



User Manual

Serie-CF+

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Read the warnings in this booklet carefully as they contain important instructions for installation, use and maintenance. Before using the device, practice adjusting the Low-/ high-pressure cleaner to be able to switch off quickly in order to eliminate the pressure. For this we also refer you to "Prohibited operations - Safety regulations

This booklet is an integral and essential part of the product which, as envisaged by the EEC directive 89/392, must be provided to the user to ensure the training / information of the personnel who will work with the machine. The manufacturer is not liable for injury or damage if the appliance is used incorrectly, not according to the instructions. Keep this booklet in a safe place for future reference. Check the model number of the pressure washer you have purchased, this information can be found on the rating plate. At the time of delivery, check that the machine has not been damaged in transit and that the necessary accessories are present. Any complaints will only be accepted in writing within 8 days after the date of delivery.

GARANTIE

1.A Series-CF+ is backed by a 12-month warranty against problems resulting from manufacturing defects. The warranty does not apply to parts that are subject to normal wear and tear (resulting from the use of the machine) in particular: pistons, seals, gaskets and electrical parts. The warranty will lapse if repairs are carried out by third parties and / or unauthorized personnel (see 3).

2.Replacement or repair of defective parts is an indisputable decision by Meclean. The costs and risks of transport, removal and installation of the machines and all other costs directly or indirectly related to the repair of the product are not covered by the warranty.

3. All repairs under warranty must be performed by Meclean or a technical service center approved by Meclean. Repairs carried out by unauthorized technicians are not reimbursed.

4. Periodic checks, maintenance and adjustments are not covered by the warranty.

DESCRIPTION OF THE MACHINE

Hot water low pressure unit / high pressure unit consisting of a metal chassis / frame, electric motor, burner module for the production of hot water, detachable diesel oil tank; smoke outlet, high pressure pump, electrical system, control panel, reels, lance with gun (or other accessories), watertank and generator.

TERMS OF USE

Use

The Series-CF+ low / high pressure unit is designed and manufactured for professional use. If the machine is used in closed rooms, proper aeration and a good exhaust system is required to avoid the risk of poisoning., Contact our service department if necessary, to carry out these instructions correctly,. It is prohibited to use the machine for cleaning machines with electric motors or other equipment that can cause a short circuit as a result of contact with water.

Enviroment

The electrical system is IP 54 certified and allows use on / in:

- OUTSIDE on a flat surface;
- Damp places

In any case, for safe and easy operation, it is necessary that the floor of the rooms being used are as flat as possible.

GENERAL OVERVIEW



1. Control panel
2. Hose reel
3. Water connection from machine to hose reel
4. Water tank
5. Water filter
6. Filling opening for diesel fuel
7. Burner exhaust (hot!)
8. Mounting eyes
9. Lifting tubes



1. Battery level / hour indicator
2. Fault indication boiler
3. Heat exchanger
4. Rotary knob for using WeedPLUS

STANDARD ACCESSORIES

The standard accessories consist of:

- Hose reel.
- High-pressure gun with quick coupling(KEW)
- Highpressure lance with nozzle

WeedPLUS accessories

- Spraybeam in wheels
- Lance with showerhead

Optional accessories

A Serie-CF+ can be equipped with additional accessories according to your requirements: Please ask for one of our sales representatives.

- SANDBLASTING KIT for wet-sandblasting
- SEWER HOSE voor het effectief reinigen van verstopte rioolleidingen
- ROTATING / FIXED BRUSHES for removing dirt
- FOAM LANCE transforms detergent in to foam
- ROTARYNOZZLE increases the cleaningpower of the waterbeam

TECHNICAL SPECIFICATIONS

- Direct drive
- Dieselpump
- Maximum ambient temperature: 40 ° C;
- Minimum ambient temperature: +2 ° C;
- Maximum air humidity: 80%

Model		Serie-CF+
Max. press.	(Bar)	200 bar
Capacity	(Lt/min)	11
Motor power	4,5	
Max. outlet water temperature	(°C)	99
Water tank	(Lt)	500
High pressure hose		20 mtr
Dimensions	HxWxD (Cm)	135x102x145

INCORRECT USE

Careful adherence to the instructions included with our equipment is a prerequisite for safe use. We therefore decline all responsibility for INCORRECT or IMPROPER use of our devices. To warn users, we provide some examples of incorrect and / or risky behavior below.

Improper use of our machines is understood as; acts for which they were not intended.

Improper use includes.:

USE IN AREAS WHERE THERE IS EXPLOSION OR FIRE HAZARD

(e.g. paint shops, near gas pumps, near materials such as wood, straw, etc.)

- USE IN A CLOSED / UNWELL-AIRED AREA
- USE IN A CLOSED AREA WITHOUT EXTRACTION INSTALLATION
- USE IN THE RAIN OR STORM
- USE TO SPRAY ANIMALS CLEAN
- USE BY PEOPLE WHO ARE NOT ADULTS
- SPRAYING ON AN OBJECT POWERED BY ELECTRICITY
- SPRAY (CAR) TIRES AT A DISTANCE OF <30 CM
(Tires are damaged by a high pressure water jet, causing them to explode).
- USE WITH OTHER PEOPLE NEARBY WHO MAY BE AFFECTED BY DIRT OR PARTS FROM THE OBJECT TO BE CLEANED.

INCORRECT USE

Incorrect use of our machines means using them without complying with the operating and maintenance instructions. Failure to follow these instructions can result in injury to the operator and damage the machine. We will now give some examples of misuse:

- MIS CONNECTION / MISUSE OF THE STANDARD ACCESSORIES
- WRONG FOLLOW-UP OF THE STEPS FOR COMMISSIONING
- THE USE OF NON ORIGINAL PARTS
- USE OF FUELS OTHER THAN GAS OIL (DIESEL)
- USING THE MACHINE WITH AN EMPTY GAS OIL TANK
- REPAIRS BY UNAUTHORIZED PERSONNEL
- USES FOR WHICH THE MACHINE WAS NOT MADE (see improper use)
- MAINTENANCE WAS NOT TIMELY PERFORMED BY QUALIFIED PERSONNEL

COMMISSIONING OF THE MACHINE

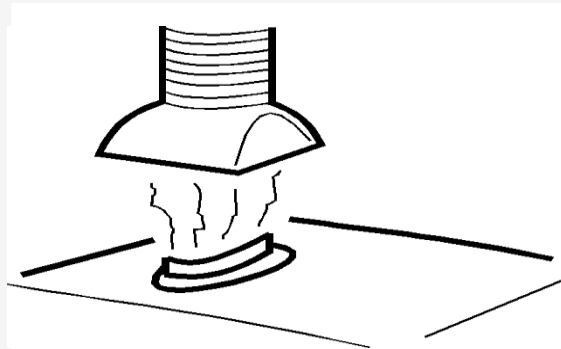
Commissioning must take place in suitable areas from the point of view of cleaning and lighting. For reference numbers, see page 4 (Table of Contents) of this manual.

1 - After removing the packaging, check that the appliance is not damaged. If in doubt, do not use the appliance and call the technical service of your supplier. The packaging elements (cardboard, wood, etc.) must be placed in special containers and out of the reach of children, they are a potential source of danger.

2 - Place the Serie-CF+ on a flat surface.

The place of work must be equipped with:

- A clean water connection with sufficient water flow, a minimum pressure 0.3 Mpa
- A connection to the sewage system for the treatment of waste water.
- A device for the removal of exhaust gases. Gas released in closed spaces is dangerous, good ventilation of the room is important



Commissioning of the machine :

1- After unscrewing the cap (generator and burner), fill the tank with diesel. It is necessary to use clean fuel, filter it if necessary.

2- If necessary, connect the high-pressure gun and the lance to the high-pressure hose and unwind the hose completely.

3- After unscrewing the lid of the water tank. Fill the tank with water, It is necessary to use clean water filter it if necessary

4- Check the pump oil level. It must always be above the mark on the dipstick.

5- Check the pump and gear transmission
For this operation, please refer to the "routine maintenance tips" section.

6- Put the choke on, on the generator and pull the cord. Adjust the throttle

7- Put the on/off switch to cold water or warm water

8- Aim the lance at the to be cleaned surface and squeeze the handle of the gun.

Correct execution of the activities is essential for the proper functioning of the machine.



WARNING: the mounting eyes described on page 4 must explicitly not be used to lift the machine! The machine can be lifted via the lifting tubes.

USE OF THE MACHINE

Before starting the machine:

- Check that the water supply hose and the high pressure hose are in good condition. If they are damaged, the machine must not be used and you must contact a mec clean dealer.
- Check that the machine is not visibly damaged.
- Check the presence of fuel in the tank (avoid emptying when using the machine in order not to damage the diesel pump)



High pressure water jets.
Always hold the gun with both hands. Never target people and animals.

CAUTION: Firmly grasp the lance and gun with both hands. When opening the gun there is a slight kickback. You must ensure a safe and stable position. Avoid climbing unstable carriers when using the device. All settings of buttons or switches on the machine must be made with the gun closed.

SWITCH OFF:

When you have finished with the machine work as follows:

- A) Shut off the gun.
- B) Put the machine on the cold water position
- C) Open the spray gun and let the water flow for 1 minute (until the temperature drops and cold water comes out)



NOTE: Make sure the water is cold before the machine stops.

- D) Turn the switch to position: "OFF"
- E) Open the spray gun for a few seconds to drain the hoses.
- F) Switch off the generator
- G) When you have finished using the machine, put it away in an enclosed area

SAFETY

- Make sure the high pressure hose is not obstructed / blocked, this can cause the hose to explode, causing injury to the user.
- During use, the protective housing / covers must not be removed
- When the machine is running, it generates heat. Only touch the points marked by the warning labels when it cools down. Do not touch smoke outlets until they are completely cool.
- Do not use the power supply or connecting cables to move the machine.
- Do not use the machine on sloping surfaces.
- Do not use the machine barefoot.
- Always wear rubber boots and safety glasses / screen + spray suit when using the machine.
- To protect yourself it is necessary to wear protective clothing
- In case of long work in the vicinity of the machine (or at least at a distance of less than 7 meters), use hearing protection equipment (sound-absorbing headphones or other forms of hearing protection).
- Never drink the water coming out of the machine, it must not be used as drinking water.
- The machine must be used in rooms or at times when adequate lighting is provided.
- Never leave the machine unattended when it is in operation. In case of prolonged stops, it is mandatory to switch off the machine.
- When using the machine in hazardous environments (e.g. fuel pumps or high voltage cables), observe the relevant safety regulations.
- The machine is equipped with a "by-pass thermal shut-off valve", when the machine is not used for more than 6 minutes, it cools automatically, thanks to the safety device, to prevent damage to the seal.
- When using the machine, it is forbidden to cover it or place it where there is little ventilation.
- It is prohibited to make any repairs to the machine while it is in operation.
- It is forbidden to direct the water jet at the machine or in any case to direct it against any other part that is under electrical current (cable, plugs, etc.) This can cause electrical damage and danger to the user.
- Avoid using the pump in rain or thunderstorms and when water or other liquids can come into contact with the pump.
- It is prohibited to place heavy objects on the Serie-CF+
- Do not run the pump without water (dry), this can cause significant damage to the internal pump parts.

PRECAUTIONS WHEN USING THE HIGH PRESSURE HOSE



The supplied high pressure hose has undergone strict safety checks. Hose damage can be avoided by taking the following precautions:

- Completely unroll the hose from the hose reel, to prevent damage to reel and / or hose before working.
- Do not pull on knots that may form.
- Do not damage the hose in any way.
- Do not move the appliance by pulling on the hose.

In addition, avoid using the hose in case the outer layer swells or becomes damaged. Never try to repair the hose. In case of problems, replace the hose with a new one.

WARNINGS FOR THE USE OF THE ACCESSORIES

When using accessories that are not part of the standard equipment, carefully follow the instructions for use. Always check that the accessories used are compatible with the characteristics of the Serie-CF+ only then may they be used.

The manufacturer declines all responsibility for the use of non-genuine parts that may damage the device or cause physical damage to the user.



NOTE: In the event of a malfunction and / or bad functioning of the machine, oil or water leaks, switch off the machine immediately and contact your dealer immediately and inform them of the problems. You should refrain from all attempts at repair. Notify qualified personnel immediately. Any repairs must only be carried out by the manufacturer or an authorized meclean service center.

Before performing maintenance work on the machine:

- A - Switch off the machine
- B - Empty the water tank.
- C - Releases remaining pressure (pull gun handle).



WARNING: The Series-CF+ must not be opened without the permission of the after-sales service and / or meclean dealer (this may result in loss of warranty)



WARNING: the mounting eyes described on page 4 must explicitly not be used to lift the machine! The machine can be lifted via the lifting tubes.

REGULAR MAINTENANCE

1. Regularly check the oil level of the high pressure pump. It must always be above the mark on the dipstick. The oil change should be done the first time after 50 hours of operation, then every 500 hours; use the type of oil specified by your Meclean dealer.

The oil level in the high pressure pump should cover at least half of the dipstick of the pump or unscrew the oil cap and check that the oil covers the bottom cut. If the amount of oil is not enough, do not start the machine!

2. Do not expose the pump to very low temperatures, avoid frost, do not use the machine at temperatures below 0 ° C, this can cause damage or breakage to the pump and the pipes.

Add a small amount of antifreeze in case of frost. On the other hand, high temperatures when the machine is running can overheat the engine.

DAMAGE CAUSED BY FROST IS NOT COVERED BY WARRANTY.

3. Never use corrosive liquids (paints, acids, solvents, greasy or very thick liquids) as they can cause permanent damage to the pump. To avoid chemical deposits, clean the chemical suction set by sucking water for a few seconds.

4. Boiler cleaning should be performed every 250 operating hours as follows:

- Dismantle the nozzle and the electrode holder flange (burner head)
- Clean the nozzle filter with compressed air and check the position of the electrodes
- Remove the lid from the kettle and clean the screen
- Remove the inner cover
- Unscrew the coil lock nuts and remove it from the boiler
- Clean the battery with a wire brush
- Vacuum the residue from the kettle
- Reassemble all parts and carry out the steps in the opposite order
- The total check and adjustment of the fuel pressure and air supply must be carried out periodically by a meclean dealer.

5. Descaling should be done periodically using specific products depending on the hardness of the water. Pour one liter of a descaling product: KALKREMOVER PRO into a water jug of about 15 liters (use according to the instructions on the packaging).

- The machine is equipped with a magnetic descaler which is mounted at the water connection on the machine. It must be replaced every 1200 working hours. In some cases (depending on water hardness) it may be necessary to add extra Stone Preserve (lime binder).

It is advisable to have these operations carried out by personnel from meclean because the descaling product can cause damage to the components. Dispose of the descaling product in accordance with local legislation.



NOTE: the descaling liquid contains acidic substances that can damage objects to be cleaned: make sure to rinse them well. Protect your face and hands with gloves and a protective mask during descaling.

6. From time to time you should check the burner electrodes for wear. The correct distance between the electrodes is 3 mm.

7. Replace the high pressure hose regularly. On the new one, the following is clearly indicated: the maximum allowable pressure, the name of the manufacturer or the manufacturer's brand. Before use, check that the pressures of the new hose correspond to those of the machine. **USE ONLY HIGH PRESSURE HOSES FROM MECLEAN**

8. Eventhough the Serie-CF+ is equipped with a water filter. Make sure that you always work with clean tap water or with well-filtered water. Only use filter systems for filtering open and / or outside water from meclean.

9. Blockage of the nozzle of the lance by limestone, scale or other causes can cause an excessive increase in pump pressure and damage it. The nozzle of the high-pressure lance must be replaced periodically.

10. Check the diesel filter regularly and if it is dirty or damaged, replace it.

11. Use the engine manufacturer's operation and maintenance manual for all maintenance operations on the engine.

DISASSEMBLING OF THE MACHINE

If you decide to disassemble the machine, it is recommended to take it out of service by:

- Empty the fuel tank (or remove it)
- Disconnecting the water supply
- Disconnect the machine from the power supply.

INFORMATION OF ECOLOGICAL NATURE

It is necessary to observe the local regulations regarding connection to the water supply. In accordance with regulations regarding environmental pollution, the appliance must not be directly connected to the public drinking water supply system to prevent chemical substances from entering the drinking water.

The removal of the packaging from the machine, replacement of parts, the entire machine, and the various liquids must be done in an environmentally friendly manner, without pollution of earth, air and water, and must in any case comply with the current regulations on the topic.

TREATMENT OF WASTE

- Ferrous materials, aluminum, copper: recyclable materials must be handed in at an approved collection point.
- Plastic materials: materials must be handed in to a landfill, incinerator or special recycling company.
- Used oils: hand them in at an approved collection center

MALFUNCTIONS

In case of operational failures, please refer to the table below. If problems persist, contact meclean (or an authorized meclean service center)



WARNING:

Before performing any maintenance, disconnect the machine from the power supply.

PROBLEM	CAUSE	SOLUTION	*
The pump runs, but does not come up to pressure	The pump is sucking in air	Let the pump run with the lance / gun open	
	Worn or dirty pump valves	Check and / or replace	
	Wrong or worn nozzles	Check and / or replace	
	Worn seals	Check and / or replace	
	Clogged suction filter	Check and / or replace	
	Worn pistons	Check and / or replace	
Irregular fluctuations in pressure	Not enough water supply	Check water supply / Replace waterfilter	
	Worn seals	Check and / or replace	
	Worn nozzle	Replace nozzle	
Pressure drops	Contamination in the pump	Check and / or replace	
	Worn pressure regulator	Check and / or replace	
	Worn seals	Check and / or replace	
	Sucks in air	Check the suction tube	
Noise level to high	RPM Engine to high	Check, clean and / or replace	
	Worn bearings	Check and / or replace	
	Worn water / oil seals	Check and / or replace	
Water in oil	Worn seals	Replace	
Water leaked from pumphead	Worn out o-Rings	Replace	
	Worn oil seals	Replace	
Oil leakage	Not enough diesel	Fill the tank	
Motor doesn't start	No power	Check the power supply	
Motor doesn't start	No water	Check the water supply	
	No fuel	Fill the diesel tank	
The motor keeps stopping	Clogged diesel filter	Check and replace	
	Not enough diesel	Check the diesel level and the float	
The burner doesn't start	Worn electrodes	Replace	
	Broken electrodes	Replace	
	Obstructed diesel filter	Replace	
	Obstructed fuel nozzle	Clean the fuel nozzle	
	Burner motor fuse and damaged transformer	Replace	
	Reduced speed	Speed up the engine	
Correct voltage when no load, but low when loaded	Load too high	Check	
	Shorted rotating diodes	Check and / or replace	
	Load with high speed	Decrease the speed of the engine	
Correct voltage when no load, but high when loaded	Loose contacts	Check the connections	

NOTES :

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