FVS SERIES

Vertical Laboratory Autoclaves

Simplest solution for routine laboratory sterilization

FVS

FEDEGARI
AUTOKLAVEN

The FVS is compact, portable, vertical Laboratory Autoclave, with very small overall dimensions for easy handling and use.

The FVS controls its sterilization process adopting a close loop feedback system using **PID** algorithm. This solution, in a so small autoclave, permits a continuous and accurate control of chamber temperature and pressure with a significant energy saving.

The Fedegari FVS series are suitable for standard sterilization in the laboratory field for:

**Empty glassware,
laboratory instruments,
small machine parts,
culture media/solution in small size
open containers,
laboratory hard goods,
other solid items.**

Design / Construction features

- **Sterilizing chamber and lid made of top-quality AISI 316 L st. steel elettropolished finishing**
- **AISI 304 stainless steel housing frame with removable fine satinated panels for easy maintenance and operation**
- **Special profile high-resistant pneumatic gasket for automatic lid sealing, maximum safety**
- **Swing-top opening lid with quick closing and safety interlocks**
- **Small air compressor with buffer for pneumatic lid gasket, air ballast and final drying**
- **Built-in AISI 304 st. steel recovery tank for steam condensates**
- **Temperature range 100° to 144° C to cover wide range of sterilization programs**
- **Microprocessor control system with graphic colour LCD display**

- **Portable type autoclave with 2 castors and hand wheel**
- **No utilities connections for very fast and easy installation**
- **Password protected key user access**
- **Sterilization time up to 999 min.**
- **10 free-configurable automatic programs**
- **Over heating phase for accelerated heating of liquids (time saving up to 20%)**
- **One port for validation purpose**
- **Warm-up / warm-keeping for culture media (45 – 90°C) preparation**

TCS 09 Microprocessor

**Fully automated control
with graphic LCD color display.
Program progress phase graph
and parameter visualization,
including synoptic display
with auxiliary messages.
Five base different languages selectable.**

**Color LCD
Large Panel Display**

**Batch
Process Printing**

**Manual Pressure
Relief Valve**

**Front Mounted
Condensate St. Steel Tank**

**St. Steel
Removable Paneling**

FVS

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Optional kits and accessories

- **Fan assisted Air cooling**
- **Final drying kit**
- **Built-in Process printer**
- **Validation port adaptor kit**
- **St. steel wire baskets and drums with different size / type**
- **IQ/OQ Documentation package**

Loading capacity

ERLENMEYER FLASK (ml)

Model	250	500	1000	2000	3000	5000
FVS-35	2x8	2x4	3	1	1	1
FVS-50	3x8	3x4	2x3	2x1	1	1

SCHOTT-DURAN BOTTLES (ml)

Model	250	500	1000	2000	3000	5000
FVS-35	2x12	2x8	5	3	1	1
FVS-50	3x12	3x8	2x5	2x3	2	1

Technical specification

Model	FVS/35	FVS/50
Chamber volume (liters)	35	50
Useful loading capacity (liters)	30	45
Chamber / lid material	316 L st. steel elettropolished	
Chamber dimensions: (Ø x h) mm	305 x 410	305 x 610
Empty weight (kg)	80	85
Loading height (mm)	823	
Sterilization temperature range	100°C – 144°C	
Chamber Design pressure	Full vacuum / 3,5 Bar G	
Max. operating pressure	2,6 barg (ABS 3,6 bar)	
Max. operating / design temperature	144°C /152°C	
Overall dimensions (w x d x h) mm	400 x 630 x 922	
Power requirement	2 KW	2,5 KW
Standard electric supply	230 V, single phase 50/60Hz – 9,5A	230 V, single phase 50Hz – 12A
Standards / Notified body	PED 97/23/EC / CE MARK / TÜV certification	

FEDEGARI® (SUISSE) SA

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FEDEGARI (SUISSE) SA PART OF GROUP FEDEGARI AUTOCLAVI SPA

The Quality System of Fedegari (Suisse) SA has been certified in compliance with the standards ISO 9001 and ISO 13485.
It's also approved according to the Annex II of the Medical Device Directive and the Module H of the Pressure Equipment Directive.

CE

COMPLIANCE TO DIRECTIVES AND STANDARDS
FVS series are designed and manufactured in compliance with the requirements of the following European Directives and applicable standards:

A. the requirements of the following European Directives:
- Directive 2006/42/EC, Safety of machinery
- Directive 2004/108/EC, Electromagnetic compatibility
- Directive 2006/95/EC, Low-voltage devices
- Directive 97/23/CE, Pressure Equipment.

B. the following European standards:
- EN12100-1 Safety of machinery. Basic concepts, general principles for design part 1:Basic terminology, methodology.
- EN12100-2 Safety of machinery Basic concepts, general principles for design.
- EN 55011 Industrial, scientific and medical (ISM) radio-frequency equipment.
- EN 61000-4-2 Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques. Section 2: Electrostatic discharge immunity test.
- EN 61000-4-4 Electromagnetic compatibility (EMC) Part 4: Testing and measurement techniques. Section 4: Electrical fast transient/burst immunity test.
- EN 61010-1 Safety requirement for electrical equipment for measurement, control and laboratory use. Part 1: General requirement.
- EN 61010-2-040 - Safety requirement for electrical equipment for measurement, control and laboratory use.
Part 2-040: Particular requirements for sterilizers and washer-disinfectors used to treat medical materials.
- EN 13445 Unfired pressure vessels;