



Instruction manual

Hot and cold water electrically heated high-pressure cleaners

Electra 24

Electra 36

Electra 48

Electra 72

Electra 96



Please read and conform to the safety instructions before use! Keep the instructions in a safe place for later use and pass them on to any future user.

Technical Data

Technical data	Electra 24	Electra 36	Electra 48	Electra 72
Operating Pressure	30 - 180 bar	30 – 180 bar	30 – 200 bar	30 – 200 bar
Water output	10 l/minute	10l/minute	13 l/minute	13 l/minute
Water tank level cut-out	Yes	Yes	Yes	Yes
Voltage	400V	400V	400V	400V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Circuit breaker required	40 A	60 A	80 A	120 A
Motor power intake	5.5 kW	5.5 kW	7.5 kW	7.5 kW
Motor speed	1,400 rpm	1,400 rpm	1,400 rpm	1,400 rpm
Heating (kW)	24	36	48	72
Dimensions wall-mount	400 x 600 xx 1250mm			

Installation

The required electricity supply for the various Electra models is as follows:

24kW	–	40 Amp
36kW	–	60 Amp
48kW	–	80 Amp
72kW	–	120 Amp

***Three phase – No neutral required

Supply cable

The cable required is a 3-core plus earth cable with no neutral required due to control circuit being fed by a 400V - 220V transformer.

For fixed machines, an isolator must be supplied within one meter of the place of installation and on the right hand side of the machine.

On the mobile units, no plug top is supplied as sockets vary from site to site and is supplied by the customer.

Mounting to the wall – fixed machines

For all machines mounted in the large Cabinets (400 x 600 x 1250mm) a steel flat bar is supplied with the unit. This bar is used to place the holes for the cabinet and ensure it is level, holes are marked and drilled. This flat bar is then mounted inside the cabinet to secure the machine to the wall and provide adequate support and secured with 2 x 8mm rawl bolts.

Water supply should be terminated with a tap or ball valve into a ½ inch hose on the left hand side of the machine. Supply should be a minimum of 13 litres/minute with an ideal minimum pressure of 2 - 3 bar. The water flows into the water tank and a ball valve controls this water flow.

The water tank is equipped with a low-level cutoff switch that will switch the machine off in the event of insufficient water supply to the machine. The machine will re-activate automatically when the water level restores itself.

In the event of this happening regularly, inspect the inlet filter in the float valve in the water tank as particles in the filter can restrict or block water flow, check for kinks in the water supply hose, identify other users of water in the same pipeline supplying the machine.

Trip shunt

The trip shunt device is fitted to the heater circuit breakers and on sensing that elements are too hot, will switch off the circuit breaker's and cut supply to heater contactors.

The trip shunt is controlled by a thermostat, normally open contact. This thermostat is set in the factory. This is a safety device and setting it higher will NOT make hotter water. If the circuit breakers do trip, one must check that there is not something restricting the water flow. The less water through the elements, the hotter the water becomes e.g. a small leak caused by a leaking O-ring, a leaking gun etc...

Commissioning

Turn on the tap and let the water tank fill up. Connect the high pressure hose to the brass outlet at the bottom/left of the cabinet using the black nut on hose end. Do not connect the gun yet.

Switch on the electricity supply, holding the high pressure hose in the one hand without the gun attached but pointing the hose in a safe direction.

Switch on the machine by depressing the button on the right hand door of the cabinet marked "**Pump**". Let the machine run until there is a continuous flow of water, Switch off machine by pushing the "**Pump**" button and connect the high pressure gun to the high pressure hose using the black nut on hose end. Connect the lance to the gun.

This machine has now been bled and is ready for operation. Switch on machine. It will build up pressure and go into bypass. If the gun trigger is not activated the machine will run in bypass for approximately 6 seconds and then switch off. If the gun is activated the pump will automatically switch on. Ensure the gun is pointed in a safe direction.

If hot water is required, the "**Heater**" button is depressed in conjunction with the "**Pump**" button. The water must flow continuously from the nozzle for 6 seconds before the heater contactors will be activated.

The DELAY-OFF timer on the running of the pump and the DELAY-ON timer on the heating elements provide a longer life operation of the control contactors.

If a chemical is needed in the cleaning process, a chemical pick-up pipe is provided with the machine (if ordered), remove the filter from the pipe and push it through the hole in the bottom of the cabinet. Replace the filter on the pipe and insert it in a chemical drum. If the "**Chem**" button is depressed on the door of the cabinet, the chemical is taken in with the water.

Never run the machine with the chemical drum empty and "Chem" button depressed! This causes the machine to cavitate, which can lead to damage of the gearbox.

Maintenance schedule

- Daily:** Ensure that there are no leaks on high pressure side of the machine, O-rings on hoses, guns, lances, and no holes in high pressure hose.
- Weekly:** Check oil level and if oil is grey or white in colour, replace by opening the sump screw at the bottom of the gearbox casing over a collection reservoir. The oil is to be collected in the reservoir and disposed of in an approved manner.
- Monthly:** Check for water leaks under pump head. If water is leaking under the pump heads, the seals may need to be replaced. This is to be done by a Kränzle trained technician.
- Check for oil leaks and if found, the oil seals or gaskets are faulty and must be replaced by a Kränzle trained technician.
- Check the water inlet filter and clean if necessary.
- 6-Monthly:** Check all cable connections on terminal points and contactors and tighten if necessary.