



Simply Built to Last

MANUAL OF TECHNICAL INSTRUCTIONS

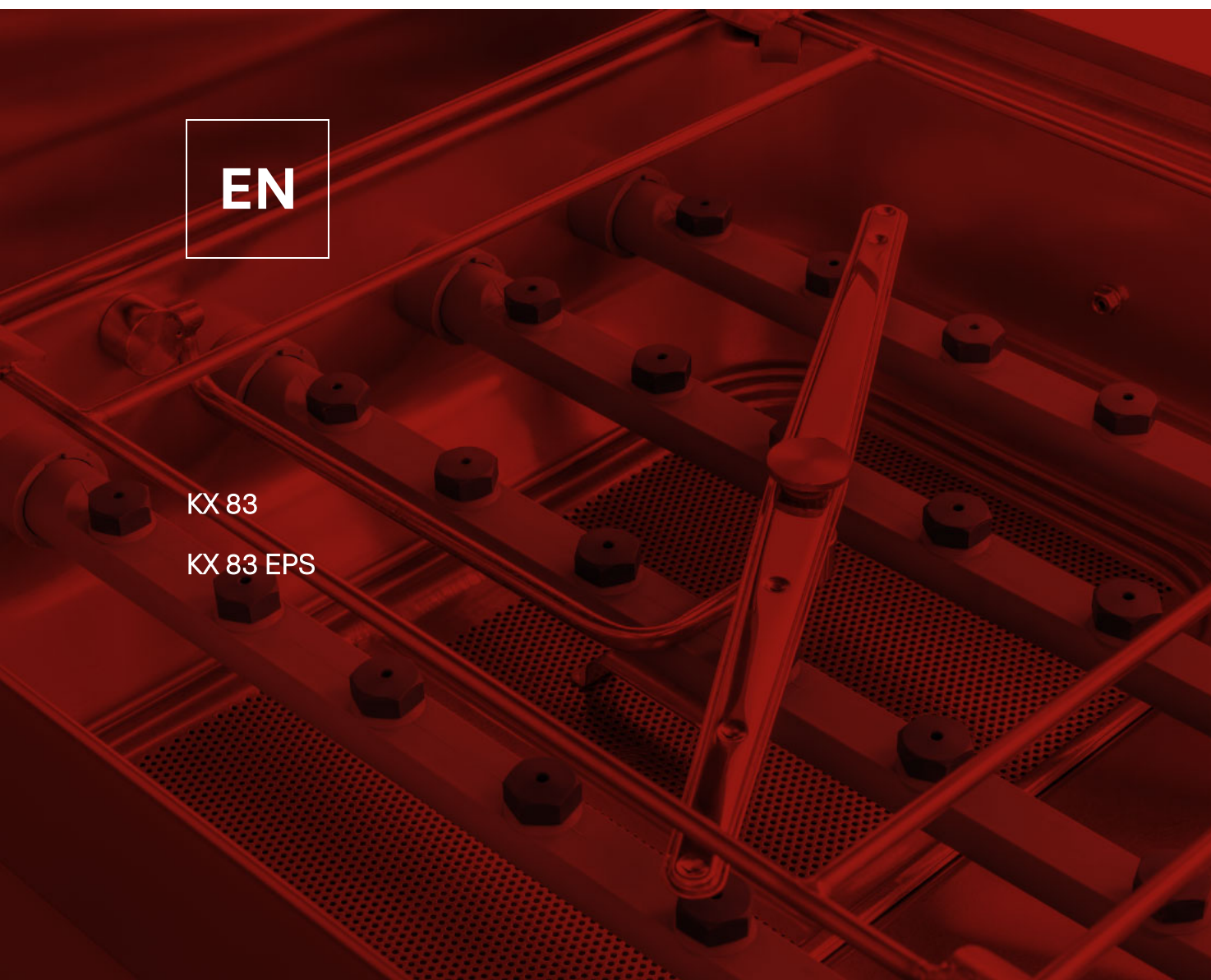
USER MANUAL

PASS THROUGH

EN

KX 83

KX 83 EPS



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IMPORTANT:

Specific detergent products for industrial use must be used, checking that the SANITARY REGISTRATION number appears on the packaging. Failure to do so will result in the loss of the warranty.

1. Instructions for the installer.

This manual provides the necessary information for the commissioning, operation, and maintenance of the following dome models: KX 83 and KX 83 EPS. The operation of the machine is simple, thanks to the system of lower fixed arm and upper rotating nozzles, the washing water at 65°C is fan-shaped against the dishes, with a circulation equivalent to a flow rate of 500 litres per minute. After washing, rinsing is carried out at 72°C, in this process water is mixed with polish automatically and its mission is to evaporate the water evenly, leaving the dishes dry and shiny for service.

1.1 Essential conditions for commissioning.

We must have the following elements (described in the installation drawings, attached to this manual).

- Ground level drainage. In case of having the drain on the wall (max. 1.2m from the ground), a drain pump will be necessary.
- Water intake with stopcock, finished in 3/4" thread. Rev.9.
- Three-phase or single-phase power line on request, with electrical panel equipped with circuit breaker and differential. According to international standards, the main switch must have a minimum contact spacing of 3mm.
- Protection line (grounding).
- Use softened water. Rev.10.

1.2 Machinery equipment and preparation.

The machine is equipped with:

- 4x6mm² hose cable (230V model. Three-phase +T) connected to the machine. Length 1.5m.
- 5x4mm² hose cable (400V model. Three-phase +N +T) connected to the machine. Length 1.5m.
- Ø19x12 pressure rubber, with their respective 3/4" connection fittings and gaskets.
- Drain rubber Ø35mm.
- 2 pcs of baskets for 500 x 500 plasticized metal rod cups

ALL MACHINE CHECKS AND CONNECTIONS MUST BE CARRIED OUT BY QUALIFIED TECHNICAL PERSONNEL OR BY THE OFFICIAL SERVICE

Proceed to the leveling of the machine by turning the adjustable feet, according to the needs of the floor.

Connect one end of the water inlet hose to the stopcock, and the other end to the inlet of the solenoid valve, located at the bottom front of the machine.

Connect the drain hose, one end to the general drain pipe of the machine, and the other to the external general drain (see installation drawings Ap.17)

ELECTRICAL CONNECTION

ATTENTION

CHECK THE MAINS VOLTAGE AND CHECK IT WITH THE MACHINE'S VOLTAGE

The machine must be connected to one of the following voltages: **400V 3N~+T**

230V 3~+T

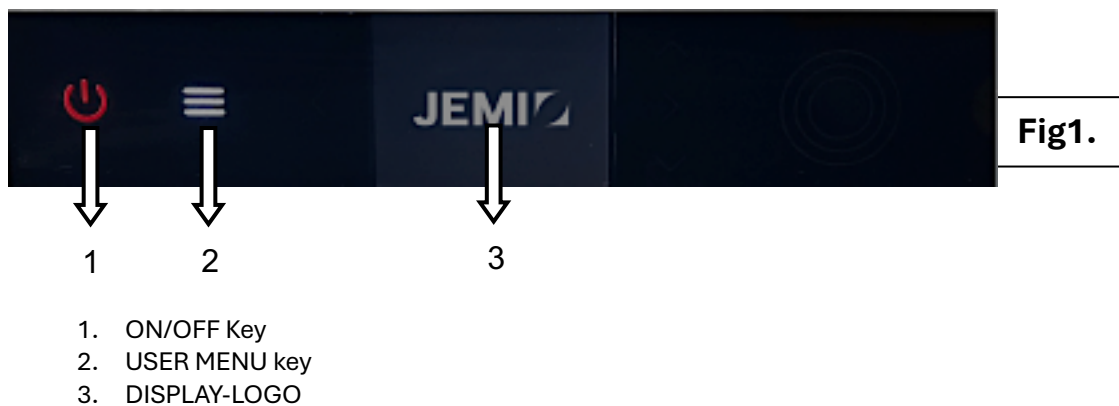
According to voltage indicated on the rating plate.

For other voltages consult us.

THE MODELS OF THESE MACHINES ARE DESIGNED FOR USE WITH SIDE TABLES FOR BASKET ENTRY AND EXIT, THE WHOLE SET IS ATTACHED TO THE WALL. SEE INSTALLATION PLANS.
Rev17.

1.3 DASHBOARD.

With the machine powered and switched off, the display displays the following screen. Fig1.
If no activity is performed after a few minutes, the USER MENU button (Fig1. No. 2.) It will turn off and the screen brightness will automatically dim.



By pressing the USER MENU button (Fig1. No. 2.) The following menu is accessed:



1.4 START-UP.

Once the operations indicated in the previous chapter have been carried out, they will be commissioned by the usual installer, or the Official Technical Service.

- Connect the machine to the power line. Ap.3.

- Connect the hoses. Ap3.
- Detergent. The machine has a socket for the connection of the detergent inlet pipe, in the case of one tank, it is located on the right side, and in the case of two tanks one is on the right side, and one on the left. The installation of an automatic detergent dispenser is recommended (not included).
- Place the tank filters and the overflow tube in position.
- Do a complete cycle (Ap.6), to check the operation of:
 - Thermometers
 - Resistances
 - Filling of tank(s)

1.5 OPERATING PROCESS (USER).

THE MACHINES ARE FOR PROFESSIONAL USE AND MUST BE USED BY QUALIFIED PERSONNEL.

- Place the tank and overflow filters and lower the hood.
- Press the green button Fig1.nº1 to give current to the entire circuit of the machine.
- The tank is filled automatically until the working level is reached, when this level is reached, if there is a pending program, the machine will finish it, and if there is not, the machine will begin the heating phase starting with the boiler.
- Once the working temperature in the tank (72°C) has been reached, the heating element is disconnected, and the tank heating element is connected until the working temperature (65°C) is reached, when this temperature is reached, the white light Fig1.nº2 is illuminated. With this process, we limit the installed power, since they cannot work, the resistance of the boiler and the tank at the same time. The resistors cannot be switched on if the water has not reached its level, since until then the pressure switch has the resistor circuit open.
- The detergent shall be dosed in accordance with paragraph 8.
- The machine has a 2-minute cycle.
- Raise the hood and insert one, placing the dishes correctly, respecting the maximum load of each basket. Check that the basket is correctly positioned and centered inside the machine to avoid bumps and breakages when the bell is lowered.
- Lower the hood, and a new wash cycle will begin.

THE TANK (NOT INCLUDED) CONTAINING THE RINSE AID MUST ALWAYS HAVE LIQUID ABOVE THE LEVEL OF THE SUCTION DUCT.

- The machine is equipped with an automatic start by closing the hood, when the hood is lowered it is automatically activated, and the white pilot light is turned on (Fig. 1nº3).

- At the end of the washing cycle, the white light Fig1.n°3(*) will be turned off, the hood will be raised, and the basket with the dishes cleaned will be removed, a new washing basket will be inserted, and the operation process will be repeated.
- (*) In EPS models, the cycle is extended by a few seconds, to perform the steam extraction.

1.6 EMPTYING THE MACHINE.

- Turn off the machine by pressing the green button Fig1.n°1 (the green light turns off).
- Raise the bell, remove the basket of dishes, and remove the overflow tube, the water in the tank will be emptied by gravity. Ap.14 (Option with drain pump).
- Clean. Rev.12.

ATTENTION:

THE TEMPERATURE OF THE WATER IN THE TANK CAN EXCEED 50°C, THERE IS A RISK OF SLIGHT BURN, WAIT FOR THE THERMOMETER (Fig1.n°5) TO MARK LESS THAN 50°C BEFORE REMOVING THE OVERFLOW TUBE.



1.7 EMPTYING THE MACHINE.

Use specific detergents for industrial dishwashers.

DO NOT USE HAND WASHING DETERGENTS, AS THEY PRODUCE A LOT OF FOAM AND ARE VERY DIFFICULT TO REMOVE.

- Together with the rinsing water and using a peristaltic dispenser, polishing liquid is mixed, which is intended to give the dishes a correct presentation.
- The rinse aid is placed in a plastic tank that is connected to the dispenser by a bluish plastic tube.
- The dose of rinse aid to be supplied by the dispenser is regulated by the factory (approximately 0.3 grams/liter).
- The tank should never be left empty, as the function of the dosing unit would be affected (the correct amount is not supplied due to the fact that there is air inside the duct).

ATTENTION:

1.8 WATER SUPPRESSION.

TAKE PRECAUTIONS IN THE HANDLING OF DETERGENTS AS THEY ARE CAUSTIC PRODUCTS

For the rinsing of the dishes, a pressure must be (200 – 400kPa), in order to obtain a good rinse and a correct presenta



If the pressure is lower than that indicated above, it is ESSENTIAL to attach a pump to the water inlet circuit, with the following characteristics:

- Pressure: 2 atmospheres (200 kPa).
- Power: 1 HP
- Single-phase 230V.

THESE COUPLINGS MUST BE CARRIED OUT BY THE USUAL INSTALLER OR THE OFFICIAL TECHNICAL SERVICE.

1.9 WATER HARDNESS.

An important chapter in the washing of dishes is made up of the water softener, a device designed to remove the limescale contained in the water. The lime precipitates on the material, placing a calcareous film: veil on the glass, fillings in the jets, incrustations in the resistors, ...

With a water softener, the problem and its consequences are eliminated, recommending that one be placed whenever the hardness of the water exceeds 5°HF

For optimal washing and conservation of crystal glasses, the use of osmosis water is recommended

IF YOU DO NOT USE SOFTENED WATER, PROBLEMS CAUSED BY LIMESCALE VOID THE WARRANTY

2.0 POSSIBLE INCIDENTS.

The machine does not fill the vat.

Inlet valve closed, or not connected, connect hose and open valve.

Clogged or faulty solenoid valve, clean filter, or replace solenoid valve.

Defective pressure switch, replace.

Insufficient pressure.

Clogged filter, clean.

Defective rinse.

Clogged rinse jets, clean.

Defective washing.

Clogged jets, clean.

Dirty water, empty the tank and clean the filter.

Lack of water due to dirt in the filter, clean the filter.

Dirt remains on the dishes, check choice of washing cycle.

Temperature, check thermostat regulation and tank resistance.

Dirt not removed, ensure that the detergent concentration is sufficient.

The arms do not rotate, disassemble them and ensure their correct placement.

Presence of foam.

Wrong detergent, change detergent type.

Excess rinse aid, check rinse aid concentration.

Defect in tank temperature, check thermostat regulation and tank resistance.

Wet dishes.

Lack of rinse aid, empty rinse aid tank, regulation of the dispenser, or defective dispenser.

Lack of temperature in rinsing, check the resistance of the boiler, as well as the regulation of its thermostat.

Glass with grease film.

Excess rinse aid, regulate the dispenser.

Whitish glass.

Water with excess limescale, damaged or missing water softener.

Glass with marked drops.

Water with excess limescale, damaged or missing water softener.

Lack of rinse aid, empty rinse aid tank, regulation of the dispenser, or defective dispenser.

Campana does not go up, or it does not go down.

Anomaly in the spring system, do not manipulate or force the bell, and contact Technical Service.

The aforementioned points are original, for any query or problem resolution, contact our Technical Service.

2.1 STORAGE.

For the good maintenance of the machine, it is essential to comply with the following points.

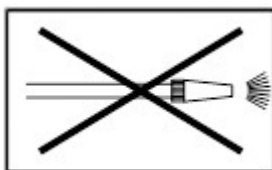
ALL MAINTENANCE OPERATIONS WILL BE CARRIED OUT WITH THE MACHINE DISCONNECTED FROM THE POWER SUPPLY, START-UP SWITCH OFF AND THE MAIN SWITCH DISCONNECTED.

- Empty it daily, removing the overflow tube and cleaning its interior.
- Remove the filter from the pump and wash it under a tap.
- Remove the washing arms and clean them of impurities.
- Check if the rinse jets are clogged.
- Clean the inside and outside of the machine with neutral detergents (not oxidizing or abrasive).
- Once the above operations have been carried out, place all the pieces in the corresponding place, leaving the hood open to finish drying the interior and avoid odors.

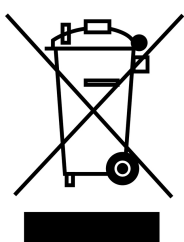
The machine is ready to do its job the next day.

WE RECOMMEND A GENERAL SERVICE AT LEAST ONCE A YEAR.

- **DO NOT CLEAN THE MACHINE WITH PRESSURIZED**



2.2 WASTE MANAGEMENT.



Disposal of packaging material: comply with the rules, so that they can be reused.

- The European standard on the disposal of electrical and electronic equipment indicates that household appliances should not be disposed of in the same way as municipal solid waste.

Disused appliances must be collected

separately to optimize the percentage of recovery and recycling of the materials that compose them and prevent potential damage to health and the environment. The crossed-out bin symbol is found on all products to remind you of the separate

collection obligation.

For more information on the correct disposal of household appliances, owners of the same may contact the responsible public service or resellers.

2.3 DRAIN PUMP (optional).

This device should be used in premises that, for some reason, do not have a ground-level drain and therefore the water that remains after a wash cycle, must be sent to the wall drain via the pump.

When the machine starts the rinsing cycle (more water enters the washing tank), the drain pump begins to absorb the water remaining in the tank and sends it to the drain, the indicator light Fig1.nº7 comes on.

At the end of the cycle, to empty the machine, remove the overflow pipe, and turn off the machine by pressing the green button Fig1.n°1 (the green light turns off). With the machine plugged in, press the Fig1.n°7 button, and the machine will empty automatically. The bell can be raised during this operation.

2.4 PERISTALTIC PUMP (Optional).

Suction height: 1.5m.

Working time: 0 to 4s $\pm 15\%$

Pause Time: 0 to 4s $\pm 15\%$

In the installation phase of the pump, see NAMEPLATE.

CHECK:

- The membrane tube is made of the material compatible with the product to be dosed.
- The supply voltage is applicable.
- The pressure at the suction point is equal to or less than the nominal pressure.
- The suction hose must be immersed in the product tank and connected to the suction fitting of the pump (marked by the symbol ▲ on the lid) and secured with its corresponding nut.
- The product outlet pipe must be connected to the outlet (marked by the ▼ symbol on the lid).
- The pump is connected to the mains, so that there is a single-pole interrupting device with a contact opening distance of at least 3mm.

FAILURE TO FOLLOW THE ABOVE WARNINGS MAY RESULT IN INJURY TO PERSONS OR IMPROPER OPERATION AND DAMAGE TO THE MACHINE

THIS PRODUCT SHOULD BE USED EXCLUSIVELY AS A COMPONENT TO BE PLACED INSIDE A MACHINE.

BEFORE CARRYING OUT ANY INTERVENTION ON THE PUMP, DISCONNECT THE SUPPLY VOLTAGE FROM THE MACHINE.

ASSEMBLY INSTRUCTIONS.

CONNECTION TO THE CUBA.

Connect the pump outlet pipe to the machine's metal detergent socket (in the case of one tank, it is located on the right side, and in the case of two tanks there is one on the right side, and the other on the left, hidden by the side closing plates, this sheet(s) must be disassembled).

2.5 SAFETY WARNINGS.

- Any use of the machine for which it has not been designed will be considered unsuitable and therefore dangerous.
- The qualified professional who performs the installation must teach the user about the operation of the machine, and the safety rules that must be respected.
- Any intervention on the machine must be carried out by the usual Installer, or the Official Technical Service.
- Before carrying out any cleaning, maintenance or repair operations, disconnect the machine from the electrical and hydraulic network.
- The machine should be used only by trained personnel.
- At the end of the day, remove the tension from the appliance.
- Do not use the machine as a stand, the machine has been designed to support the weight of the objects to be washed.
- Do not use the machine to wash objects for which it has not been designed (shape, size, material, ...)
- To avoid damage to the machine, remove solid residues from the objects to be washed.
- If fluid leaks are observed or the machine is not working properly, disconnect the machine from the mains, and turn off the water flow.
- Do not expose the machine to atmospheric agents (rain, sun,...).
- Do not start a program if the overflow is not in place.
- Do not bring magnetic objects close to the machine.
- For cleaning the machine, do not use steel brushes, abrasive sponges or acids.
- Do not use pressurized water to wash the machine.