LOW TEMPERATURE VAPORIZED H2O2 STERILIZERS

Professional technical datasheet for PS110 and PS160 platform configurations

Application	Low-temperature sterilization of heat- and moisture-sensitive medical devices
Technology	Hydrogen peroxide vaporization with RF-excited plasma under deep vacuum
Configurations	PS110 / PS160, single-door and double-door pass-through



Prepared from the supplied presentation and datasheet sources

Designed to combine validated low-temperature sterilization performance, user safety, and compact hospital-friendly installation.

ENGINEERING SUMMARY

1. System Overview

These sterilizers are intended for medical instruments and equipment that are sensitive to heat and moisture. The process vaporizes hydrogen peroxide under deep vacuum and generates RF-excited plasma inside the chamber. During sterilization, H2O2 is converted into highly reactive species that inactivate microorganisms; after the cycle, the sterilant decomposes into water vapor and oxygen.

Key Operating Features

- Operating temperature: 40-55 C
- Cycle programs: 55 / 70 / 85 min
- Power supply: 380 V, 50/60 Hz, 3 phase
- Infrastructure need limited to electrical connection
- Low cycle cost and reduced maintenance / consumables burden

Loading, Packaging and Safety

- Two racks with minimum 2 baskets and maximum 4 baskets
- Total rack load capacity: 10-12 kg
- Tyvek roll bags indicated as packaging basis in source files
- RFID-equipped bottle / cartridge to help prevent reuse or incorrect refilling
- Visual and audible alarms, overload warning, humidity warning and cellulose-load warning



Representative clinical environment

Application Scope

• Suitable for lumen instruments, endoscopes, optical equipment, rigid optics, laser probes, micro-surgical kits and ophthalmology instruments.

• Single-door and double-door pass-through door configurations are available.

Material Compatibility

• Compatible: Stainless steel, aluminum, PMMA, polycarbonate (PC), PVC, polypropylene (PP), silicone, nylon, latex and EVA.

• Not recommended: Cotton materials, fabric / textile, cellulose products, wood, foam, sponge, linen and liquids.

2. Common Technical Specification

Parameter	Specification
Sterilization cell	Rectangular AISI 316L stainless steel chamber
Outer panel	AISI 304L stainless steel outer body with mobile design, wheels and brake mechanism
Door design	Single-door and double-door model configurations with automatic sliding system
Plasma type	Radio-frequency-excited plasma
Air intake	Medical-grade HEPA filter
Catalytic converter	Provided
Chamber temperature	Programmable range between 40 C and 55 C with measurement and recording capability
H2O2 concentrator	Concentrates sterilant to above 82 wt% to increase efficiency
Reservoir concentration	Hydrogen peroxide concentration in reservoir at least 58%
Control interface	7 in and 10 in LCD touchscreen configurations, thermal printer, USB and Ethernet
Data and records	More than 4 years of stored cycle history; exportable via USB as Excel according to source presentation
Alarm architecture	Visual and audible alarms; overload, humidity and cellulose-load warnings; self-diagnostic support
Utilities	Electrical connection: 380 V, 50/60 Hz, 3 phase, 1N, 1G

3. Sterilization Programs

Program	Duration	Primary Scope	Typical Items
Short	55 min	Lumen-free instruments and reusable devices	Endoscopes, rigid optics, laser probes, micro-surgical kits, ophthalmology kits
Standard	70 min	Lumen-free instruments plus flexible Teflon lumen and stainless steel lumen	Reusable devices, optics, probes and kits
Intensive	85 min	Narrow channels and long lumens	Reusable devices, flexible Teflon lumen, stainless steel lumen

4. Model Selection and Dimensional Matrix

Parameter	PS110 Single	PS110 Double	PS160 Single	PS160 Double
Nominal volume (L)	110	110	160	160
Chamber width (mm)	430	430	492	492
Chamber depth (mm)	739	745	739	745
Chamber height (mm)	440	440	532	532
Internal width (mm)	400	400	460	460
Internal height (mm)	405	405	500	500
Internal depth (mm)	710	710	710	710
External width (mm)	680	680	680	680
External depth (mm)	864	864	864	864
External height (mm)	1910	1910	1910	1910
Weight (kg)	385	415	395	430
Geometric volume (L)	115.0	115.0	163.3	163.3

Note: Values above were consolidated directly from the supplied model matrix source. Final selection should be confirmed against the approved manufacturing configuration.

5. Cartridge, Documentation and Compliance

Sterilant Bottle / Cartridge Data

- Maximum 30 cycles per bottle
- Installed bottle shelf life: 30 days
- Unopened bottle shelf life: 12 months

Quality, Validation and Documentation

- EN ISO 13485
- EN ISO 9001
- ISO 14937 validated sterilization cycles
- CE-related statements shown in the source files: EMC EN 60601-1-2, LVD IEC 61010-2-040, LVD IEC 61010-1

6. Manufacturer Contact

Company	Kesin Medikal
Address / Contact	Ivedik OSB Mah. Guleryuz San. Sitesi 1345. Sokak No.63 Yenimahalle Ankara / TURKEY | +90 312 395 67 17 | www.kesinmedikal.com | info@kesinmedikal.com

This document is a professionally reformatted technical datasheet prepared from the user-supplied source files. Any project-specific offer, tender submission, or manufacturing release should be finalized against the approved commercial offer and signed technical specification.