank and pull the vacuum head upwards. Dispose of the contaminants inside and rinse the tank until clean. Inspect and if necessary wash the filter element that is attached to the vacuum head. This filter must be washed regularly to maintain a high level of vacuum efficiency.

STANDARD ACCESSORY SET

KIT9800/2

LANCE IDROVAP 6M HOSE

Ø 2.25mm NOZZLE

**Also available in lengths of 10/15/20 meter. Specify length when ordering!*



KIT0814/I

6 BIG ROUND BRUSH STAINLESS BRISTLES



KIT0814/N

6 BIG ROUND BRUSH NYLON BRISTLES



KIT0814/O

6 BIG ROUND BRUSH BRASS BRISTLES



KIT0815/I
3 ROUND BRUSH STAINLESS BRISTLES



KIT0815/N
3 ROUND BRUSH NYLON BRISTLES



KIT0815/O
3 ROUND BRUSH BRASS BRISTLES



KIT0816/I
2 SMALL ROUND BRUSH STAINLESS BRISTLES



KIT0816/N
2 SMALL ROUND BRUSH NYLON BRISTLES



KIT0816/O
2 SMALL ROUND BRUSH STAINLESS BRISTLES



KIT0020
SAFETY GLOVES



KIT0021
SAFETY GLASSES



KIT0720
MULTI-BRUSH TOOL



MAINTENANCE

ATTENTION! Maintenance should be done every 6 to 12 months or more often if used very heavily and/or if the water is very hard. Make arrangements with your dealer or distributor for professional maintenance and assistance.

The amount of carbonates in the water (chalk, salts and other minerals) determine the hardness of the water you use with this machine. When water is heated up these carbonates will "fall out", that is they will become small particles that in the worst case can encrust you boiler, the heating element and other components. Please clean your boiler as described below regularly, more so if you have hard water from the tap. Do not use completely demineralized or distilled water with your machine because such water contains no minerals and carbonates and could lead to malfunction!



DANGER! Wear protective clothing, gloves and glasses while operating the below procedure, the hot water can cause injuries!

Cleaning the boiler :

Perform this task every 3 to 6 months!

- Switch the machine ON at pressure "0" and let the temperature reach approx. 100° C (212°F) temperature in the boiler.
- Push button **2.4** to turn the boiler off and release all steam by pressing the trigger **10**.
- Now turn off the main switch **1** and unplug the machine from the socket on the electrical panel.
- Gently rock the machine to agitate carbonate deposits in the boiler.
- Lift the machine and place a container below to collect the dirty water from the boiler.
- Using an 8mm Allen key, partially unscrew the boiler plugs under the machine (see picture below! The number of plugs will vary according to the machine model from 1 to 4).
- Wear protective gloves when you remove the plugs to avoid scalding yourself and empty the content of the boiler while gently shaking the machine.
- Re-tighten the plug securely but without over-tightening.

ATTENTION! If the water collected is very dirty, you are advised to repeat the operation.

To restart the machine, follow the instructions above in "Machine start".

Function of the T1 and T2 Buttons

The buttons are used to read out the total hours run by the machine. To read out do as follows:

press T2 (**2.1**) to visualize the hours run up to 999- the display shows 3 digits

press T1 (**2.3**) to visualize the hours up to 99000 – the display shows 2 digits

now sum up both, for example if you press T2 and read 317 and then press T1 and read 04 then you have a sum of 4317 hours which the machine has run.



CAUTION

Check for any water leaks from the plug below the machine and tighten the plug if necessary.

ATTENTION! At regular intervals of 6 month the internal water filter should be cleaned and the anti-calcification filter exchanged. This filter inhibits the aggregation of calcium into a crust leaving the calcium particles present in the water to deposit at the bottom of the boiler and to be removed as above described. To avoid the formation of encrusted calcium in the boiler, solenoid, pressure switch etc. it is absolutely vital to exchange the filter which is situated inside the machine. This is to be done only by trained service personal. On that occasion all components should be checked for proper function and all cables be visually inspected for eventual damage and if necessary exchanged! If a deep descaling of the boiler should be required this can be done with an appropriate lime/chalk deposit remover.

TROUBLESHOOTING

All LED and the display of the front panel start blinking and the display shows letters or numbers that blink and the machine no longer works.	The voltage is insufficient or too high to run the machine. Measure the voltage with the machine on. Check the correct dimension/gage of the mains and the length of an eventual extension cable.
Steam leaks from accessories due to dirt, wear or breakage of gaskets or it is difficult to disconnect these.	Replace the gaskets on the connections making sure you do not cut or mark the gasket and that it is securely fitted in its housing. Clean and place a light film of silicone grease on the gaskets.
Hose plug hard to insert in the machine socket.	Do not force it in; lubricate the steam socket connection with some silicone grease.
No steam output but machine is in pressure.	Make sure the manual output valve is open.
Machine heating time too long.	Remove the scale from the boiler as described above.
The pressure drops rapidly during operation.	Remove the scale from the boiler as described.
The pressure rises rapidly and the pump continues to fill the boiler with water.	The machine needs to be serviced! Please contact your service center.
Vacuum does not turn on when enabled on the hose-grip.	Check that the Vacuum is plugged into the 230V ~ socket on the rear of the machine and make sure that the vacuum is turned ON on the vacuum itself.
The vacuum does not effectively suck up dirt.	Clean or exchange the filter element and check the hose and accessories for blockage.
Leakage of steam or water into the machine.	Push the Emergency OFF Button 8 and unplug the machine. Contact your service partner for instructions!

ATTENTION! If the above solutions do not resolve your problem please contact your dealer or distributor.

Manufactured in the UK to the highest quality standard by:



Leyland Business Park,
Centurion Way, Farington
Leyland Preston PR25 3GR
Tel: 0044 (0) 1772 431906
Fax: 0044 (0) 1772 431902

E-mail: info@matrixcleaningsystems.co.uk