Pulse Vacuum Steam Sterilizer - Horizontal Hospital Autoclave - 150L to 1500L - PLC Touch Screen

Model **MSSTH-NS150DMSWISS, MSSTH-NS200DMSWISS, MSSTH-NS250DMSWISS, MSSTH-NS360DMSWISS, MSSTH-NS600DMSWISS, MSSTH-NS800DMSWISS, MSSTH-NS1000DMSWISS, MSSTH-NS1200DMSWISS, MSSTH-NS1500DMSWISS** | Brand **Master Science**





The Master Science Pulse Vacuum Steam Sterilizer is a large horizontal autoclave for hospital central supply departments, operating theatres, pharmaceutical plants and research facilities. It uses saturated steam, whose latent heat is released on condensation, to penetrate and sterilize textiles, surgical instruments, culture media and glassware, followed by vacuum drying.

KEY HIGHLIGHTS

- Deep steam penetration
- Dual cycle assurance
- Clean/dirty separation
- Controlled access

AT A GLANCE

150°C DESIGN TEMPERATURE	**≤ ±2.0°C** TEMPERATURE UNIFORMITY
115 to 138°C WORKING TEMPERATURE	

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Contact us for pricing, configuration options and delivery details.

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Overview

A PLC with a touch-screen HMI runs every cycle automatically, records temperature data and monitors sterilization by both F0 value and temperature-time. With chambers from 150 L to 1500 L and a choice of single or double doors, the Master Science Pulse Vacuum Steam Sterilizer can be matched to anything from a clinic to a full CSSD.

High-volume sterilization departments face strict demands on capacity, documentation and safety. The Master Science Pulse Vacuum Steam Sterilizer helps with:

Key Benefits

Deep steam penetration
Adjustable pulse vacuum removes air from packs, textiles and instruments before sterilization.

Dual cycle assurance
F0 value and temperature-time monitoring together confirm each sterilization cycle.

Clean/dirty separation
Optional double doors with interlock support separate loading and unloading areas.

Controlled access
Three-level authority management limits who can change programmes.

For smaller jacketed units, see the horizontal jacketed autoclave 150L to 400L.

Technical Specifications

GENERAL

General	Main technical parameters of the Master Science Pulse Vacuum Steam Sterilizer:
Brand	Master Science
Model Number	MSSTH-NS150DMSWISS, MSSTH-NS150SMSWISS, MSSTH-NS200DMSWISS, MSSTH-NS200SMSWISS, MSSTH-NS250DMSWISS, MSSTH-NS250SMSWISS, MSSTH-NS360DMSWISS, MSSTH-NS360SMSWISS, MSSTH-NS600DMSWISS, MSSTH-NS600SMSWISS, MSSTH-NS800DMSWISS, MSSTH-NS800SMSWISS, MSSTH-NS1000DMSWISS, MSSTH-NS1000SMSWISS, MSSTH-NS1200DMSWISS, MSSTH-NS1200SMSWISS, MSSTH-NS1500DMSWISS, MSSTH-NS1500SMSWISS
SKU	MSSTH-NS150DMSWISS, MSSTH-NS150SMSWISS, MSSTH-NS200DMSWISS, MSSTH-NS200SMSWISS, MSSTH-NS250DMSWISS, MSSTH-NS250SMSWISS, MSSTH-NS360DMSWISS, MSSTH-NS360SMSWISS, MSSTH-NS600DMSWISS, MSSTH-NS600SMSWISS, MSSTH-NS800DMSWISS, MSSTH-NS800SMSWISS, MSSTH-NS1000DMSWISS, MSSTH-NS1000SMSWISS, MSSTH-NS1200DMSWISS, MSSTH-NS1200SMSWISS, MSSTH-NS1500DMSWISS, MSSTH-NS1500SMSWISS
Brand	Master Science
Models	MSSTH-NS[capacity]DMSWISS (single door) and MSSTH-NS[capacity]SMSWISS (double door), capacities 150, 200, 250, 360, 600, 800, 1000, 1200 and 1500 L
SKU	MSSTH-NS150DMSWISS, MSSTH-NS150SMSWISS, MSSTH-NS200DMSWISS, MSSTH-NS200SMSWISS, MSSTH-NS250DMSWISS, MSSTH-NS250SMSWISS, MSSTH-NS360DMSWISS, MSSTH-NS360SMSWISS, MSSTH-NS600DMSWISS, MSSTH-NS600SMSWISS, MSSTH-NS800DMSWISS, MSSTH-NS800SMSWISS, MSSTH-NS1000DMSWISS, MSSTH-NS1000SMSWISS, MSSTH-NS1200DMSWISS, MSSTH-NS1200SMSWISS, MSSTH-NS1500DMSWISS, MSSTH-NS1500SMSWISS
Design Pressure	-0.1 to 0.3 MPa
Design Temperature	150°C
Working Pressure	0.23 MPa
Working Temperature	115 to 138°C
Vacuum Level	-0.086 MPa
Temperature Uniformity	≤ ±2.0°C
Pulsing Cycles	0 to 9 (adjustable)
Water Source Pressure	0.1 to 0.2 MPa
Compressed Air Pressure	0.4 to 0.7 MPa
External Steam Pressure	0.3 to 0.6 MPa
Steam Generator	Built-in on 150-600 L models; external steam source required above 600 L
Power Supply	3-phase 5-wire, AC 380 V, 50 Hz

DIMENSIONS & WEIGHT

Chamber Dimensions (L × W × H)	150 L: 700 × 450 × 480 mm; 200 L: 925 × 450 × 480 mm; 250 L: 780 × 600 × 600 mm; 360 L: 1000 × 600 × 600 mm; 600 L: 1190 × 610 × 910 mm; 800 L: 1450 × 610 × 910 mm; 1000 L: 1250 × 680 × 1180 mm; 1200 L: 1450 × 680 × 1180 mm; 1500 L: 1850 × 680 × 1180 mm

PROBLEMS THE MASTER SCIENCE PULSE VACUUM STEAM STERILIZER SOLVES

Air pockets in dense loads	Repeated vacuum pulses ensure steam reaches every part of the load.
Wet textiles	Vacuum drying leaves packs dry after the cycle.
Incomplete records	Automatic temperature recording and F0 monitoring keep a full cycle history.
Cross-contamination between areas	A double-door layout separates contaminated and sterile sides.

The Master Science Pulse Vacuum Steam Sterilizer is used in

- **Hospital central sterile supply departments (CSSD)**
- **Operating room sterilization**
- **Pharmaceutical factories**
- **Research institutions and laboratories**
- Sterilization of textiles, instruments, culture media and glassware

Structure

- Horizontal rectangular double-layer chamber for safety, heat retention and drying
- Gear-engagement door with motorized locking
- Pneumatic door seal
- Single door or interlocked double door options

Piping and Validation

- High-quality stainless steel tubes
- Clamp-type quick-release fittings
- Standard equipment validation interfaces

Control System

- PLC with HMI touch screen
- F0 value and temperature-time monitoring
- Automatic temperature recording and complete cycle records
- Three-level authority management

Programmes

- Fabric
- Instruments
- Liquid
- BD test
- Pressure hold test
- Multiple custom programmes

Standard Accessories Included

- Sterilizer main unit
- Sterilization racks (models below 600 L)
- Sterilization carts and transfer trolleys (600 L and above)
- Built-in steam generator (150-600 L models)

Optional Accessories

- Double-door configuration with interlock