

MANUAL

Knife Sterilizer Operation Manual



CAT 6801 and 6801HZ

Revision 1

1800 669 006

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1. Before Use

Before beginning operations related to transport, installation, commissioning, cleaning, maintenance and repair of the device, read this instruction manual.

All persons involved in the execution of these tasks, must observe this manual. To protect the people and things you should follow a safety rules contained in this document and in your workplace.

Compliance with the information and recommendations contained in this document, safety rules and instructions for start-up and any other instruction is necessary in order to avoid hazards and damage.

It is required that all work related to transportation, assembly, installation (connection to the electricity grid, connection to water and sewage networks), commissioning, cleaning, maintenance and repairs must be performed by qualified personnel with the appropriate permissions.

Important!

All element related directions do not apply to CAT 6801HZ.

2. INTRODUCTION

This product is made of 304 grade stainless steel.

304 grade stainless steel is austenitic chrome-nickel low carbon steel. It is used in food and chemical industry equipment, etc. This steel is corrosion-resistant in the atmospheric environment, natural water, alkali solutions and some organic and inorganic acids.

Chemical composition of 304 grade stainless steel:

C < 0.03%;	Si < 1.0%;
Mn < 2.0%;	P < 0.045%;
S < 0.015%;	N < 0.011%;
Cr = 18.0%-20.0%;	Ni = 10.0%-12.0%

3. PACKAGING

The manufacturer sends the device protected by two layers of foil:

Outer layer - foil stretch,

Inner layer - foil technology (not applicable to devices with surface polished ceramic).

Before installation steps should be removed from the machine stretch foil and check if the device has not been damaged during transport.

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4. Installation

Sterilizer should be installed as per site's separate technological design.

The device must be installed securely in place to provide a stable position in performing sterilization of the knives. Device can be mounted on the wall.

*** Mounting should guarantee the safe operation of the device.**

To install the sterilizer:

Determine the mounting points of the sterilizer,

Select appropriate mounting pegs depending on the type of wall (recommended mounting height is 850 mm from floor level),

Connection of the water system (flow is recommended to use a check valve and globe valve with filter and must be done by a competent Plumber),

Connection to the sewage system (must be done by a competent Plumber),

Connection to the electrical system, from a 240 V socket (must be done by a competent Election).

It is necessary to clean the water system before connecting the device to it.

It is required to have a needle control valve and a elbow coupling of 10mm in order to have a proper connection and water flow.

5. Operation

Open the valve on the water flow and fill the sterilizer with water, warm or cold, up to the overflow drain. Close the valve for the duration of heating the water. Insert the plug into a socket 240 V. After obtaining the correct temperature, open the valve at the desired opening position. Place the knife on the frame.

The pre-set temperature to which the water is heated is 83 °C. The temperature can be adjusted from 83 °C to 90 °C with a potentiometer built into the electric heater. To adjust the temperature, take off the black rubber cap from the front of the device and turn the screw clockwise or anticlockwise to adjust the temperature. Place the black rubber cap back on the device after adjusting.

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Note

The device should work with a constant flush overflow.

Keep the sterilizer clean. In the case of water containing sediments and hard water causing scale build up, regular inspections and scale removal is necessary.

After operation, switch off the unit and disconnect it from power, and drain the water (unscrew the overflow pipe). Remove any impurities. Do Not use the sterilizer without water!

6. Specifications

Length	300mm
Width	160mm
Height	350mm
Weight	7.2 kg
Power supply	240 V
Power installed	1,5 kW
Cold water supply connection	3/8"
Water discharge spout	1/2"
The maximum water temperature	Max. 90°C
Security level	IP 44

6.1 Intended use

The sterilizer is intended to sterilize knives with hot water at about 83 °C.

6.2 Design

The construction of the sterilizer is shown in the Exploded Drawing on page 10.

Water heating and maintaining the correct temperature provides electric heater with built-in potentiometer temperature. (A built-in potentiometer electric heater provides heated water and maintains the correct temperature.) Heat shield protects the knives (mounted on a frame) from damage. Installed in the housing tank bimetallic thermometer allows for control the temperature of the water. Water supply provides a spout and overflow drain bushing screwed into the socket outlet. For mounting on the wall the sterilizer has handles with holes. All components except the electric heater are made of stainless steel.

The unit is supplied with a cable L = 1.4 m with plug 10 A / 240 V to ground.

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7. OHS RULES

Prior to proceeding with cleaning, it is absolutely required to read data sheets of products applied for cleaning and follow manufacturers' guidelines. It is necessary to use personal protective equipment, ensure adequate ventilation and pay attention to fire hazards.

General Industrial Safety regulations apply.

8. MAINTENANCE AND CLEANING

When using stainless steel furniture and equipment, a layer of chromium oxide present on the steel surface must be taken care of. Compounds used in food industry which disturb the passive layer (chromium oxide) include compounds containing chlorides – salt, disinfectants and acids (water from sauerkraut, cucumbers, acid juices, vinegar, etc.). Water is the most effective neutraliser of chlorides and weak acids.

Stainless steel is not an exception to this rule and each user must be aware that regular cleaning and maintenance of stainless products is required.

Cleaning should remove dirt and sediments, which left for too long on a stainless steel surface may initiate corrosion and tarnishing of the surface. In a highly contaminated or aggressive environment (seaside towns, rooms of increased humidity and temperature, rooms requiring frequent use of disinfectants, in particular containing chloride compounds), cleaning should be done more frequently. The frequency of cleaning should be empirically determined.

In order to prevent a surface of stainless steel equipment from being destroyed due to inappropriate maintenance, the following guidelines should be complied with:

The following should not be used: agents containing chlorides and bleach or – under any circumstances
- silver cleaners.

- Steel wool, sand paper, rough cleaners, scouring, grinding and polishing powders, etc. are not to be used as they scratch the surface.

- Steel pads for scouring or wire brushes can not be used – they can leave sediments of carbon steel on the surface which will eventually lead to material rusting.

First discolouration and dusts appearing during material use can be removed with a regular piece of cloth, chamois leather or a nylon sponge in case of higher contaminations.

If iron particles generated during installation, etc. appear on stainless steel components, they should be immediately removed. Such particles corrode, thus they can break the passive layer protecting stainless steel, leading to corrosion as a result. Such sediments should be removed mechanically or with stainless steel cleaning agents.

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- If there are pits on a component, they should be pickled with acid or removed mechanically.
- Local discolouration, grease marks – if small, they can be removed with soap water.
- **Products for cleaning stainless steel and alcohol-based preparations can be used for cleaning – they do not pose a threat to the corrosion properties of stainless steel.**
- After cleaning, it is always recommended to polish the surface with a dry piece of cloth.

The table below presents the most frequent types of contaminations and methods of handling:

Contaminations	Cleaners
Finger marks	Water with soap and detergent Glass cleaning agents without chlorides
Lime sediment	Vinegar-water solution
Oil and greases	Alcohol-based agents (only with methyl alcohol, isopropyl alcohol) Solvents, e.g. acetone
Paints	Agents for removing paint coating, based on alkaline compounds or solvents.
Cement and mortar	Solvent containing a small amount of phosphoric acid, then water
Iron particles – from tools and after contact with structural steel	At an early stage – mechanically If pits appear—with pickling and passivating pastes

The frequency of cleaning components made of stainless steel is individual – it all depends on the degree of wear and contamination. It should be done in frequent intervals so as to reduce the risk of stainless steel component rusting. The frequency of cleaning of stainless steel devices is analogous to the frequency of cleaning household sinks, stainless steel.

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8.1 Cleaning

The device is not a watertight, so it is forbidden to wash it using pressure devices.

DO NOT:

Use chloric detergents for washing the device.

8.2 Maintenance

Each time after cleaning the device, check all metal parts in terms of their functioning, material wear and tear as well as device tightness.

Repairs and maintenance inspections may be performed only by a trained and authorized person.

Periodically (as per relevant regulations) inspect the condition and resistance of wiring insulation, as well as the effectiveness of neutral grounding.

8.3 PASSIVE LAYER

In stainless steels, oxygen reacts with chrome atoms contained in steel. Chrome atoms and oxygen form a layer of chromium oxide which provides a natural protection against corrosion factors. The above phenomenon is called a surface passivation reaction, hence the resulting protective layer is referred to as a passive layer.

8.4 CORROSION

Although, the passive layer is formed on stainless steel surfaces, **there are cases when it corrodes due to the following conditions:**

- Influence of hydrochloric acid and chlorine,
- No ongoing maintenance which leads to the formation of strong acid solutions on steel walls (water evaporates and an acid solution remains),
- An environment more aggressive than the steel provided for it;
- Contamination during installation and manufacture (lime, cement, foreign metallic inclusions as a result of using angle grinders nearby or unsuitable assembly tools),
- Contact with normal carbon steel (scratching with black steel during transportation or storage),
- Insufficient room ventilation or even their absence in aggressive environments (there must always be an air flow in ventilation ducts).

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Symptoms of stainless steel corrosion are different. One can notice that corrosion appears usually on various types of internal (non-metallic inclusions, separations, deformations) and external (edges, scratches, dents, residues of scale, sediments, etc.) surfaces, while smooth and homogenous surfaces are much more resistant to corrosion. Therefore, it is necessary to ensure proper pickling and passivation of a surface.

The mechanism of destruction and the type of corrosion depend on a specific environment and steel affected by it. The following types of corrosion may occur depending on the environment and stainless steel:

- Surface (uniform), Pitting,
- Intergranular, Stress,
- Crevice.

Pitting corrosion is the most frequently occurring corrosion caused by inappropriate stainless steel maintenance, more specifically due to the use of chlorinated cleaning agents.

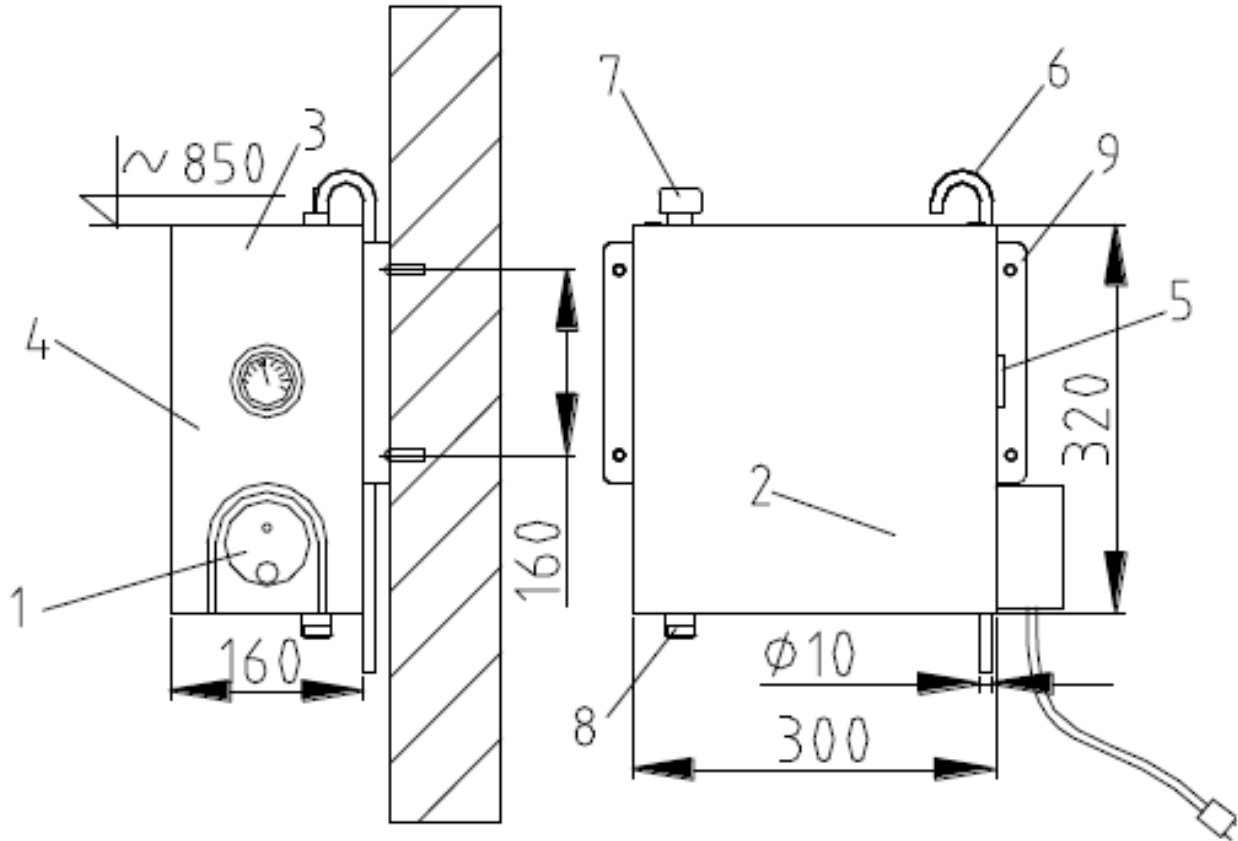
Pitting corrosion is a form of a localised environmental attack leading to local losses (pits) in material. It is caused by the influence of galvanic cells formed between a passivated steel surface and clearly localised non-passivation areas laying on it. Oxygen or oxidising substances in a cathodic cell areas (passivated) are required for pitting corrosion to occur. If they are absent, cathodic areas polarize and the cell stops functioning.

Solutions which cause pitting corrosion of stainless steels most frequently are chlorine solutions. For this type of corrosion, condition of a steel surface is very important. The smoother and cleaner the surface, the smaller the intensity of said corrosion.

A quality assessment of the effects of this type corrosion is difficult, since damage can be very serious at a minor weight loss. It is assumed that an average number of pits per area unit and their greatest depth can serve as some indicators.

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9. Exploded Drawing



1	electric heater
2	cover heater
3	rack for knives
4	housing tank
5	bimetallic thermometer
6	Spout
7	sleeve overflow
8	discharge outlet
9	mounting bracket

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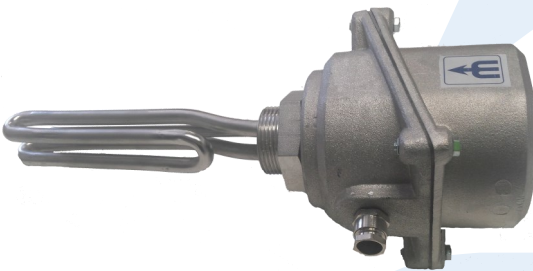

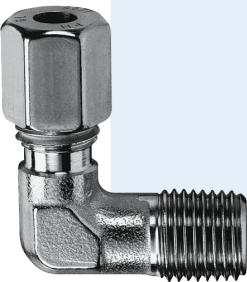
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10. Spare parts

Item	Code	QTY
	CAT 6601	1
Element & Thermostat		
	CAT 6602	Optional Upgrade to a IP65—1.5kW
Element & Thermostat		
	CAT 66 101	Optional
Control Valve		
	CAT 66 102	Optional
Elbow coupling 10mm		

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