



**BHT**<sup>®</sup>  
Hygienetechnik

**Atherton**

# INNOVA<sup>®</sup>

## M4, M5 and M5-ISO

*Clean solutions in the CSSD*



Certified by DQS according to  
DIN EN ISO 9001: 2000  
DIN EN 13485: 2003  
Reg. No. 019906-01

**INNOVA<sup>®</sup>**  
M4, M5 and M5-ISO

BHT<sup>®</sup>  
Hygienetechnik

CE 0207

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**INNOVA**  
**M5**

# Flexible equipment for economic results: modular washer / disinfectors

Areas of utilisation

## BHT – experts for innovative cleaning and disinfecting techniques

BHT is the well-known specialist for automatic cleaning, disinfection and drying of wash goods in hospitals, laboratories and industry. We are well established on the market since 1978. Our main area of competence: We realize innovative cleaning and disinfection techniques which grant maximum hygiene security at a minimum of ecological damage – and this for a reasonable price.

Extensive patents show the potential of BHT. The company is certified DIN EN ISO 9001 and DIN EN ISO 46001.

The rising expenses in the health service have also influences on the CSSD-departments. Economic and safe solutions are required – solutions which offer professional washer/disinfectors.

**The problem:** In spite of a rising number of examinations, hospitals may not exceed the budget. On the other side, the capacity of the CSSD department also may not be too low.

**BHT Hygienetechnik offers solutions:** With the INNOVA® M4, M5 and M5-ISO we offer three washer/disinfectors, which provide high efficiency in the CSSD.

Our long experience in the development of high quality machines, which cope with the strong requirements in the CSSD, also offers advantages in other fields: in the laboratory field and also in the chemical and pharmaceutical industry.

**In general:** Only the one who surely masters the control of all wash parameters, can grant optimum results.

The four parameters Temperature, Time, Mechanics and Additives have to be well-suited to each other. Only in this case, optimum results can be achieved with a washer/disinfectant.

### Temperature

Precise temperature course for the single phases, controlled by high-quality temperature sensors

### Mechanical effects

High pump capacity and the specific design of the conducts ensure that the water is brought directly to the wash goods.

### Time

Exact regulation of the holding times by microprocessor control

### Additives

Secure, volumetric and validatable dosage of the additives

**INNOVA®**  
M4, M5 and M5-ISO

# Three types – for more efficiency in the CSSD

## Model types



Perfect hygienic clean room concepts



Flexible loading / unloading systems



Individual racks for all kinds of wash goods

For hospitals of any size, the INNOVA® M4, M5 and M5-ISO are the ideal solution. With these machines we offer a complete solution which can be individually adjusted to the requirements of the customer.

The INNOVA® M4 with bottom-hinged doors is suitable for smaller capacities, the INNOVA® M5 and M5-ISO with sliding doors are optimal for bigger volumes.

All three machines are available as single door models and also as pass-through models with two doors. When they are installed in a row, you can achieve a perfect, individual clean room concept.

### Loading / unloading system:

The transport trolley is the optimum supplement for the INNOVA® M4, M5 and M5-ISO. It makes the loading / unloading of the INNOVA® M4, M5 and M5-ISO easier and serves also for the comfortable transport of the wash goods.



① INNOVA® M4 – the well-established standard model

# M5

M5-ISO



② INNOVA® M5 and ③ INNOVA® M5-ISO – space-saving models with higher capacity

**INNOVA**  
M5, M5 and M510



**B**  
Hygiene

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**M5**



## Behind the success there is a system

Performance features and construction



Individual **rack docking** for the washing and drying. For the **stabilisation of the water pressure** in the rotating arms and in the nozzles (also with different loadings) the pump pressure is constantly controlled.

The **drying** is carried out via the wash system. The drying air is applied to the wash goods from outside and inside, so that a contamination of the water channels by water germs is securely ruled out.

The machines are completely made of **stainless steel Cr-Ni 1.4301**.

The stabile construction of the doors with metallic **labyrinth seal** prevents steam leakages and loss of temperature.

The welded stainless-steel-construction grants an almost



The **automatic rack coding** CleanCode<sup>®</sup> (option) makes the handling easier and prevents user's errors.

Freely **programmable microprocessor control** with 16 programs. The connection to an external documentation PC via an interface is an option. The batch data can be collected and stored on the PC using an additionally available software.

Especially for the use in the laboratory field, BHT offers as an option a **validation package** or a patented individually operating **GMP-rinsing**, which offers – thanks to a special rinsing procedure – highest cleanness at an extremely low need of water.



The **heating** of tank, dryer and optional DI-water-boiler can be carried out either electrically or optionally with steam-heat-exchangers. The heating system grants an optimum use of energy.

The INNOVA<sup>®</sup> M4, M5 and M5-ISO are equipped with 2 **dosage pumps** for liquid additives as standard. For the volumetric control of the additive the machines have also 2 volumetric, validatable **dosage controls**. 2 level controls indicate the need of refilling the additive canisters.

2 independent circulation pumps supply the rotating arms and the water channels for the direct jet spraying. Thanks to the **well-established complete evacuation** of the tank and of the pumps, any entrainment of the lye is completely ruled out.

**Maintenance-friendly** access of all components.

# Good results by pushing a button

Programming and program procedure



**INNOVA**  
M4, M5 and M5-ISO

## Microprocessor Control

16 programs for thermal and chemical/thermal disinfection (incl. program according to RKI) are available. In all programs the parameters like temperature and time can be individually adapted.

## Key panel

The program choice is made via a clear key panel. On the full-text display, information on the actual program, the process steps and status messages are indicated.

Process parameters can be individually adjusted by a technician according to the customer's requirements. The diagnosis of the system is also possible via the key panel. This makes maintenance and service easier and reduces the service time.

## Printer

By the optional printer the program procedure and the batch parameters are documented.





## Everything under control – in multiple ways

### Application examples

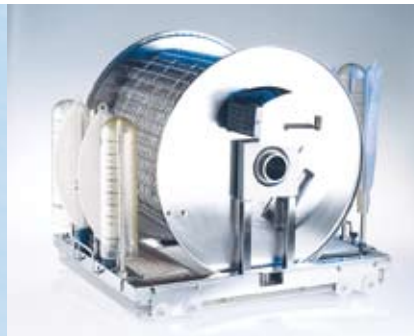
#### Load carrier systems

The multiple BHT-rack program grants optimum possibilities for different kinds of wash goods. For individual solutions for the treatment of special wash goods, we offer the possibility to create custom made racks with wash good samples.

#### Rack coding

On all racks an automatic program choice by rack coding is optionally available. With this, the suitable program is automatically selected thus eliminating the risk of faulty program selection.

Are you interested in further applications and individual solutions? You can get detailed information on the range of racks in our catalogue Load Carrier Systems.



AN-hoses and accessories



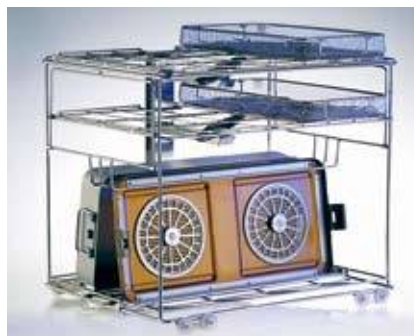
Anesthetic material



MIS-instruments



OP and micro-instruments



Containers of different kinds



Theatre shoes



Laboratory glassware



Pipettes

## The technics at one glance

### Accessories and technical data

	INNOVA® M4	INNOVA® M5	INNOVA® M5-ISO
Dimensions (WxDxH)	800 x 750 x 1975 mm	900 x 840 x 2000 mm	900 x 1040 x 2000 mm
Wash chamber (WxDxH)	500 x 650 x 625 mm	650 x 680 x 625 mm	650 x 880 x 625 mm
Material	Housing and wash chamber completely made of stainless steel Cr-Ni 1.4301		
Electrical connections	3 x 400 V, 50 Hz	3 x 400 V, 50 Hz	3 x 400 V, 50 Hz
Fuse protection	32 A	32 A	40 A
Connected load	16 kW	16 kW	22 kW
Water supply	CW, WW (max. 22° dH), DI-water (max. 10 µS)		
Supply / flow pressure	8 – 20 l/min., 2 – 5 bar		
Connection	3/4", DN 20		
Drain	DN 70, 30 l/min.		
Steam (option)	3/4", 1,5 – 3 bar		
Condensate (option)	3/4", without pressure		
Pump capacity	effective 600 + 290 l/min.		
Drying capacity	450 m <sup>3</sup> /h		

### Standard equipment

- with optional interface for the connection to a documentation system
- Key panel with alphanumeric display
- additives
- 2 dosage controls and 2 level controls
- Level control device regulates the filling and draining of the machine
- 2 independent circulation pumps for the supply of the rotating arms and the racks
- High capacity air drying via the wash system for the drying from inside and outside
- Supervision of the pump pressure
- Complete drainage of the pumps avoids cross contamination
- CE-certification
- Validatable according to prEN ISO 15883 and HTM 2030



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