

# KEN TW 1225

# - unique trolley washer individually built for your needs!



KEN TW 1225 is tested by Steins Laboratory

# KEN TW 1225 washing method

The washing chamber is equipped with a rectangular washing frame that is mounted with both washing and rinsing nozzles. During the washing and rinsing cycles, the washing frame moves vertically over the item. In the bottom of the washing chamber, specially designed steering tracks ensure that items are placed correctly in the chamber and stay in place during the entire wash. Once an item is placed and secured in the washing chamber, the start button is activated, and the door closes automatically. When both the washing and rinsing cycles are complete, the door opens automatically, and the items can be removed.

Both the washing chamber, the washing frame and the steering tracks are built and modified according to the size of the items that are to be washed.

The bottom of the washing chamber is positioned 400 mm below floor level which provides direct transport from floor level. Drainage is mounted under the machine.

Standard delivery of the machine includes one door for manually inserting and removing items. KEN TW 1225 trolley washer is a compact dishwasher that is designed to wash large objects such as food transport trolleys – including Z-trolleys, tray racks, mixing kettles, etc.

The machine is produced in Denmark and is just as flexible as the number of different items it can wash! If the user has tray racks, trolleys, kettles, etc. in specific sizes that need to be washed, then the machine and accessories can be built to match these needs.















KEN TW 1225 is simple and easy to use:

- ► The item is loaded into the machine
- ► The washing programme is activated
- ► The door closes automatically
- ► The item is washed and disinfected
- The door opens automatically when finished

#### Washing programmes

KEN TW 1225 is equipped with a PLC operating system made by Siemens/Allen Bradley.

The operating system consists of 9 programmes that can be individually programmed according to, among other things, the times and temperatures needed for the items to be washed.

This means that every program can include the functions necessary to provide an optimal wash.

Standard washing times are 3-4 minutes and are adjustable.

Total water consumption per wash is approx. 40 lit. of water. When starting the machine, approx. 100 lit. of water is filled in the wash chamber and approx. 40 lit. of water is filled in the rinse hot water tank. During the wash, the wash water recirculates and can be used again until the water has to be replaced with clean water.

The rinse water drains into the washing chamber whereby the wash water is mixed with approx. 40 lit. of clean, hot rinse water.

The machine is equipped with an exhaust fan that starts automatically when the hot rinse begins and stops automatically when the wash is finished. The exhaust function can be programmed in the PLC with start, stop and duration of ventilation.



SIEMENS SIMATIC PANEL

All of the functions are shown in a display with clear information text, and the functions are monitored electronically. In the event of an error, an alarm will be displayed and the washing cycle will stop.

#### Hot water disinfection

VWashing typically occurs at  $55 - 65^{\circ}$  C and rinsing at  $80 - 90^{\circ}$  C. Rinsing at this temperature fulfills the demand for hot water disinfection in the washing process. The high rinse temperature also creates water drops that generate steam for 1 - 2 minutes after the wash. This acts as a drying process and thereby dramatically reduces the amount of energy used.

Washing and rinsing temperatures are adjustable.



# Accessories

► KEN TW 1225 can be built as a 2-doors pass-through (tunnel) solution so that unclean items can be loaded in one side and after disinfection, unloaded on the other side. This is clearly a hygienic advantage for large kitchens where unclean and clean areas (before and after washing) are sharply separated.

▶ If needed, a rotating center nozzle can be mounted in the top of the washing chamber. This center nozzle moves up and down while washing the inside of containers, trolleys and tray racks. The center nozzle is adjustable and rotates during wash and rinse cycles.

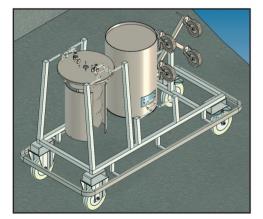
▶ Option for an integrated printer for documentation of the washing process (date, time, wash programme, duration and temperature). The machine can also be delivered with a connection to a data bus, so data can be directly transferred from the machine to a local PC for data accumulation.

► The machine is designed for automatic chemical dosing system e.g. detergent during the washing cycle and water softener during the rinsing cycle. The machine is also delivered with a chemical dosing system of your choice.

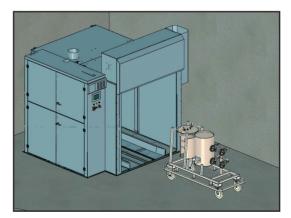
- Option for steam heating.
- Recommended spare parts pack can be purchased as an accessory.

► The machine can also be supplemented with specially designed trolley racks that ensure a hygienic wash of various items at the same time – e.g. 10-50 lit. containers, mixing kettles, etc. The racks are designed in co-operation with the user, so that specific washing needs are met.





Specially designed trolley rack.



► Water treatment is highly recommended, as the quality of the water used during the wash is very important in order to achieve the perfect wash result. If a spot free wash result is desired, a KEN water treatment system is recommended. KENs service department provides service on KEN water treatment systems.





# Technical data

Measurments:	The machine is built in accordance with the users needs and in relation to the items to be washed. The following dimensions are the minimum measurements and are for a one-door standard model. Exterior measurements (standard): L: 1733 mm. W: 2105 mm. H: 2900 mm. Washing chamber (standard): L: 1400 mm. W: 1280 mm. D: 2000 mm.
Electronic connection:	3 x 400 V , 50 Hz – 43,5 kW, 63 Amp. (during steam heating 7 kW, 16 Amp.)
Water connection:	Soft water (max 1-2° dH). Water treatment system is recommended. Min. 2 bar, max. 8 bar. at 12 lit./min. 10 - 55° C
Steam:	0,5 bar/hr., 1 bar, max. 4 bar
Air pressure:	6 bar
Noise level:	Less than 70 dB(A)
Operating system:	PLC (Programmable Logic Controller) made by Siemens/Allen Bradley. The operating system consists of 9 programmes that can be individually programmed.
Water consumption:	Approx. 40 lit. of water per wash. When starting the machine, approx. 150 lit. of water is filled in the wash chamber and approx. 40 lit. of water in the hot water rinse tank.
Duration:	Washing times are 3-4 minutes and are adjustable.
Chemical dosing system:	The machine is designed for automatic chemical dosing system e.g. detergent during the washing cycle and water softener during the rinsing cycle. A chemical dosing system can be purchased as an accessory.
Drying:	After rinsing at a temperature of 85° C, a natural evaporation process takes place. If ad- ditional drying is required, this function can be purchased as an accessory.

#### **KEN Service**

KEN offers a wide range of services which ensure that the customer maintains operational reliability with continuous high performing machines and equipment. The customer has the option of choosing the services that cover their needs. As a standard solution, KEN offers a Total Service solution that includes:

tion that

- ► All expenses for maintenance of KEN machines.
- Preventive maintenance plus free telephone support (hot line) and replacement parts.
- ▶ The price of the Total Service solution depends upon the machine's stress capacity.

Contact KEN service via tel. +45 70 10 20 91 or service@ken.dk for more information on our service concepts.