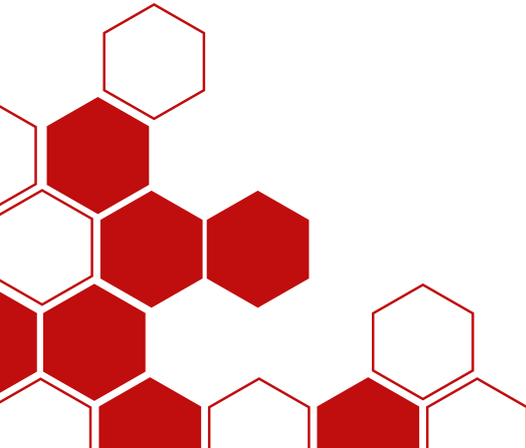


 **FEDEGARI**

SMART ***EXCELLENCE*** LAB SOLUTIONS

BE.Essential

FVG

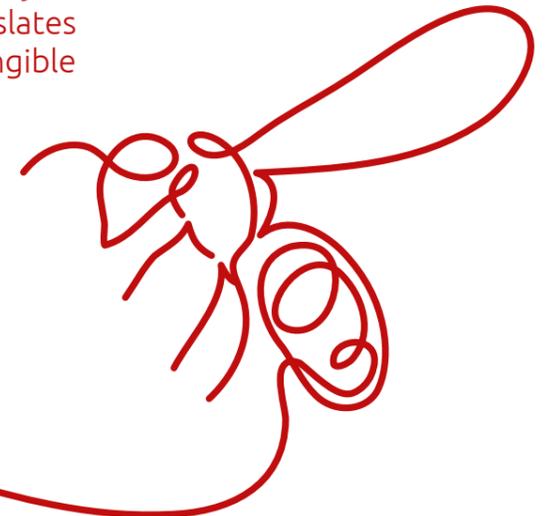


SMART **EXCELLENCE**

EXCELLENCE. It is the legacy of Fedegari - engineering mastery and unwavering reliability.

SMART. It is the present and future of LAB - accessible, immediate, and designed to empower both customers and dealers.

KNOWLEDGE is both the foundation and the goal: just as Fedegari's know-how gave life to LAB, LAB translates precision, reliability, and ingenuity into tangible solutions.



WHY:

Everything we do is driven by the belief that scientific research and technological innovation can improve people's lives.

HOW:

We achieve this by empowering our partners with deep expertise, cutting-edge technologies, and high-value solutions.

WHAT:

We make collaboration effortless - we stay close to the market, offer configurable solutions, and provide expert training as true masters of sterilization.

COMPACT AND ERGONOMIC

Vertical saturated steam autoclaves designed for **versatile applications**. Featuring an in built AISI 316L stainless steel generator, self-priming pump, and **integrated air compressor**.

The horizontal sliding lid with pneumatic sealing ensures **quick and safe closure**, while pressure and temperature sensors enable **precise process**.

In microbiology labs and QC, analysis and research departments, sterilization **must**:

- ⊗ Ensure effective microbial inactivation.
- ⊗ Preserve the integrity of samples and containers.

Users need an easy, flexible, safe, and compliant autoclave that can handle different loads.





FVG SIZE

- ◇ 50 L – 1.77 ft³
- ◇ 75 L – 2.65 ft³
- ◇ 140 L – 4.94 ft³

(for additional information refers to dimensions section at pag.13)

PROCESS CONTROLLER

- ◇ TCS09

PRESSURE VESSEL CERTIFICATION

- ◇ PED

Robust daily performance capable of running multiple cycles per day.

Designed for operator safety with a horizontal opening lid that enhances ease of use and protection.

Easy maintenance to guarantee long-term efficiency and consistent performance.

Electric steam generator with instantaneous injection of high-quality saturated steam.

14 free and easy configurable programs.

CYCLE AFTER CYCLE CONFIDENCE DELIVERED

SOLID POROUS CYCLE

When it comes to sterilizing solid materials such as glassware, machine parts, precision and consistency are essential. **This cycle leverages a membrane type vacuum pump and a sterile air filter** capable of reaching a vacuum level maximum of 200 MBAR, in line with EN285 requirements, performing two critical actions:

- Efficiently removes air from the load, ensuring proper steam penetration.
- Thoroughly dries the materials at the end of the cycle.

This makes it ideal for preparing labware that must be immediately clean, dry, and ready for sterile operations.

OPEN LIQUIDS CYCLE

Sterilizing liquids in open and small capacity containers demands special care to avoid spillage and ensure **uniform heat penetration**. This cycle leverages a combination of:

- Enhanced internal electrical air compressor.
- Air introduced in the chamber is treated through a sterilizing filter.
- Air ballasting performance to replace the steam present in the chamber at the end of sterilization with air during the load cooling phase.

Together, these elements avoid overboiling of the fluids present in the containers.



SPECIAL CYCLES

GRAVITY CYCLE

Machine can work by itself without any cycle to be activated. Steam just flows in the chamber, air present in the chamber automatically goes down and sterilization takes place.

CYCLE REPETITION (used also for stress test)

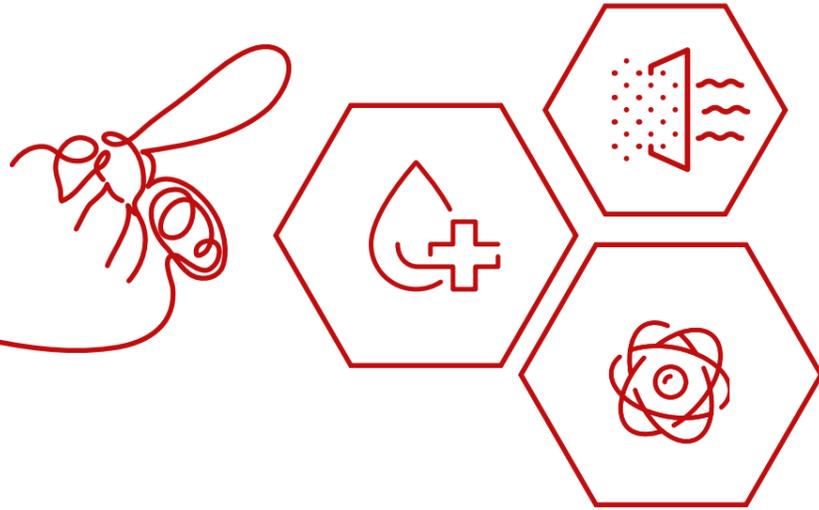
For testing or unattended operation, this function enables **automatic repetition** of the last selected program:

- Repeats the previous cycle without operator input.
- Ensures consistency and reliability in repeated processes.

WARM UP – WARM KEEPING PROGRAM

Designed for applications requiring **stable thermal conditions**, such as culture media preparation:

- Maintains a set temperature between 40°C and 105°C (104°F–221°F).
- Ensures thermal stability over a defined period.
- Supports precise preparation of loads that must be warm before use.



TEST & COMPLIANCE

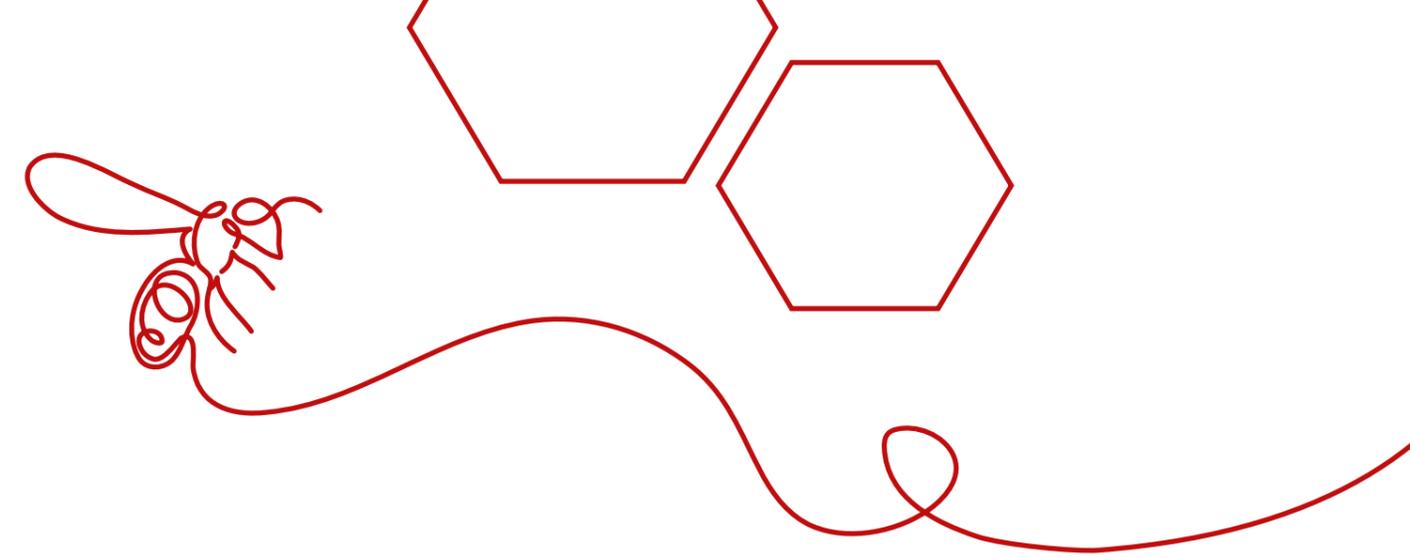
Ensuring process integrity and regulatory compliance are essential for any QC or microbiology lab. Fedegari provides a comprehensive set of testing and validation tools to meet the most stringent standards:

Vacuum Test

This test checks the **chamber's tightness** under vacuum conditions to ensure there are no leaks, fully conforming to EN285 standards.

Bowie-Dick Test

Designed specifically for porous loads, this test verifies **efficient air removal and proper steam penetration**, as required by EN285.



UTILITIES

Water tank for steam generator feeding in case of absence of a dedicated water line/tank

It is required where there are no dedicated water line at customer's site.

Drain cooler 70°C /158°F

It is used when tubes don't tolerate high temperatures. To cool the discharged fluids to lower temperatures, an optional compact air condenser can be installed, ensuring a final temperature below 70°C/158°F.

ADDITIONAL HARDWARE AND SOFTWARE OPTIONS

PC connection RS232

Remote data archiving on a PC through RS232 serial port which allows to **archive and print** cycles and cycle charts.

Validation port adapter

It is a port adapter, needed when the insertion of **additional temperature probes / pressure transducer in the chamber** is required.

Thermal printer on board

It is a thermal paper printer **directly connected to the autoclave control panel**, whose primary function is to document, in **real time** and at a **programmable** rate, the execution of the sterilization program in progress.

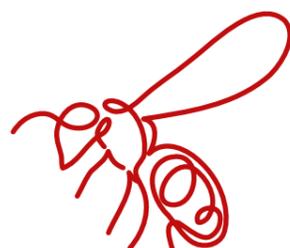
Electric lifting device

It is a semiautomatic device that **facilitates loading and unloading** of the baskets from machine.

ACCESSORIES

304 stainless steel wire basket

Silicone basket



DOCUMENTATION

Certificate of origin

Chamber Of Commerce stamped invoice

Document hard-copy, instead of PDF

Document PDF copy



FVG DIMENSIONS, VOLUME AND POWER

MODEL	FVG1	FVG2	FVG3
CHAMBER DIMENSIONS (mm)	Ø 405 x 400 H	Ø 405 x 600 H	Ø 505 x 700 H
CHAMBER DIMENSIONS (in)	Ø 15.94 x 15.75 H	Ø 15.94 x 23.62 H	Ø 19.88 x 27.56 H
TOTAL EXT. DIMENSIONS (mm)	644Wx653Dx1009H	644Wx653Dx1009H	724Wx743Dx1131H
TOTAL EXT. DIMENSIONS (in)	25.35Wx2571Dx39.72H	25.35Wx2571Dx39.72H	28.50Wx2925Dx44.53H
USEFUL CHAMBER VOLUME (L)	50	75	140
USEFUL CHAMBER VOLUME (ft ³)	1.77	2.65	4.94
POWER REQUIRED	4,5 KW	6,5 KW	7,5 KW

UTILITIES REQUIREMENTS

UTILITIES REQUIREMENTS	WATER RECOVERY	PURIFIED WATER INLET
Type of fluids	Purified water (subject to deionization or osmosis)	Purified water (subject to deionization or osmosis) Conductivity: 5 ÷ 30 µS/cm (suggested 15 µS/cm) at 25°C/77°F TOC < 500 ppb pH: 6.0 ÷ 7.5 Chloride max 30 ppm
Pressure	1 ÷ 4 bar 14.5 ÷ 58.02 psi	1 ÷ 4 bar 14.5 ÷ 58.02 psi

POWER

230V/50Hz +PE
(only for FVG1 and FVG2)
(mono-phase + earth)

230V/60Hz +PE
(only for FVG1 and FVG2)
(mono-phase + earth)

230V/50Hz +PE
(three-phase + earth)

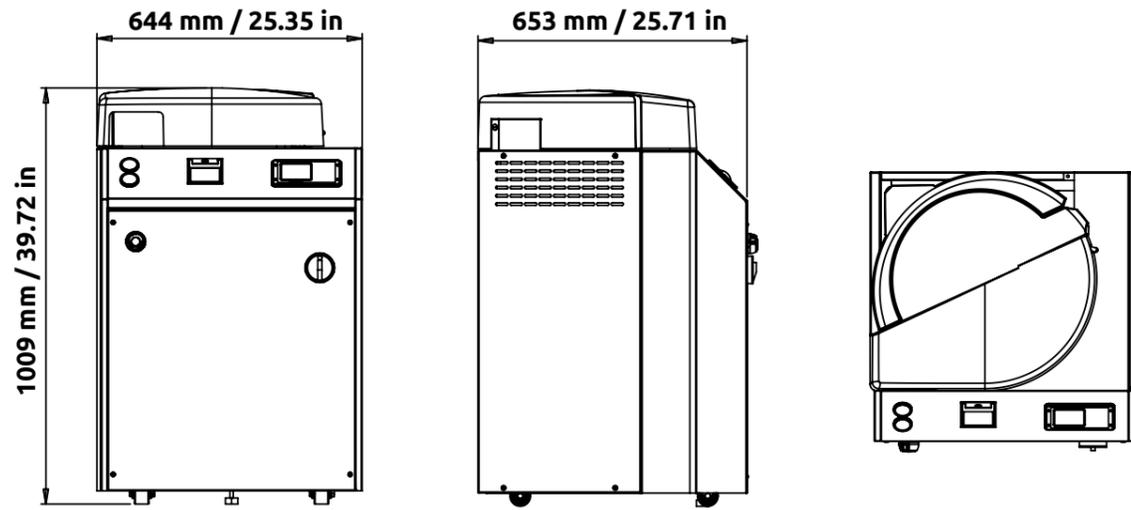
230V/60Hz +PE
(three-phase + earth)

400V/50Hz +N +PE
(Standard) (three-phase + neutral + earth)

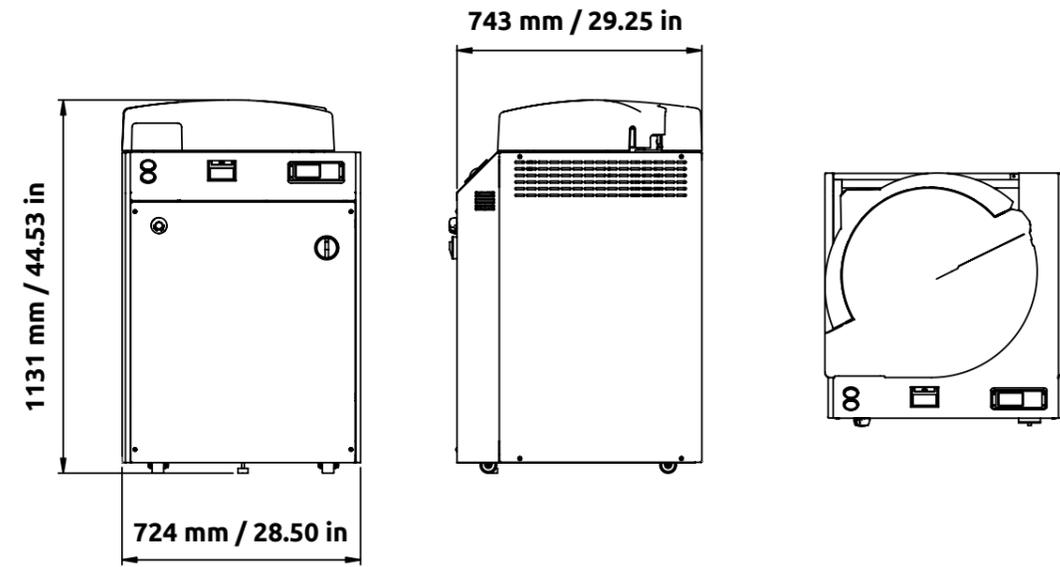
400V/60Hz +N +PE
(three-phase + neutral + earth)

TECHNICAL DRAWINGS

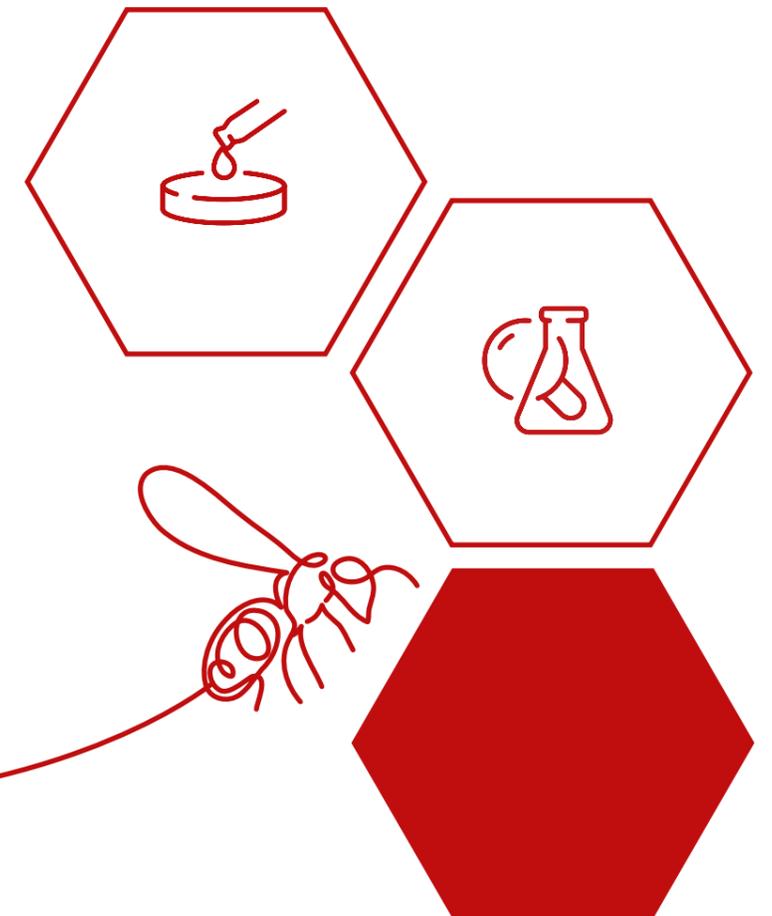
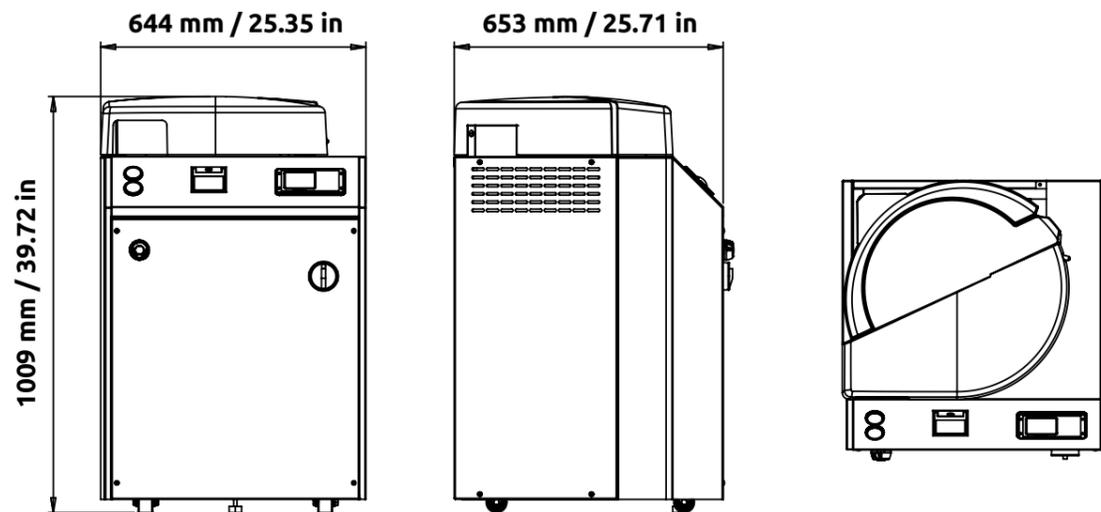
FVG1



FVG3



FVG2





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