

Manual E4

220V

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Chapter 1 Introduction

The **E4 220V** is specially designed for injecting and pumping pastes as well as most premixed materials, such as :

- lime based renders
- micro elements
- coatings

Due to the fact that the motor is frequency inverted and different rotors/stators can be used, you can determine the conveying yield yourself.

The **E4 220V** can easily be dismantled, which makes it easy to clean the machine.

The **E4 220V** is made of stainless steel.

In order and to acquire optimal results, you are advised to read the guidelines in this manual; any person involved in operating and cleaning the **E4 220V** , should fully understand how the machine works to prevent accidents from occurring.

Sections marked **WARNING** deserve special attention, in order to protect both the person operating the machine and the machine itself.

The **E4 220V** is very reliable and is built according to the latest technological standards. The manufacturer is entitled to make modifications where necessary ; alternating the machines may be inevitable.

Both the guarantee which comes with the machine and the liability of the manufacturer are rejected if alterations are made without following the guidelines of the manual. People unfamiliar with the machine should not be allowed to tinker with it. The manufacturer is not responsible for problems caused by using parts other than the original ones.

Chapter 2

Liability according to EC guidelines (89/392/EC, schedule II, section A)

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hereby declares that the E4 220V,

serial number:

date of manufacture:

delivery date:

complies with the following EC guidelines:

1. 89/392/EC, revised by 91/368/EC, 93/44/EC and 93/68/EC
2. 89/336/EC, revised by 91/263/EC, 92/31/EC and 93/68/EC
3. 73/23/EC, enclosing 93/68/EC

Chapter 2 A survey of the E4

- 1) Main motor**
- 2) Nipple**
- 3) Drive chamber**
- 4) Discharge**
- 5) Hopper**
- 6) Rotor/Stator**
- 7) Pump outlet**
- 8) Main switch**
- 9) Selector switch manual/remote control**
- 10) Potentiometer**
- 11) Reset button with indicator**
- 12) On/off switch**
- 13) Material hose**
- 14) Spray gun**

Chapter 4 General safety instructions

- * Use the machine for its intended purpose only.
- * Always follow the instructions of the manual.
- * Persons who are either not trained or authorized to operate/clean the machine should not be allowed to do so.
- * A qualified person should inspect the machine at least once a year in order to guarantee its safety and liability
- * Always look for visible deficiencies before operating the machine.
- * Remove the main plug before servicing the machine.
- * Shut off the main power before opening those parts of the machine behind which opening the control box.
- * **WARNING:**
Always use a current distributor and a miniature circuit breaker.
- * Lock the control box before operating the machine; shut off the main power before opening the control box.
- * Always make sure the work site is dry.
- * Use safety glasses, dust masks and earplugs when operating the machine.
- * Reduce the risk of damage to the machine by keeping it away from:
 - moisture
 - frost
 - falling objects and objects flying around
 - lightning
- * Make sure the machine cannot fall over or roll away.
- * Persons who are not authorized to operate the machine should be kept at a safe distance.
- * Always release the pressure before disconnecting the various hoses.
- * Avoid cracks and bends in the transport hose in order to keep a constant pressure.
- * You are advised to use a pressure gauge to measure the pressure in the transport hose.
- * **Always** cover the couplings which connect the transport hose and the pump outlet before disconnecting the hose in order to reduce the risk of injuries (the pressure gauge might be malfunctioning!)
- * Dried materials or dirt may cause blockages in the transport hose; these blockages can seriously damage the rotor/stator and the transport hose.

- * The hose end or the spray gun should only be pointed at the surface which is to be treated.
- * Make sure the machine cannot move or fall over during transport.
- * **WARNING:**
Do not run an insulation test on a frequency inverted machine.
- * **WARNING:**
After shutting off the main power, you should wait for five minutes before removing the safety plate on the frequency inverter

Chapter 5 Operating instructions

1. Install the machine
2. Install the material hose and the spray gun.
3. Connect the electricity supply
- * **WARNING:**
Always use a current distributor and a miniature circuit breaker
4. Check if the machine works:
 - Turn on the main switch
 - Put the machine on manual
 - Turn the reversal switch to position 2 for a few seconds
5. The machine is working (if not, go to **trouble-shooter**)

Additional instructions

- A** If your **E4** is equipped with an air hose, you should provide for a compressor yourself.
- B** **WARNING:**
Always switch off the machine if you stop applying material, regardless of the period of time you wish to stop.
- C** If the machine has to be stopped for longer than ten minutes, the machine should be cleaned.
- D** It is possible that your machine is equipped with an air supply and a valve which supplies the material. If you wish to use them, **always** do so in the following order:
- ON:** 1. Open the air supply
 2. Open the valve which supplies the material
 3. Switch on the machine
- OFF:** 1. Switch off the machine
 2. Close the valve which supplies the material
 3. Close the air supply
- E** First switch off the machine if you wish to shut the material hose.

Chapter 6 Cleaning instructions

NOTE:

Most problems are caused by inefficient cleaning of the machine.

Some materials make cleaning necessary. Clean the machine as follows:

- 1 Remove all material
- 2 Fill the machine with water.
- 3 Disconnect the material hose

WARNING:

First release the pressure in the material hose; let the machine run in position 1 for a few seconds.

- 4 Insert two sponge cleaning balls into the material hose.
- 5 Switch on the machine. Switch it off when the two cleaning balls have come out of the hose end.
- 6 Repeat steps 4 & 5 if necessary.
- 7 Also clean the drive chamber and the pump outlet if necessary.

Chapter 7 Maintenance

- Regularly fill the nipple (300cc of Esso Spartan EP200)
- Remove dried materials from the pump outlet, the hopper, the drive chamber, the material hose and from the spray gun
- After approximately 7000 operating hours, the lubrication in the reducing box will have to be replaced by an identical lubricant. Do not use different kinds of lubricant.
- Regularly check the rotor. After some time the rotor will have to be replaced *.
- * Dependent on the material which is being pumped and on both the length and the diameter of the material hose.
- The machine should be inspected by a qualified person at least once a year in order to guarantee its safety and reliability
- A spare parts list is available on request.

Chapter 8 Trouble-shooter

Problem	Cause	Solution
The machine fails to start.	No power	Check: a. Power supply b. Safety fuses c. Automatic fuses inside the control box.
	Remote control is not connected.	Switch either to remote control or manual.
	The frequency inverter has tripped out.	Indicator on: Push the reset button and restart. Indicator off: Switch off the machine, turn the main switch off, wait for approx. 1 minute, turn on the main switch and restart.
Main motor fails to run.	The rotor is stuck in the stator.	Dismantle the rotor/stator and clean. Re-install the rotor using a small quantity of lubricant, e.g. washing-up liquid (do not use a petroleum based product)
The machine is running but fails to deliver the material.	A blockage in the pump outlet or in the hose.	Turn the reverse switch to position 1 and let the motor run until the material hose is decompressed. Clean the drive chamber and the material hose *.
	The main motor is running in the wrong direction.	Turn the reverse switch to pos. 2 (the cooling fan should now turn anti-clockwise).
	The mixing paddle is either placed too far down into the mixing pipe or is dislocated.	Insert the mixing paddle into the rotor and turn slightly upwards (anti-clockwise)
	The rotor stator is worn out.	Replace the rotor stator.

*

WARNING:

Look away when disconnecting the hose and cover the coupling.

Problem	Cause	Solution
The machine shuts down	A power shortage	Check the power supply; press the reset button before restarting.
	The frequency inverted has tripped out.	Press the reset button and restart.
	The remote control is malfunctioning.	Replace the remote control.
	A blockage in the material hose or in the pump outlet.	Remove the blockage. Press the reset button before restarting.

Chapter 9 Technical data

Pumping capacity	
Pressure	max. 25 bar
Conveying yield*	max. 3-6l/min. (110V model) max. 4-8l/min. (220V model)
Conveying distance*	max. 10m
Conveying height*	max. 7,5m
Power supply	110V-50/60Hz 220V-50/60Hz
Pump motor	0,75kW (110V model) 0,75/2,2kW(220V model)

* Dependent on the material, on both the length and the diameter of the material hose and on the sort of rotor/stator used.

Hoses	Normal pressure	Max. pressure
Material hose ¾" and 1"	40 bar	120 bar
Air hose 3/8"	18 bar	60 bar at 20° Celsius

Dimensions	
Length	1400mm
Depth	500mm
Height	700mm

Weight	
Total weight	211 kg

Chapter 10 Electrical Survey

S1	Main switch
S2	Reverse switch
S3	Off switch
S4	On switch
S5	Manual/remote control switch
X1	Power supply plug
X2	Remote control plug
Q1	Motor protection switch
G1	Frequency inverter
R1	Potentiometer
K1	Relay
H1	Indicator
M1	Motor 750W
RFI	Filter