



The Esco Formalin Vaporizer (FVP-00X) is a microprocessor-controlled unit that simplifies and automates the decontamination process for all sizes and makes of biohazard safety cabinets. This also increases safety for the decontamination operator and laboratory personnel since no manual intervention is required during the entire process.

The unit enables decontamination to be accomplished by the standard protocol as recommended in EN12469 (European standard for microbiological safety cabinets) with formalin and ammonia solutions. ANSI/NSF49 (American standard for Class II cabinets) recommends decontamination using paraformaldehyde and ammonium bicarbonate which is a similar protocol but with agents in the solid (instead of liquid phase), and as such this vapouriser can also be said to be in compliance with the ANSI/NSF49 recommended decontamination protocol.

Decontamination Cycle

- ▶ Operator starts process by pressing a button on the touch pad
- ▶ Pre-delay timer allows decontamination operator to seal up the cabinet before vaporization of ammonia commences. Delay period can be set from 1 to 59 minutes.
- ▶ Vaporization of formalin solution commences to release the formaldehyde gas to decontaminate the cabinet
- ▶ LCD display will show reminder for operator to cycle the cabinet fans to ensure even distribution of the gas
- ▶ Heater automatically cuts off when formalin solution has completely boiled off
- ▶ Contact time timer starts to regulate the period for which the formaldehyde gas is exposed to the cabinet internal surfaces for the decontamination to take effect
- ▶ Neutralisation process begins automatically to vaporize the ammonia solution to neutralise the formaldehyde gas
- ▶ LCD display will show reminder for operator to cycle the cabinet fans to ensure even distribution of the gas
- ▶ Neutralisation timer starts to regulate the period for which the neutralisation reaction takes place

General Construction Features

- ▶ Durable, heavy-duty full stainless steel construction

- ▶ Electrical and electronic components are isolated from the heating chamber to prevent exposure to chemical fumes and heat which can reduce component life
- ▶ Side mounted handles for easy carrying
- ▶ Generously-sized formalin and ammonia chambers (800mL maximum capacity in total) which allows even the largest of safety cabinets (up to 6 foot console units) to be decontaminated with the maximum agent volume recommended in EN12469
- ▶ Thermostats for the formalin and ammonia chambers to prevent overheating
- ▶ Backup thermostat to ensure the temperature of the external casing does not rise above a safe level
- ▶ Increased diameter liquid chamber inlets to allow the formalin and ammonia solutions to be poured into the chambers more easily without spillage
- ▶ Internal heat insulation to prevent cross heating of chambers and damage to the electrical and electronics components
- ▶ Manual shut-off isolating switch and safety fuse
- ▶ Universal IEC power inlet design (appropriate cordset must be specified on order depending on country of use)

Control System Features

- ▶ The first and only microprocessor controlled vaporizer unit in the world specifically designed for safety cabinet decontamination

- ▶ Automatic control of the entire decontamination cycle .
- ▶ No manual intervention required for the entire process
- ▶ In case of power failure, the vaporizer will recover automatically once the power resumes without any intervention
- ▶ Microprocessor unit has a built-in watchdog and will self-reset in case of any processor failure
- ▶ Pre-delay, contact time, neutralisation timers are adjustable using the touch control pad on the front of the unit
- ▶ Large, backlit, LCD display
- ▶ Audible and visual alarms for in case of overheating during a cycle
- ▶ Password control to prevent decontamination timers from being adjusted by unauthorised personnel
- ▶ Easy to clean touch control panel without any switches or manual relays to corrode

Ordering

- ▶ Escos Formalin Vaporizer is available with the following electrical configurations. Please ensure that the ordering code corresponds to your electrical configuration requirements when ordering.

Power Supply Options	Ordering Codes
220-240VAC, 50HZ / 60HZ, 1 phase	FV-001
100-130VAC, 50HZ / 60HZ, 1 phase	FV-002

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ESCO® Escos Biotechnology Equipment Division

Escos Biotech is a highly focused manufacturer of laminar flow, biohazard safety and other HEPA-filtered cabinets for the laboratory with a history of quality cabinets since 1978. We are predominantly oriented towards the international marketplace, with sales in more than 60 countries and 90% of turnover exported. Our products have been independently tested to standards such as AS1807.5 and EN12469. Products are manufactured under an ISO 9001 registered quality system.



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