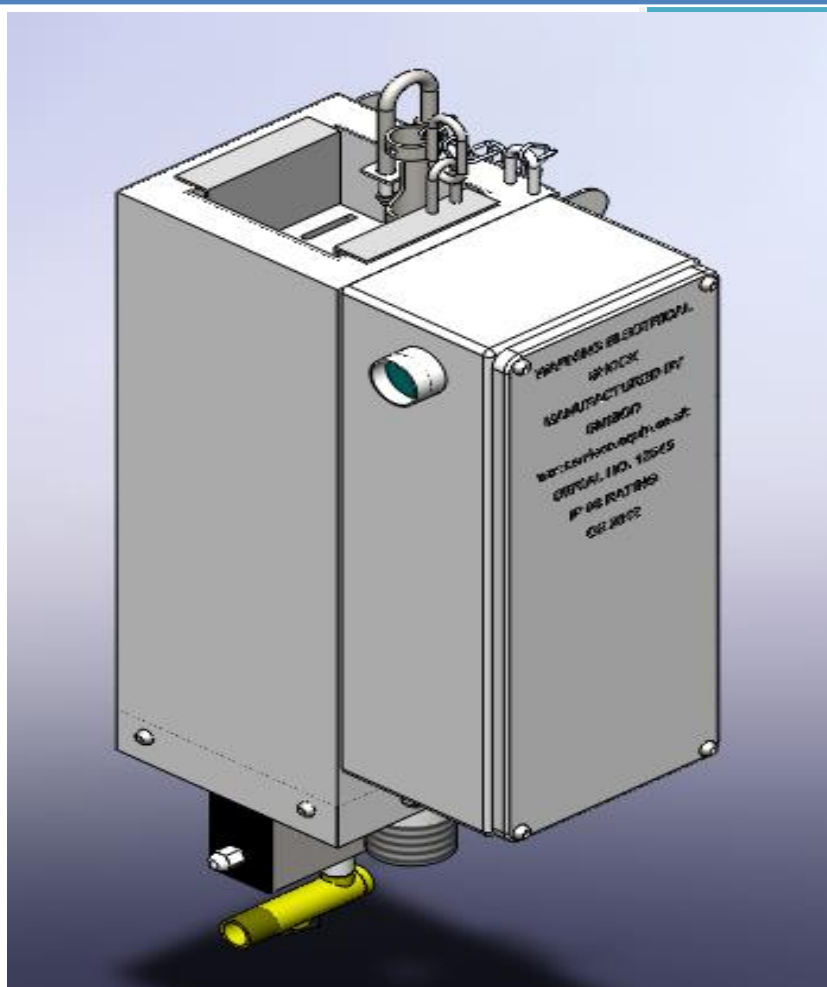


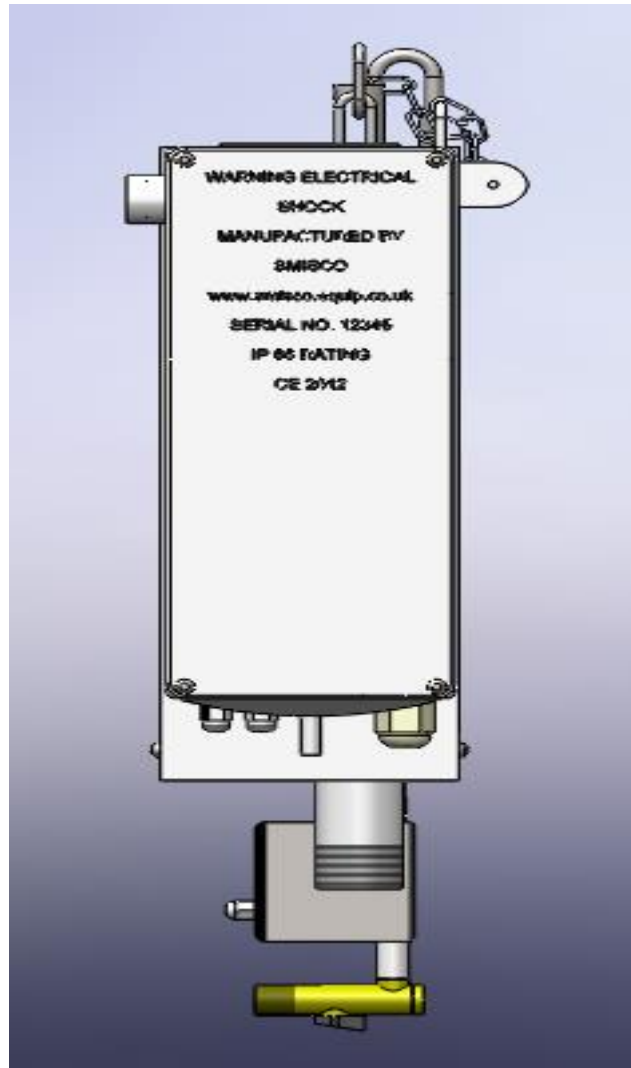
SMISCO
Food Equipment
"A Vital Link In The Food Chain"

Est1978

Smisco Electronic Sterilizer with PT100



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Email: smisco@eircom.net. www.smiscofoodequipment.com



Technical Specification of PT100-4KN Electronic Sterilizer.

Dimensions overall length excluding solenoid valve 425mm L x 270mm W x 150mm D, inner shell 100mm x 100mm x 300mm deep, water holding capacity 2.5Ltr, electrical enclosure 400mm H x 110mm x 150mm wide, weight approx. 15 kg, in feed water connection male $\frac{1}{2}$ "BSP, waste water outlet male 1"BSP.

Provision to hold 4 Knives in slots 5mm x 40mm long x 160mm blade length.

Mounting Brackets 2no 30mm x 30mm x 3.0mm x 8mm holes located 50mm from top.

It is not recommended to weld brackets to outer shell, supplied brackets for securing to Sinks/Tables/Conveyors/Work Station's, Platforms by method of bolts fasteners only.

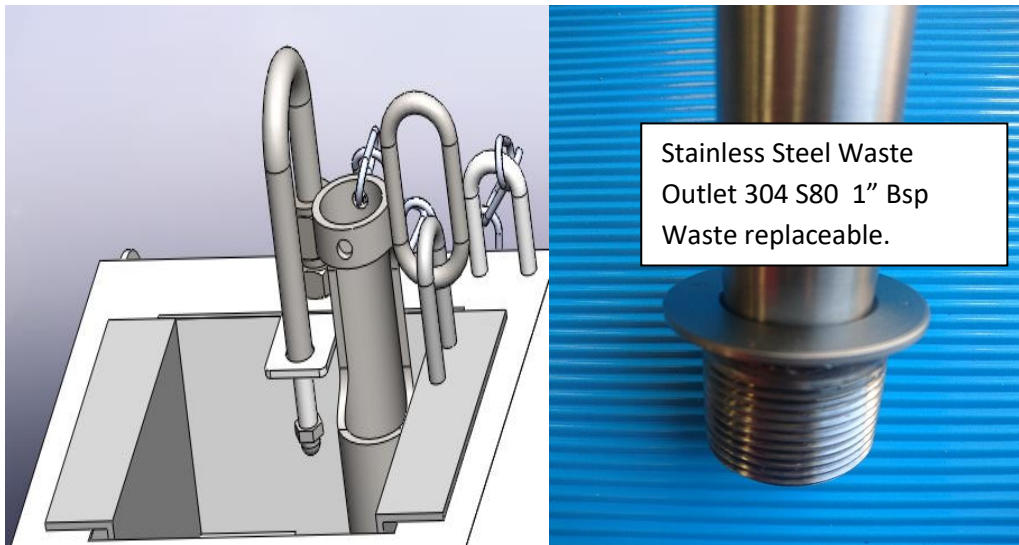
Optional Pillar mounting Leg 850mm long if required also hinged top cover.

Smisco introduces the latest Technology in Sterilization for the Slaughtering Industry in which it now incorporates "Digital Control" of Temperature incorporating digital controller with ss "PT100", this technology compact in design give more accuracy for Sterilizer to

The Electrical enclosure IP68 has a manual Flush Button located for easy cleaning of Sterilizer this function cleans of any fat ,blood or residue that may build up if butcher does not pre wash knives, even though the industry requires that butchers prewash knives before sterilization sometimes butchers in a busy abattoir do not get time to carry out this procedure, Smisco has incorporated this feature so that operator by pressing button for a few seconds will clean off any build up without draining sterilizer and holding temperature of 83Deg C.

Sterilizer can be adapted for Manual or Automatic Flushing from 2 to 100 seconds depending on availability of "Ring Mains Hot water above 90Deg C. The Stainless-Steel Conductivity Probe controls the complete operation of the Sterilizer in which unless there is water within Sterilizer it will not function protecting Stainless Steel Heat Cartridge from burning out, this is a safety feature to protect heating element.

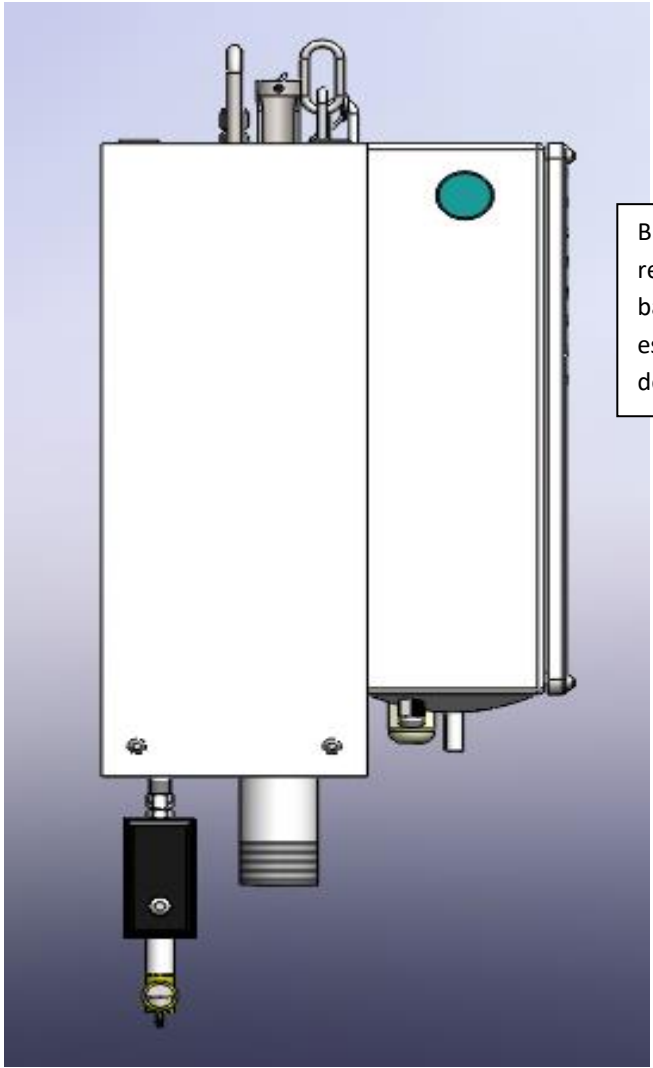
The Knife Basket Holder and Overflow Stand Pipe are merged together so that they cannot be displaced also protect operators from high temperature water.



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It is important that Probe be kept clean using the EC853/2004 directive.



Main Outer
Shell of
Sterilizer
1.5mm 304 ss,
insulation
25mm
thickness

Blue Flush Button for quick
response cleaning should knife
basket for knives get soiled,
estimated use 3 Sec to clear
depending on water pressure

Description Overview

The Stainless-Steel electrical enclosure IP68, Smisco has designed this enclosure manufactured from 2.0mm stainless steel, the access enclosure cover secured by 9 screws has a silicon seal bonded to cover and when tightened to full capacity will withstand 3000psi also steam at 3bar.

The components stored within this enclosure include an RCBO for protection, Liquid Level Relay which controls the operating principal of sterilizer, through an adjustable conductivity probe, The Digital Controller attached to a Stainless Steel PT100 capillary tube feeding into a concealed pocket within inner shell of sterilizer to achieve maximum accuracy and peace of mind.

The power supply unit (PSU 24/36 Watt) VDC for operating 10 Watt solenoid valve.

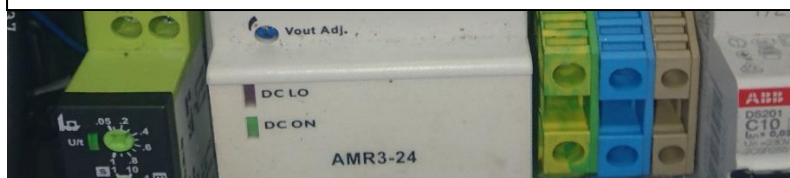
All components are in compliance with CE certificate for safety and performance and are corrosion resistant including din rail bracket.

Digital Temperature Controller c/w PT100



IP68 Enclosure with Silicon to withstand daily operation in Slaughtering environment withstanding High Pressure Cleaning and chemical resistance.

Stainless Steel 316L PT100 Digital sensing Probe for accurate control between 84.1 to 91.1 DegC.



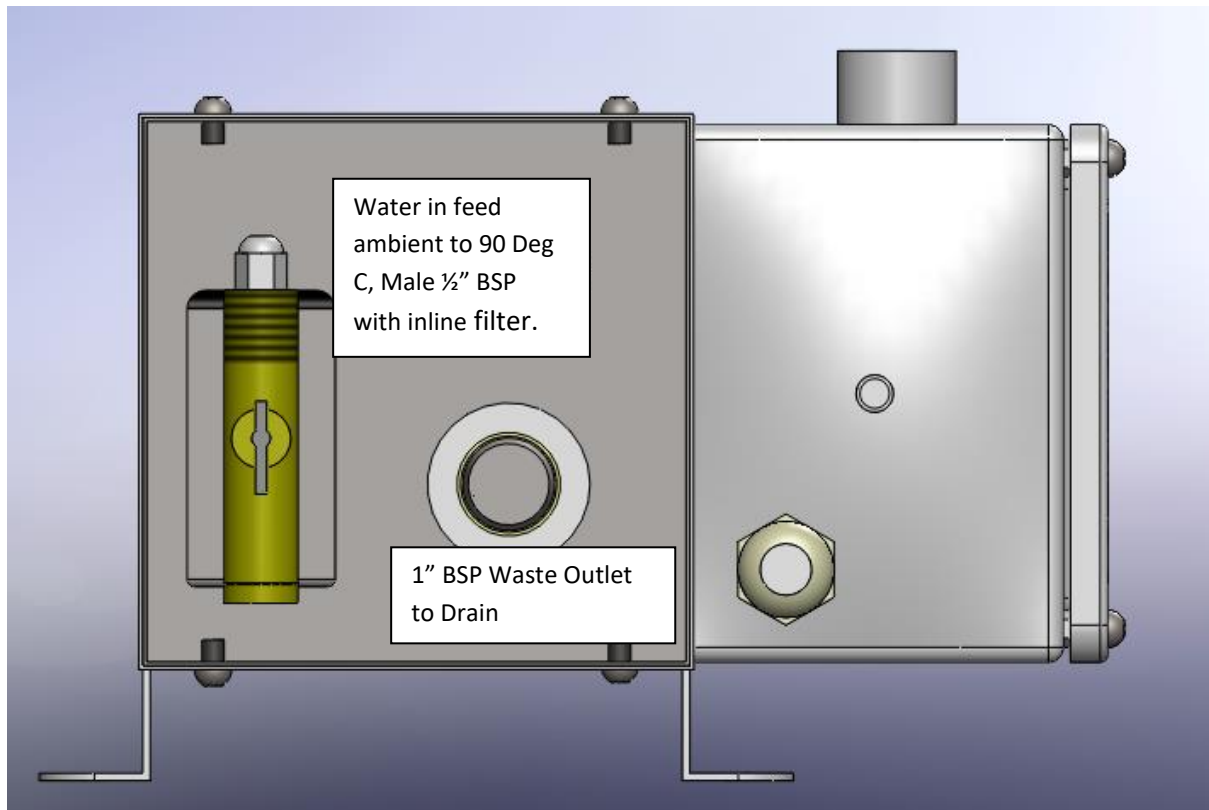
Sterilizer insulated on all 5 exterior walls to hold temperature minimum 84Deg C, overall heating time from 15DegC to 83DegC= 12minutes, KWh 0.02 (200watts), removable Knife Basket & Standpipe attached by stainless steel chain, stainless seated waste outlet to prevent water seeping through to waste when in use.

The Digital Temperature controller incorporated to maintain temperature between 84 Deg C min to 91 Deg C allowing for 7.0 tolerance with 3Deg C over-run.

Digital Temperature controller can be used in conjunction with most common types of Data Logging devices in which information if required can be incorporated into central SCADA logging.

Continuous Data Recording can be achieved in multiples for up to 48 Sterilizers, with a performance technical file to be stored or printed for each Sterilizer.

PT100 Stainless Steel temperature Probe designed to handle Temperature up to 350DegC.



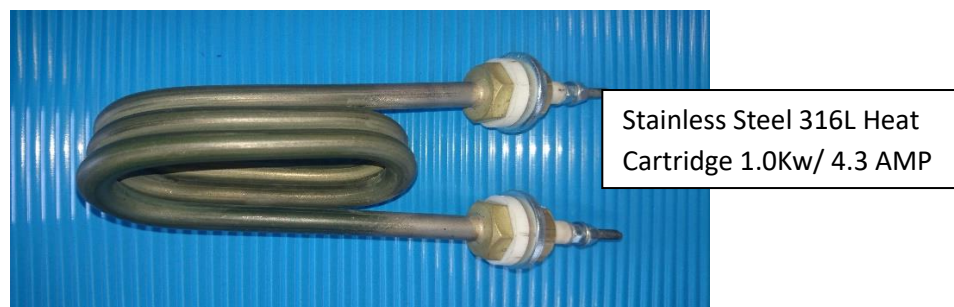
Bottom of sterilizer has an independent cover assembly with 4 ss bolts this cover is sealed so that water or sediment are prevented from getting into the base of sterilizer, where the 1.0Kw heating cartridge element is located, inside this cover there is another enclosure this houses the heating element and is easily accessible should the element need to be replaced.

All electrical connections are IP 65 glanded , cable ends ferruled prior to connection to electrical components.

Electrical consumption 100 watts per hr continuous, or (0.8kw per 8hr day).

Water consumption static 0.01 to 0.04 lp/min.

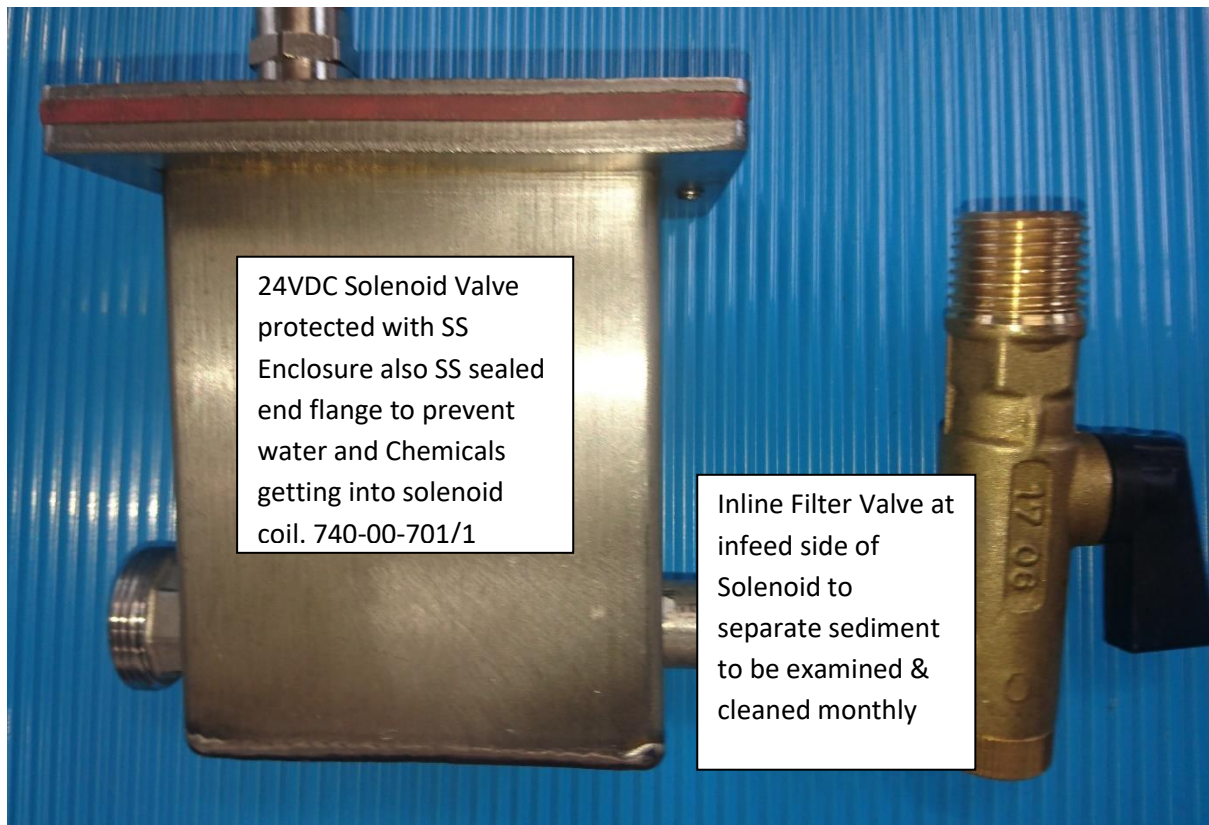
Stainless Steel Heating Cartridge 230v 1.0KW .



Solenoid Valve with inline filter.

The 24vdc water in feed solenoid valve is protected from the harsh cleaning chemicals used in the Slaughtering industry, Smisco has fitted a stainless-steel enclosure which reduces the risk of corrosion, this prolongs the life of solenoid and protects from high pressure washing.

The inline filter designed to collect any sediment and will increase life of solenoid valve, solenoid valve powered by 24vdc 10-watt power supply unit(PSU) from control enclosure, it is recommended that power to Solenoid Coil be isolated when not in production as coil can reach Temp of 104DegC over 8hrs



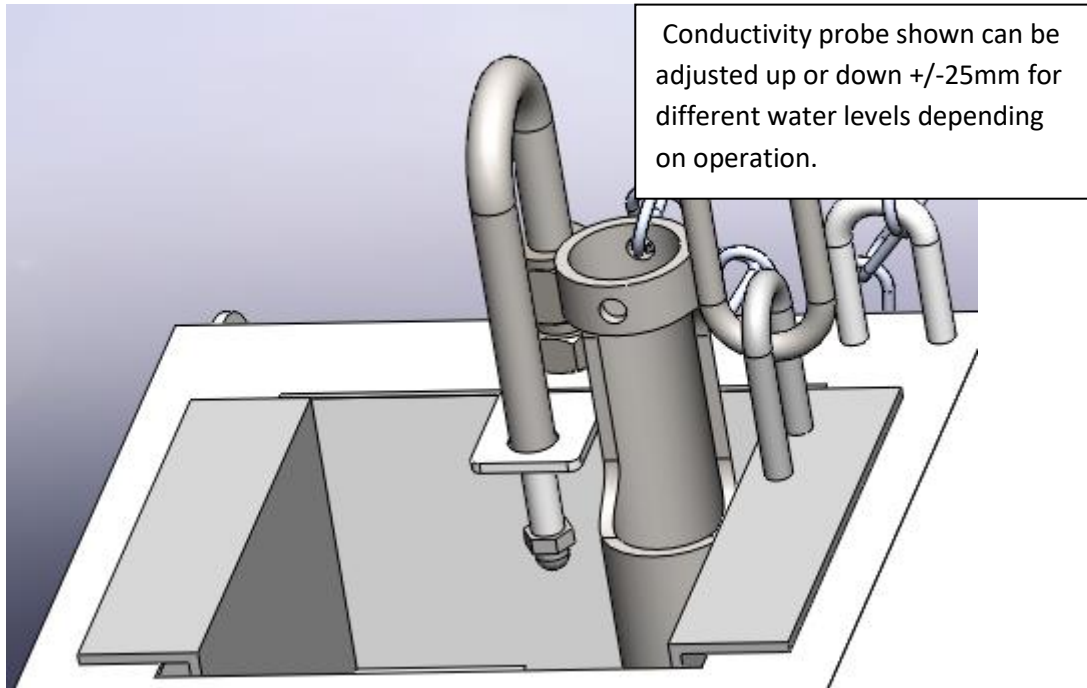
IP69 Concealed Solenoid Valve with inline water filter, components below spare parts replacement

24VDC Solenoid Coil Class F- ERA 11630-43



Replacement Kit for SV 740-00-701SPK.





The principal of the stainless steel adjustable conductivity probe is so that unless there is water in sterilizer it will not function, this protects Sterilizer from boiling dry, it is estimated that the life of heating in soft water environment will last for up to 6,000 hrs, the probe material is manufactured from 316L ss and the insulation within probe is PTFE/Teflon as it will withstand temperatures of plus 150 Deg C.

It is recommended that tip of conductivity be 5/10mm below level of overflow/ removable standpipe, sterilizer to be fitted in level position.

The Conductivity Probe to be kept clean always during operation in accordance with "EC853/2004" rule. The probe has a removable Stand pipe which is created to achieve maximum cleaning, this standpipe waste outlet is similar to household waste fitting and is tapered so that it connects manually to a brass seated fitting located in the bottom of Sterilizer, this laser cut stand pipe reduces residue building up assuming sterilizer is not kept clean.

The Knife Basket is manufactured in 2 components a laser cut holding frame which has a high temperature plastic basket to withstand Temp of 98Deg C, cut by water jet for to hold up to 4 Knives, this material is 25 mm thick and will protect knives from losing sharpness.

Replacement Polyethylene Knife Basket

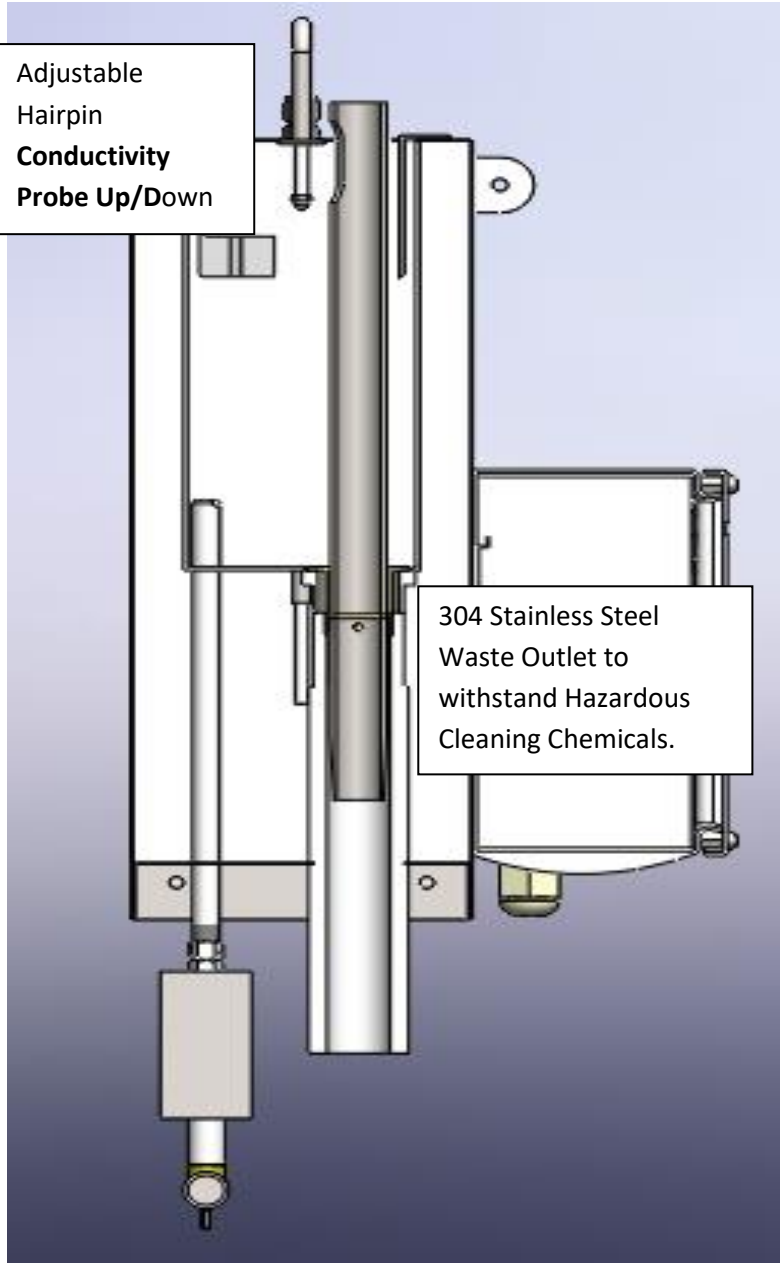


Adjustable
Hairpin
Conductivity
Probe Up/Down

304 Stainless Steel
Waste Outlet to
withstand Hazardous
Cleaning Chemicals.

Mains Supply Single Phase 230V

16/25amp Isolator 230V Rotary
Mains Isolator must be Isolated
after production to protect
Solenoid Valve from overheating.



SECTIONAL VIEW

The sectional view of Sterilizer showing assembled components, this unique design shows the function of Smisco sterilizers as they are designed for the harsh environment within the Slaughtering industry, the sterilizer is designed to comply with EU standards (EC 854/2004), sterilizer designed for sterilization of Knives and Tools that is hygienically operational and has the safe method of Sterilization.

Holding Capacity of 4KN Sterilizer is 2.5 Litres,

Installation & Maintenance

The Sterilizer is to be fitted by approved Competent fitter and Electrical supply be connected by competent electrician.

Mounting of the Sterilizer be vertical and upright attached to Wall, Platform, Conveyors, Tables Sinks etc secured by 8mm anti corrosive fasteners,(welding of items to Sterilizer is not recommended), the water in feed be ambient temperature or up to 50DegC based on pre heated water, sterilizer will function equally well with cold water ambient temperature, the connection to inline filter be ½" BSP, the waste pipe connection 1" BSP, ideally have union where connection is to take place, Smisco recommends that a non-corrosive waste outlet connected to 1" outlet have union connection and withstand 96 DegC.

The Water in-feed supply ½" BSP to be from 2.5 to 4.0 bar pressure and a flow rate of 2ltr/pm, can be approved flexible connection.

Electrical supply to sterilizer is min 2sqr, rated amperage 4.5amp, protected with external RCBO from supplied mains. 220/240v 50Hz, a 16/25amp rotary mains isolator to be located close to Sterilizer for mains power/off as shown in Sectional View.

Maintenance of Sterilizer is required, it is recommended that inline filter to solenoid be cleaned out or examined monthly, as sediment can accumulate over a period depending on water quality also condition of pipeline feed supply.

It is estimated the life of heating element be 6000hrs where soft water supply is available, in the case where hard water areas lime may build up over a period of time, we recommend a product called " Scalex", which can be used cold over a period of 24hrs, this will remove safely any build up increasing the life of heating element also lining on inner shell of sterilizer.

All electrical components operating sterilizer are guaranteed for 12 months, we recommend that fasteners be secured tight on enclosure door to eliminate risk of water getting into components, the IP68 cover is sealed with silicon adhesive seal for protection.

The Sterilizer to be cleaned daily prior to next day's production and that conductivity probe be examined and that is free from fat or blood residue, basically speaking good housekeeping practices are essential, it is recommended that Sterilizer be cleaned and degreased with approved chemicals that are not aggressive and be thoroughly rinsed after use of chlorinated chemicals to protect Brass fittings and Seals on Heating Cartridge.

"NB", never weld brackets to outer shell of Insulated Sterilizer.

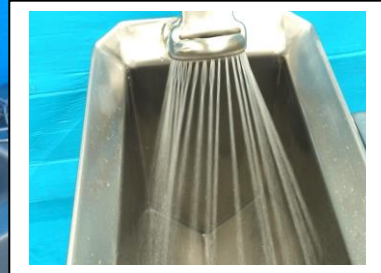
Smisco Sterilizers are Copyright of Smisco Food Equipment Ltd , 2018.

The DG 400 Combi Sensor operated Hand/ Knife Washing Facilities Incorporated.



Concealed 24VDC electro photo sensor operated through Timer, hand operated for hot water when washing hand or Knife.

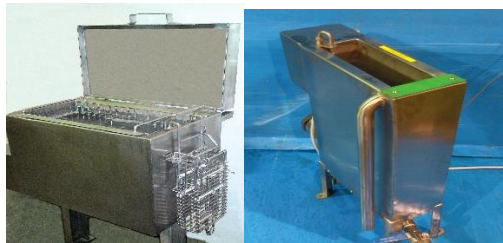
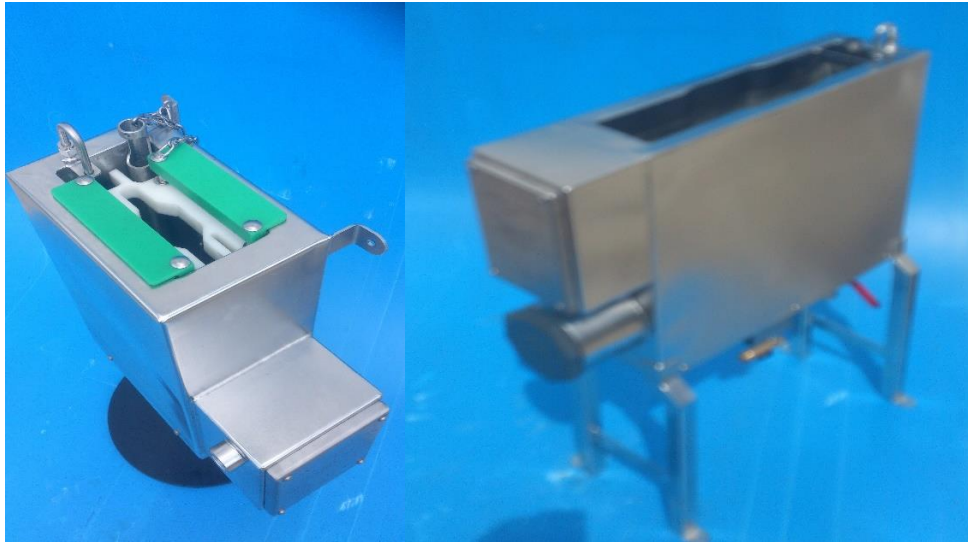
DG400 Knife/Hand Washer
sensor operated, 0.7ltr per
6 sec cycle adjustable, or
(7Lpm) .



It is recommended that Butchers Knives be pre washed prior to Sterilization, in accordance with "EC853/2004", harmonized standards, image above shows Hand /Knife sensor operated attached to Sterilizer, by swiping blade of Knife across photo sensor water will spray for 6 seconds which can be adjusted.

Sterilizers tested and calibrated from 84 DegC to 90DegC, by Digital Controller incorporating a Stainless Steel PT100 for accuracy, max 90DegC prior to despatch, all sterilizers receive Serial No for tracking purposes and service here after.





Other types of Sterilizers Manufactured for Knives & Cutting Tools.

Slaughter Hall SRM Knives.

Hoc Cutters, Jarvis /Kentmaster/Freund.

Briskett Saw Beef.

Lamb Briskett Splitter/hock cutter.

Butchers Handsaw.

Ibex Trimming Tools.

Carcass Splitting Electric/ Hot Water Spray.

Flair Saw, and Chest Sterilizers.

Weasand Rodding.

Chain Mill Sterilizer 3.0Kw.

Beef Quartering Scissors/Saws.

Pig Slaughtering & Boning Tools and Equipment Bespoke.

Overhead Inline Chain Conveyor Sterilizers for Heads, Soft Offal etc.

Reducing Carbon Foot Print the Benefits

The Legend.

In today's Environment Water and Oil are our greatest assets we need to compromise them as our population is increasing rapidly over the past 5 decades, been involved in the modern World we need to harvest skills in which we must reduce our carbon foot print.

Time and time again we are told the damage we are doing to our Planet mainly the Ozone layer, Smisco has adapted to help reducing this Carbon Foot Print.

Test carried over many years in an average Beef Abattoir slaughtering 360 Cattle per Day, or 45 Cattle Per Hr, we have created our own foot print.

Water consumption reduced from 0.37cu to 0.14cu per head, test carried out 72m3cu. (72,000.00 litres), a saving of 16,000 Gallons of Water per 8hr day.

Oil consumption reduced from 7.84 Ltr per hour to 4.54ltr per Carcass.

Throughout the Slaughtering industry, the Smisco sterilizer is the most economical on the market compared with chemical cold sterilization, steam or continuous hot water or spray type.

Smisco has put many years of R&D in confirming that there is nothing out there in the market that compares with this product, as it is designed to use minimum water and heating energy throughout the course of day.

The Sterilizer is designed to work in the harshest of conditions in Slaughtering, where the challenges come about in keeping butchering practices up to high veterinary standards, especially in Sticking/Bleeding areas, Red & Green Offal handling facilities, once Knives /Tools are pre-washed minimum energy and water consumption is required.

Smisco Sterilizers are easy to use and maintain, as we have chosen reputable CE components suppliers that can guarantee customers peace of mind.