



# STERIVAPH

... new line steam sterilizers



**NEW**



## Original without compromises



protecting human health

## Tradition, quality, innovation

Long-term experiences of BMT Medical Technology s.r.o., advanced patented solutions and the latest technology become the quality mark and standard in sterilisation technique.

Steam sterilizers line STERIVAP HP with chamber volume of 148 – 1490 litres (1 – 18 STM) finds application in medical material processing in sterilization worksites of various health care facilities.

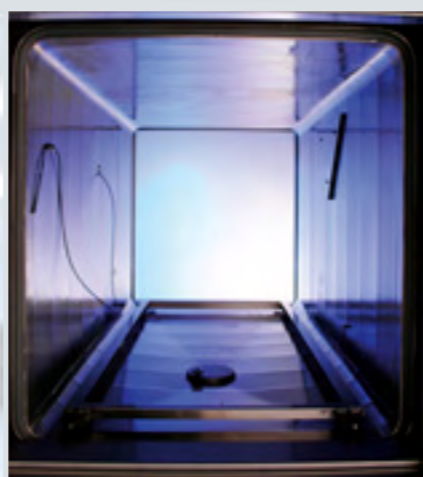
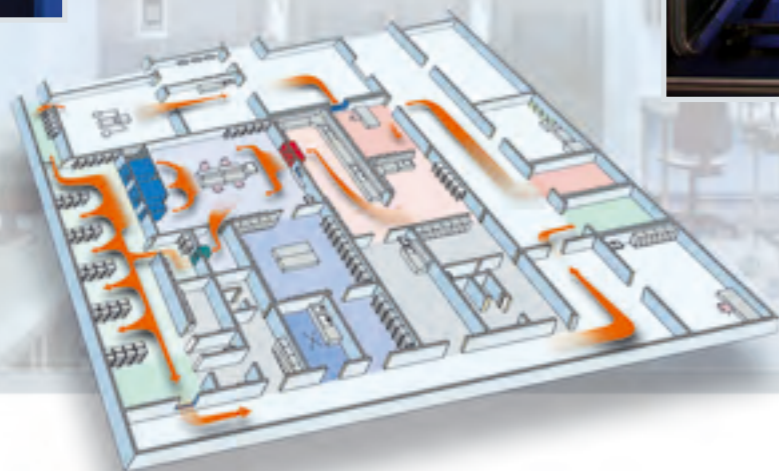
## Offer of services

Besides of traditional supplies of instrumentation we offer further range of services, related to building of central sterilizations and sterilizations by the surgeries.

- consultancy and project elaboration including logistics and capacity calculation
- providing of substitute sterilisation by lending of instruments or mobile sterilization in container
- turn key supply of instrumentation including unified information system

## More than you can see at first sight

- the all stainless steel instrument jacket
- divided all stainless steel instrument frame with attractive dimensions and width only 100 cm
- the massive chamber, door and the heating jacket are made of high-quality stainless steel AISI 316 L with polished surface with surface roughness of Ra 1,25 µm-(50 µinch)
- the outer insulating jacket of the sterilising chamber is made of dip galvanised sheet (optionally of aluminium or stainless steel AISI 304) with high-quality insulation, which reduces substantially the heat losses
- innovative, colour, large-scale, ergonomically adjustable touch-screen 12"
- double-processor control by two independent systems (Master and Slave) for highest safety
- cycle control by dual independent sensors of absolute pressure and temperature, ensuring operating accuracy, control and independent cycle documentation
- integrated drain – due to dampness elimination in the instrument all pipes are led to one common sump



## Meeting the latest standards

The machines are manufactured in certified quality system according to European Directive for manufacturing of medical devices No. 93/42/EEC, pressure chamber and steam generator are designed according to European Directive No. 97/23/EC or in case of individual requirement according to standards ASME Code, Section VIII, Division 1 (for USA and Canada) or according to licence rules AQCIQ (for China). The instruments fulfil requirements of many technical standards as e.g. EN 285, and they are may be validated according to the EN ISO 17 665-1.

- validation if sterilization instruments by accredited testing laboratory
- consultancy in implementation of quality system ISO 9001:2000 on the sterilization sites

- integrated device for supply water saving for suction pump, which saves approx. 80 % of operating costs
- unique divided double chamber jacket with new system of steam filling to the sterilising chamber, which reduces the demi-water consumption by approx. 20 %
- thermo-degassing of demi-water for the steam generator with minimising of content of the incondensable gasses for higher sterilizing reliability
- high- performance, noiseless, two-stage suction pump for higher efficiency and reliability (except of STERIVAP HP 6612 and higher)

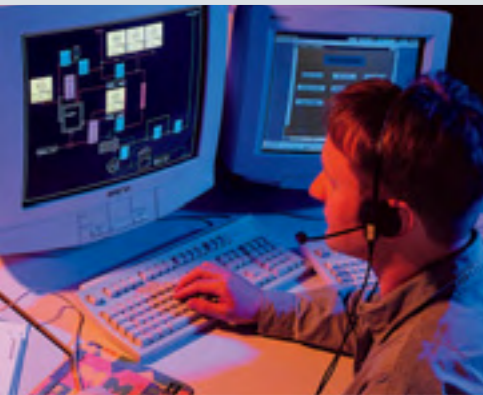
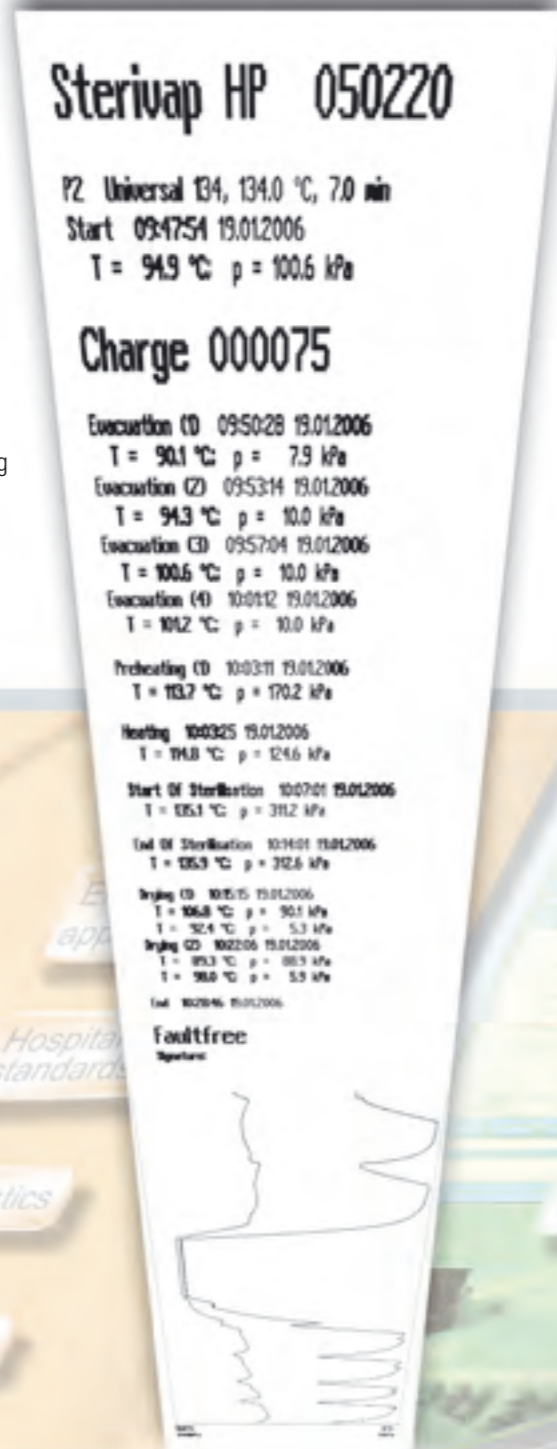
- unique solution of steam distribution for heating and sterilising process – enables accurate meeting of physical requirements standards
- simple mechanical filter on steam and supply water inlet
- the integrated steam generator is equipped as a standard by automatic clarifying device and is made as well as the heating elements of stainless steel AISI 316 Ti, optionally AISI 316 L

- motor driven door of sterilizing chamber with unique spring-loaded mechanism reduces the instrument weight approx. by 50 – 100 kg
- piping distributions and fittings leading steam to the chamber are as a standard made of stainless steel



## Modular system and optional accessories

- single and double door type  
(type 446 – 6612 vertically and type 9612 – 9618 horizontally sliding door)
- optional steam source  
FD – steam of central source  
ED – own integrated steam generator  
FDT – combined supply  
of technical/medicinal steam  
FDD – integrated heat exchanger
- possibility of built-in device for cooling of condensate
- stainless steel valves, fittings
- optional polished surface of sterilising chamber with roughness of Ra 0,8 µm (32 µinch) or Ra 0,125 µm (5 µinch)
- double sided construction, enabling joining of two service rooms into one



Statistics

Invoicing

Remote monitoring

- “Air detector” – device, evaluating quantity of air and incondensable gases in the sterilization chamber during the sterilization cycle; eventual leakages, not detected by the Vacuum test in the morning are identified immediately and the process is interrupted
- more than 60 other optional specific additives

## Broad range of operating programmes options

The steam sterilizers line **STERIVAP HP** can be used for sterilization of solid, porous and plastic materials and solutions in open bottles.

The sterilizer is standardly equipped with “Preheating program” (134 °C/1 min).

**In basic program design we offer up to 20 standard programmes.**

**Examples of standard and validated programs:**

- Unwrapped tools 134 °C/4 min
- Wrapped materials 134 °C/7 min
- Wrapped materials with intensive subsequent drying 134 °C/7 min
- Wrapped products of glass, rubber and plastics 121 °C/20 min

**Standard testing programs for routine testing:**

- Vacuum test
- Bowie&Dick test

The program equipment can be extended and modified by means of chip cards and special service software.

## Service

Built-in automatic diagnosis and set of service programs together with ON-LINE internet diagnosis and monitoring of sterilisation device ensures an optimal service.

## User friendly operation

Advanced “touch-screen” 12” technology with ergonomically adjustable panel ensures clear and simple operation. Standard equipment of the instrument is the built-in printer for documentation of sterilization processes.



**Examples of special programs:**

- Prions 134 °C/60 min
- Disinfection 105 °C/20 min
- Solutions in open bottles 121 °C/20 min
- Automatic starting the instrument at the morning – pre-heating and Vacuum test – without operator



## Versatile using

A broad range of accessories is available to the sterilizers.

Systems for manual material inserting or systems of transport and charging carts are adapted according to sterilizer size, optional container system and sterilization baskets. Modular system enables to build in the instruments into stainless steel partition walls.

For sterilising of solutions the sterilizer can be equipped by movable temperature sensor PT 100 and dripping tank for solutions.

Synoptic documentation of batches can be ensured:

- standard built-in printer
- connecting of external A4 printer
- connecting of sterilizer to the computer and "Printer Archiv" software

- connecting of sterilizer to the computer network (LAN)
- with the bar code reader

If the pressurised air or demi-water is not available, we offer supply of compressors or water treatment device.

In case of built-in steam generator we offer monitoring of maximum of power take-off.

## Validation

We offer the validation of the instruments (IQ, OQ, PQ) according to EN ISO 17 665-1 to our clients on place of installation. The tests are performed according to EN 285 and according to the authorised methodologies by our accredited laboratory No. 1325.

# Technical parameters



Model SP HP	Dimensions (hwxwd) [mm]		Number of sterilization modules	Chamber volume [l] Total	Weight [kg]	Max. input [kW]/ fuses [A]		Max. consumption per 1 sterilization cycle				
	Internal dim. of the chamber	External dim. of the unit				ED	FD	Water [m <sup>3</sup> ]	Demineralized water [m <sup>3</sup> **]	Steam [kg]	Electric energy [kWh]**	Electric energy [kWh]*
446-1	480x450x 700	1918x1200x 970	1	148	650	24,5/63	2/10	0,06	0,006	5,0	5,0	0,3
446-2	480x450x 700	1918x1200x 990	1	148	700	24,5/63	2/10	0,06	0,006	5,0	5,0	0,3
636-1	670x350x 700	1918x1000x 970	2	160	690	24,5/63	2/10	0,06	0,006	5,0	5,0	0,3
636-2	670x350x 700	1918x1000x 990	2	160	720	24,5/63	2/10	0,06	0,006	5,0	5,0	0,3
666-1	700x650x 690	1918x1300x 970	4	314	850	38/63	2/10	0,07	0,008	7,0	6,0	0,4
666-2	700x650x 690	1918x1300x 990	4	314	920	38/63	2/10	0,07	0,008	7,0	6,0	0,4
669-1	700x650x 990	1918x1300x1270	6	453	950	47/80	2/10	0,08	0,009	9,0	7,5	0,4
669-2	700x650x 990	1918x1300x1290	6	453	1020	47/80	2/10	0,08	0,009	9,0	7,5	0,4
6612-1	700x650x1340	1918x1300x1620	8	610	1150	48/80	3/10	0,09	0,011	11,0	9,0	0,6
6612-2	700x650x1340	1918x1300x1640	8	610	1200	48/80	3/10	0,09	0,011	11,0	9,0	0,6
6618-2	700x650x1940	1918x1300x2240	12	885	1500	66/100	4/16	0,20	0,013	15,0	15,0	1,4
9612-1	1000x650x1340	1918x1900x1620	12	868	1500	66/100	4/16	0,20	0,013	15,0	16,0	1,4
9612-2	1000x650x1340	1918x1900x1640	12	868	1800	66/100	4/16	0,20	0,013	15,0	16,0	1,4
9618-1	1000x650x1940	1918x1900x2220	18	1260	2400	76/125	5/16	0,30	0,025	23,0	23,0	1,7
9618-2	1000x650x1940	1918x1900x2240	18	1260	2600	76/125	5/16	0,30	0,025	23,0	23,0	1,7
9621-2	1000x650x2300	1918x1900x2600	21	1490	2900	-	5/16	0,40	-	26,0	-	2,0

Model 9612, 9618, 9621 – with horizontally sliding door(s).  
 Model xxx-1 single-door type, model xxx-2 double-door type.  
 Connecting voltage 3P/PE 400 V, 50/60 Hz.  
 Noise level max. 78 dB.  
 Model 6618, 9612, 9618, 9621 – steam generator is placed above or beside the sterilizer

\* Model FD – steam of central source.  
 \*\* Model ED – own integrated steam generator.  
 Model 9618 – only FD model



Changes in the design and make reserved.



## STERIVAP

- high utility value for reasonable price

## STERIVAP HP

- more individuality and comfort

New design, ergonomic panel...  
 Protected by industrial design...

## Make acquaintance with our further offer...



Small steam sterilizers, 15 – 25 l



Steam sterilizer 70 l



Laboratory driers and incubators 22 – 707 l



Stainless steel accessory equipment



Formaldehyde sterilizer 110 l



Bowie & Dick tests



Tests of sterilising efficiency



Cleaning and disinfection agents

# www.bmt.cz



MMM Group



BMT Medical Technology s.r.o., Cejl 50, CZ 656 60 BRNO  
Tel.: +420 545 537 111, fax: +420 545 211 750, e-mail: mail@bmt.cz, <http://www.bmt.cz>

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