

## Washer-disinfectors for hospitals and central sterilisation departments





# Customised systems, professional processes, reliable results

**Miele stands for innovation in all areas of systematic cleaning and disinfection of medical instruments: system components, processes and service. Miele offers validatable machine processing that is versatile, reliable and economical.**

## **Safety born of practice**

In the field of clinical practice, medical know-how and professional instruments ensure optimum treatment and care of patients. For this, systematic cleaning, disinfection, drying and sterilisation of instruments are pre-requisites for avoiding risk to both patients and staff.

Machine processing of instruments has become an essential part of ensuring that standards are met because, in line with the Medical Devices Directive, cleaning and disinfection must be carried out with validated procedures. This, combined with system components and disinfection programmes designed to meet specific requirements, is the only way to ensure that the most important criteria of professional instrument preparation are met:

## **Reliability, economy, validatability**

Miele's washer-disinfectors ensure optimum cleaning results and thermal disinfection in compliance with the provisions of international standard DIN EN ISO 15883. The current G 7823/G 7824, G 7825/G 7826 and PG 8527/PG 8528 machines offer systems for a variety of capacity requirements. They can be individually configured to give both central and decentralised solutions for hospitals. The user will not only benefit from the reliability of Miele innovation in terms of the quality and performance of the machine components, but also from specially developed cleaning programmes designed to suit the specific cleaning requirements of a variety of surgical instruments which guarantee optimum results time after time.

The development and production of washer-disinfectors are incorporated into Miele's Quality Assurance Scheme, which in turn is in full compliance with DIN EN ISO 13485. Miele also adheres to its own principals of only producing long lasting appliances of the highest quality which not only offer high performance, efficiency and reliability, but also, throughout their life cycle, have as little impact on the environment as possible. The appliances are certified as Class 2a medical products in accordance with 93/42/EWG and carry the CE 0366 mark.

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# Special processes for critical surgical instruments

## Typical Miele

Concepts are based on experience and innovation. Miele has been at the forefront of development in the field of washer-disinfectors for hospitals and surgeries for several decades now. Alongside a wide range of machines with a variety of capacities, Miele offers systematic solutions geared to the specific needs of every type of instrument: machines, accessories and cleaning processes, not to mention comprehensive service. Miele has become the market leader for innovation thanks to intensive development work and close cooperation with hygiene specialists, scientists, instrument manufacturers and end users.

As well as seeking constantly to improve the efficiency of their washer-disinfectors, Miele Professional has also developed its own machine cleaning processes. For a long time, the VARIO TD process introduced in 1994 was the standard programme for the professional processing of medical instruments. Now, with the development of the OXIVARIO®, OXIVARIO PLUS® and ORTHOVARIO® processes (patent pending), Miele has set new milestones on the way to even greater reliability and economy in the processing of instruments. With the new cleaning processes, even stubborn protein residues are reliably removed using oxidation, while offering optimum protection for stainless steel and aluminium instruments. Miele has taken yet another important step in the direction of offering optimum system solutions for the preparation of medical instruments: even greater efficiency, even greater reliability, even greater economy.

OXIVARIO®, OXIVARIO PLUS® and ORTHOVARIO® – individual processes for critical instruments

## Milestones for the optimising of cleaning results:

Two Miele innovations for particularly critical applications

The thorough cleaning of contaminated surgical instruments and accessories is essential for subsequent reliable disinfection and sterilisation. Even optimised processes and highly developed wash technologies can reach the limit of their abilities in certain situations, making it essential to have additional performance levels for preparing instruments by machine. With the unique OXIVARIO®, OXIVARIO PLUS® and ORTHOVARIO® processes Miele has created innovative options that give optimum cleaning results for a variety of materials and types of soiling.





# The complete Miele system: Technology, process, customer service

## **Miele offers hospitals all round efficiency, reliability and safety for a trouble-free daily routine.**

Miele offers everything necessary for safe, economical preparation of medical instruments. From manufacturing machines and accessories to the development of controls, programmes and cleaning processes, to comprehensive service, Miele does it all. This gives the customer a great number of benefits:

### **Highly developed and manufacturing processes**

- Highest product quality
- Economical use of raw materials, energy and water
- Wide ranging avoidance of emissions and waste
- Use of the best available, environment friendly technologies

### **Simple, reliable and intelligent operation of the machine**

- Tried and tested standard programmes, innovative special programmes
- Easy to use electronic controls
- Interfaces for process documentation, customer service and servicing
- Guaranteed conformity with DIN EN ISO 15883

### **Efficient cleaning and reliable processes**

- Intensive development work in cooperation with hygiene specialists, scientists and end users
- Process development in line with guidelines for critical applications

### **Service from the planning stage to all phases of use**

- In-house advice team to help with every individual requirement
- Widespread Miele service network for fast and efficient service
- Validation by Miele service technicians
- Customised service contracts
- Attractive finance packages (depending on country)

## **Miele Service:**

**First rate service to benefit the user**

### **Service contracts and training – safety for the user.**

**Competent Miele service, qualified personnel**

Miele offers a service package designed specifically to meet the needs of the medical practice. A competent team of highly knowledgeable medical product advisors is available to advise on everything from the planning stage to using the machines in practice. As well as offering comprehensive service, Miele Customer Service can help with optimising and customising cleaning processes for specific instruments to make the use of the machines in hospitals simple, safe and economical.

## **Flexible system solutions –**

**reliable, economical, for every capacity requirement**

**Whether for central or decentralised preparation, Miele washer-disinfectors, equipped with special mobile units and injector systems, offer optimum individual solutions for all medical disciplines.**

Miele washer-disinfectors offer versatile installation options for the central and decentralised preparation of medical instruments in hospitals. There are solutions for CSSDs, as well as individual solutions for specific departments' requirements. There are three classes of machine available, differentiated by appliance size and the volume of the wash chamber, which can be installed in various combinations according to need.





# Washer-disinfectors G 7823 and G 7824

The series G 7823/G 7824 is designed specially to meet the needs of small to medium sized hospitals. With a width of only 900 mm, these machines are the perfect professional solution for daily instrument preparation in situations where space is limited. They are available as a single door, front loading model (G 7823) or as a double-door, through-feed version with separation of clean/unclean sides to suit the space available and the individual hygiene requirements.

## Flexible solutions for central and decentralised instrument preparation

Miele washer-disinfectors G 7823 and G 7824 offer versatile installation solutions which can be individually and economically adapted to the needs of each hospital. This means that the machines are equally suitable for decentralised instrument processing in special departments and the preparation of large volumes of instruments in the CSSD.

## Decentralised instrument processing

With a space requirement of only 900 mm, these powerful machines enable instruments for applications such as ophthalmology to be processed on the spot. The quick circulation of special instruments and their fast re-availability, the need for fewer expensive sets of instruments and the machines' experienced handling of complicated instruments all go to make these appliances the ideal solution.

## Central instrument processing

For central instrument processing, one or more Miele washer-disinfectors can be installed in the CSSD, depending on the size of the hospital. Placing the machines side-by-side can increase the output capacity and optimise flexibility. The single chamber principle of all Miele washer-disinfectors (each machine cleans, disinfects and dries independently of the others) makes them particularly versatile and economical. Every instrument is thoroughly cleaned and reliably disinfected. The wash cabinet is designed to hold 8 DIN mesh trays or 3 DIN containers measuring 150 x 300 x 600 mm. For optimum hygiene, separation of clean/unclean sides is necessary.

Output comparison	Width/depth	Doors	Wash cabinet Dimensions H/W/D Wash cabinet volume	Load capacity
G 7823/G 7824	900/750 mm	Drop-down doors	510/530/620 mm 168 l	8 DIN Mesh trays
G 7825/G 7826	900/750 mm	Drop-down doors	683/541/610 mm 225 l	10 DIN Mesh trays
PG 8527/PG 8528	1150/870 mm	Lift-up doors	675/650/800 mm 351 l	15 DIN Mesh trays

# Versions and capacity



Unclean side

## Versions

- G 7823: Front loading machine with drop-down door
- G 7824: Through-feed barrier machine with drop-down doors for separation of clean/unclean sides

## Load capacity

- 8 DIN mesh trays  
or 3 DIN containers 150 x 300 x 600 mm  
or 1 DIN container 300 x 300 x 600 mm  
and 1 DIN container 150 x 300 x 600 mm  
or 3 AN-sets  
or 2 MIS-sets

## Construction

- Can be installed singly or in a row  
Side by side
- Width 900 mm
- Modular concept, can be set up to suit different applications
- Single chamber system for cleaning, disinfection and drying
- Service friendly construction
- Heating element outside wash cabinet
- Low heat and noise emissions thanks to double insulation



## Miele quality – Made in Germany

For decades, Miele washer-disinfectors have been an indispensable part of quality assurance in hospitals, clinics and CSSDs. Every part of them demonstrates uncompromising quality and offers the user the highest levels of hygiene, reliability and economy.

For technical data see pages 66/67

# Standard features



Clean side

## Cleaning technology

- Hygienic freshwater system with water change after each cleaning phase
- Cleaning, disinfection and drying in a closed system
- 2 spray arms in the wash cabinet for thorough surface cleaning of instruments
- Spray arms with high energy performance to clean surfaces
- Minimal residues and best possible cleaning results
- Direct connection of mobile unit to water inlet for maximum use of wash liquor
- Injector system for thorough cleaning of hollow instruments

## Standard features

- 2 powerful circulation pumps
- 3-fold filter system with flat filter, coarse filter and micro-fine filter
- Filter system in hoses
- Flowmeter counter for control of water intake
- Drain valve

## Dispenser systems

- 2 dispenser pumps for liquid cleaning agents and acidic agents

## Controls

- Freely programmable PROFITRONIC controls
- 64 programme places
  - 13 standard cleaning and disinfection programmes
  - 8 service programmes
  - 43 freely programmable places
- User guidance with clear text display
- Indicators for operation and programming dialogue, programme running time, error messages and programme sequence
- Programming of new programmes directly into the machines via PC or laptop using the optical interface

## Interfaces

- Serial interface RS 232 for process documentation
- Optical interface for customer service and servicing work

## Safety features

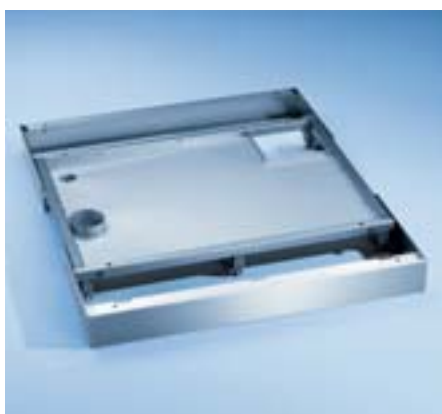
- Electrical door lock
- Programme failure check
- Peak load cut-out
- Audible and visual signal at programme end
- 2 sensors for temperature monitoring and control
- Sensor port for easy positioning of probes in the wash cabinet for validation
- Sensors in wash cabinet and magnetic strip for automatic mobile unit recognition and positioning

# Modular concept

## Optional additional features



Unclean side



### Plinth/drip tray

To install the appliance without onsite plinth

- Base with integrated drip tray
- Cut-outs for service connections
- A single plinth facing can be fitted on site when installing several machines in a row
- Mobile plinth for G 7823 allows machine to be easily moved away from the wall for service access



### Dispenser system

- 1 dispenser pump each for liquid cleaning agents and acidic agents available as optional extras

### Water softener (optional)

- Large capacity water softener

### Water outlet

- 2 drain pumps

### Steam condenser (optional)

- Integrated steam condenser in form of heat exchanger. No water consumption when connected to onsite cold water supply.



**Drying unit** (optional)

- Hot-air drying system (electrically heated)
- Maintenance-free three phase motor with side channel connection
- Temperature settings from 60–115°C
- Freely adjustable time settings from 1–240 min
- 2 pre-filters class EU 4, filtration rate >95%, filter life 200 h
- 2 x 2 particle filters H 13, filtration rate >99.992%, filter life 500 h

**Printer** (optional)

- Integratable 6-pin printer for reporting important process data

**Housing MAV 23/24**

- Stainless steel casing with lockable service panels for enclosing the steam condenser
- MAV without cover
- Any facing above the unit to be provided onsite
- H 512, W 900, D 768 mm

**Mieltransfer MF/3**

- Transfer trolley for easy handling of mobile units
- Foot-operated lifting mechanism
- 4 lockable wheels
- H 1182, W 600, D 807 mm, +/- 100 mm
- Loading height 751 mm, +/- 100 mm

# Mobile units with 1–3 levels



## E 550 Mobile unit

- Mobile unit with 1 level
- To take various inserts
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 250, W 530, D 645 mm



## E 550 with insert E 730

- Mobile unit and insert for 20 theatre shoes
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 298, W 530, D 645 mm



## E 555 Mobile unit

- Mobile unit with 2 levels
- Clearance from below: 210/219 mm
- Lower level W 487, D 592 mm
- Upper level W 495, D 548 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 298, W 530, D 645 mm

Illus. shows load consisting of container E 135 for baby bottles and insert E 364 for teats



## E 524 Mobile unit

- Mobile unit with 3 levels
- Clearance per level 125 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 390, W 530, D 645 mm

Illus. shows load consisting of 6 DIN mesh trays E 142

# Mobile units with 3–4 levels

## Mobile units for containers



### E 525/1 Mobile unit

- Mobile unit with 3 levels, extendable to 4 levels
- H 298, W 530, D 645 mm
- Clearance from below: 80/80/219 mm
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)



### E 525/1 Mobile unit with add-on module E 702

- Mobile unit with 4 levels
- H 458, W 530, D 645 mm
- Clearance from below: 80/80/90/80 mm
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)



### E 703/1 Modular insert for E 525/1 and E 701

- Injector unit with 7 hollow instruments
- H 170, W 80, D 555 mm

Illus. shows load consisting of 8 DIN mesh trays E 142



### E 527/1 Mobile unit

- Mobile unit for 1 DIN container 300 x 600 mm and 1 DIN container 150 x 600 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 500, W 530, D 645 mm



### E 528 Mobile unit

- Mobile unit for 3 small DIN containers 150 x 600 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 500, W 530, D 645 mm

# Mobile units for MIS instruments



## **E 526/1 Mobile unit /injector**

- Mobile unit with 2 levels for MIS instruments and accessories
- Clearance from below: 100 mm
- Max. length of MIS instruments: 600 mm
- H 498, W 530, D 645 mm
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)

Illus. shows E 526/1 with mesh tray E 451 for small items, insert for fibre optics, mesh tray E 457 for separable MIS instruments

## **Supplied as standard:**

- 3 x E 336 Injector sleeves MIBO for pipettes/MIS instruments
- 2 x E 362 Blanking screws
- 15 x E 442 Injector sleeves for MIS instruments Ø 4–8 mm
- 5 x E 443 Injector sleeves for MIS instruments Ø 8–12 mm
- 1 x E 444 Insert/spiral rack for fibre optic cables or suction tubes
- 1 x E 445 12 caps for injector sleeve/ MIS instruments 6 mm
- 1 x E 446 12 caps for injector sleeve/ MIS instruments 10 mm
- 3 x E 447 Female adapters, for male Luer locks
- 6 x E 448 Silicone tubes 300 mm long, 5 x 1.5 mm
- 5 x E 449 Male adapters, for female Luer locks
- 1 x E 451 Insert 1/6 mesh tray, H 55, W 150, D 225 mm
- 3 x E 452 Injector jets 2.5 x 60 mm
- 8 x E 453 Injector jets 4.0 x 110 mm with holder
- 6 x E 454 Injector jets for trocar sleeves 10–15 mm
- 4 x E 456 Spring clips for MIS instruments
- 3 x E 464 Holder for injector jets E 454
- 2 x E 472 Clamp for injector jets diameter 4.0 mm
- 2 m Silicone tube, ø 5 mm, T.-Nr. 4822830

For further accessories such as injector sleeves see page 56

# Mobile units for MIS instruments/modular system



## **E 574/1 Mobile unit**

- Modular system for approx. 2 MIS-OP-Sets
- For hollow instruments in 3 inserts with integrated jets/adapters
- To take:
  - E 903/1 Modular insert for short MIS instruments/Urology
  - E 905/1 Modular insert for short MIS instruments
  - E 906/1 Modular insert for long MIS instruments
  - 3x E 444 spiral rack for fibre optic cables and suction tubes
  - 1x E 460 Insert for rigid fibre optics and
  - 1x E 457 Insert for separable MIS instruments or
  - 1x E 142 DIN mesh tray
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 500, W 530, D 645 mm

## **Supplied as standard with:**

- 3x E 447 Female adapters
- 6x E 362 Blanking screws

Modules are described on page 51

# Mobile units for micro instruments



## **E 529 Mobile unit /injector**

- For 4-5 OP-Sets
- Mobile unit with 3 levels for micro instruments and accessories, of which:
- 2 levels for mesh trays
- 1 level with 16 / 30 injector jets
- E 478 can be connected to water intake pipe
- Clearance from below: 124/114.5/160 mm
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 471, W 530, D 645 mm

Illus. shows E 529 with 4 DIN mesh trays E 142, fitted with holders E 476 and stoppers E 477 for micro instruments

For further accessories for micro instruments see page 55

Geuder AG recommends that its current range of instruments be cleaned and disinfected in Miele washer-disinfectors.

**Geuder**<sup>®</sup>  
Precision made in Germany



## **E 478 Holder**

- For 4 narrow lumen cannulae (Sautter)



## **FP**

- Filter plate for E 478
- Porosity 2
- Diameter 30 mm
- 20 pieces per bag

# Mobile units for anaesthetic instruments



## **E 515/1 Mobile unit /injector**

- Mobile unit for 3 AN-Sets or 9 breathing tubes up to 1.5 m long and accessories
- Mesh tray E 430
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 500, W 530, D 645 mm



# Washer-disinfectors G 7825 and G 7826

In terms of size and capacity, G 7825 and G 7826 are Miele's medium sized washer-disinfectors for CSSDs. The distinguishing features of this series are the performance capacity of up to 10 DIN mesh trays per batch and the installation dimensions of only 900 wide x 750 deep mm. The two versions G 7825 (single door front loader) and G 7826 (double door through feed machine with separation of clean/unclean sides) can be installed singly or in a row, offering system solutions for the safe and efficient preparation of large to very large quantities of instruments.

## Comprehensive standard features and optional extras

The modular appliance concept of the Miele washer-disinfectors G 7825 and G 7826 offers great flexibility for individual installation requirements and hygiene concepts thanks to the comprehensive range of standard features and optional extras. For example, the mobile plinth/drip tray on the G 7825 makes it particularly service friendly. The Miele Transfer Trolley MF/3 makes the handling of mobile units for the washer-disinfectors very easy.

## Miele Quality – Made in Germany

Every component is manufactured to Miele's uncompromising level of quality. The wash cabinet, water connection and drip tray are all made of high quality stainless steel. Two stainless steel spray arms ensure an optimum distribution of water for perfect cleaning results. The heating elements are outside the wash cabinet, in a position where they require next to no maintenance. Double insulation ensures low levels of heat and noise emissions, and keeps energy consumption to a minimum. The machines are available for electric or steam heating or as a steam to electric convertible version. The washer-disinfectors and all process parameters are controlled and monitored by highly developed electronic controls, developed in-house by Miele's electronics department and designed to meet the specific demands of reliable instrument processing.

Output comparison	Width/depth	Doors	Wash cabinet Dimensions H/W/D Wash cabinet volume	Load capacity
G 7823/G 7824	900/750 mm	Drop-down doors	510/530/620 mm 168 l	8 DIN Mesh trays
<b>G 7825/G 7826</b>	<b>900/750 mm</b>	<b>Drop-down doors</b>	<b>683/541/610 mm</b> <b>225 l</b>	<b>10 DIN Mesh trays</b>
PG 8527/PG 8528	1150/870 mm	Lift-up doors	675/650/800 mm 351 l	15 DIN Mesh trays

# Versions and capacity



Unclean side

## Versions

- G 7825: Front loading machine with drop-down door
- G 7826: Through-feed barrier machine with drop-down doors for separation of clean/unclean sides

## Load capacity

- 10 DIN mesh trays  
or 4 DIN containers 150 x 300 x 600 mm  
or 2 DIN containers 300 x 300 x 600 mm  
or 4 AN-sets  
or 2 MIS-sets

## Construction

- Can be installed singly or in a row side-by-side
- Width 900 mm
- Modular concept, can be set up to suit different applications
- Single chamber system for cleaning, disinfection and drying
- Service friendly construction
- Heating element outside wash cabinet
- Low heat and noise emissions thanks to double insulation



## Miele quality – Made in Germany

For decades, Miele washer-disinfectors have been an indispensable part of quality assurance in hospitals, clinics and CSSDs. Every part of them demonstrates uncompromising quality and offers the user the highest levels of hygiene, reliability and economy.

For technical data see pages 68/69

# Standard features



Clean side

## Cleaning technology

- Hygienic freshwater system with water change after each cleaning phase
- Cleaning, disinfection and drying in a closed system
- 2 spray arms in the wash cabinet for thorough surface cleaning of instruments
- Spray arms with high energy performance to clean surfaces
- Minimal residues and best possible cleaning results
- Direct connection of mobile unit to water inlet for maximum use of wash liquor
- Injector system for thorough cleaning of hollow instruments

## Standard features

- 2 powerful circulation pumps
- Triple filter system with flat filter, coarse filter and micro-fine filter
- Filter system in hoses
- Flowmeter counter for control of water intake
- Drain valve

## Dispenser systems

- Dispenser pumps for liquid cleaning agents and acidic agents

## Controls

- Freely programmable PROFITRONIC controls
- 64 programme places
  - 17 standard cleaning and disinfection programmes
  - 8 service programmes
  - 39 freely programmable places
- User guidance with clear text display
- Indicators for operation and programming dialogue, programme running time, error messages and programme sequence
- Programming of new programmes directly into the machines via PC or laptop using the optical interface

## Interfaces

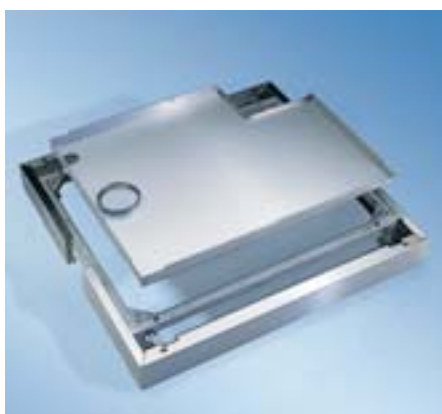
- Serial interface RS 232 for process documentation
- Optical interface for customer service and servicing work

## Safety features

- Electrical door lock
- Programme failure check
- Peak load cut-out
- Audible and visual signal at programme end
- 2 sensors for temperature monitoring and control
- Sensor port for easy positioning of probes in the wash cabinet for validation
- Sensors in wash cabinet and magnetic strip for automatic mobile unit recognition and positioning

# Modular concept

## Optional additional features



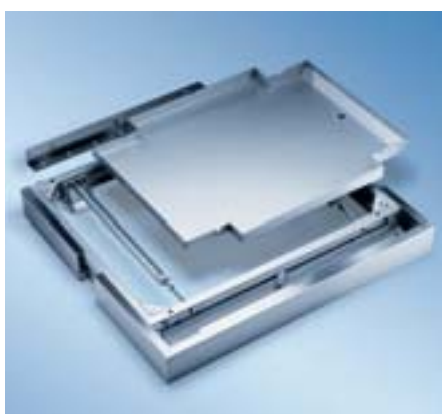
### Plinth/drip tray

To install the appliance without onsite plinth

- Base with integrated drip tray
- Cut-outs for service connections
- A single plinth facing can be fitted on site when installing several machines in a row
- Mobile plinth for G 7825 allows machine to be easily moved away from the wall for service access

### Wash cabinet

- Boiler for demineralised water



### Dispenser system

- 1 dispenser pump each for liquid cleaning agents and acidic agents available as optional extras

### Water softener

- Large capacity water softener (external)

### Water outlet

- 2 drain pumps

### Steam condenser

- Integrated steam condenser in form of heat exchanger. No water consumption when connected to onsite cold water supply.



#### **Drying unit**

- Hot-air drying system (electrically heated)
- Maintenance-free three phase motor with side channel connection
- Temperature settings from 60–115°C
- Freely adjustable time settings from 1–240 min
- 2 pre-filters class EU 4, filtration rate >95%, filter life 200 h
- 2 x 2 particle filter EU 13, filtration rate >99.992%, filter life 500 h

#### **Printer**

- Integratable 6-pin printer for reporting important process data

#### **Housing unit MAV 25/26**

- Stainless steel casing with lockable service panels for enclosing the steam condenser or drying unit
- Vents on the unclean side
- Any facing above the unit to be provided onsite
- H 430, W 900, D 750 mm

#### **Mieltransfer MF/3**

- Transfer trolley for easy handling of instrument mobile units
- Foot-operated lifting mechanism
- 4 lockable wheels
- H 1182, W 600, D 807 mm, +/- 100 mm
- Insert level 751 mm, +/- 100 mm

# Mobile units with 2–5 levels



## **E 775 Mobile unit TA (empty)**

- For inserts on 2 levels
- Built-in spray arm
- Clearance from below:
  - Level 1: H 304, W 482, D 590 mm
  - Level 2: H 290, W 488, D 546 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 400, W 530, D 600 mm



## **E 735/1 mobile unit TA (empty)**

- For inserts on 3 levels
- 2 built-in spray arms
- Clearance from below:
  - Level 1: H 203, W 482, D 590 mm
  - Level 2: H 203, W 488, D 546 mm
  - Level 3: H 133, W 488, D 546 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 552, W 530, D 600 mm



## **A 7/1 Insert**

- Perforated base
- Perforations 7 x 7 mm
- Web 3 mm
- For use in E 775, E 735/1 and E 701/1
- H 1, W 543, D 473 mm



**E 701/1 mobile unit TA (empty)**

- For DIN/ISO mesh trays on 4 levels
- 3 built-in spray arms
- Clearance from below
  - Level 1: H 87, W 482, D 590 mm
  - Level 2/3: H 87, W 488, D 546 mm
  - Level 4: H 223, W 488, D 546 mm

**E 701/1 mobile unit with E 702:**

- Level 4: H 87, W 488, D 546
- Level 5: H 81, W 488, D 546
- Load capacity
  - 8 DIN trays 485 x 254 x 50 mm or
  - 4 DIN trays 540 x 254 x 50 mm or
  - 4 ISO trays 485 x 344 x 50 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 461, W 530, D 600 mm

**E 702 Modular insert**

- 5 levels for mobile unit E 701/1
- For 2 DIN mesh trays
- H 160, W 530, D 560 mm



**E 703/1 Modular insert**

- Injector module for mobile unit E 701/1
- For 7 hollow instruments
- H 170, W 80, D 555 mm

**Supplied as standard:**

- 7 x E 362 Blanking screws
- 2 x E 447 Female adapters for male Luer locks
- 2 x E 449 Male adapters for female Luer locks
- 3 x E 495 Injector jets 2.5 x 90 mm
- 2 x E 496 Injector jets 4 x 120 mm
- 3 x Jets Ø 3 mm, length 24 mm (T-Nr. 2829560)
- 3 x E 980 Angle adapter

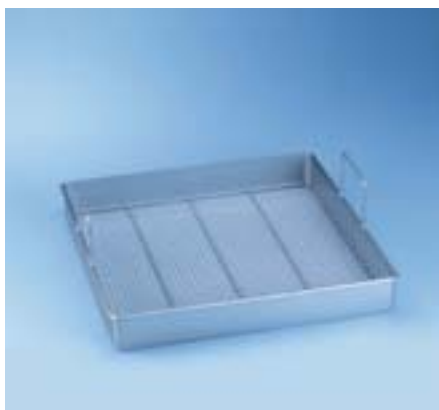


# Inserts for shoes, kidney dishes, bowls



## **E 730 Insert for 20 theatre shoes**

- For E 550 and E 775
- 20 holders 280 mm
- H 290, W 470, D 540 mm



## **E 484 Insert 1/1(empty)**

- To take various utensils
- Wire gauge: 1.4 mm
- Mesh spacing: 8 mm
- H 65 (150), W 470, D 480 mm



## **E 484 Insert with 4 long holders E 487**

- Can take 4 holders E 487 for 4 pairs of theatre shoes, height 280 mm
- Dimensions E 487  
H 280, W 464, D 10 mm



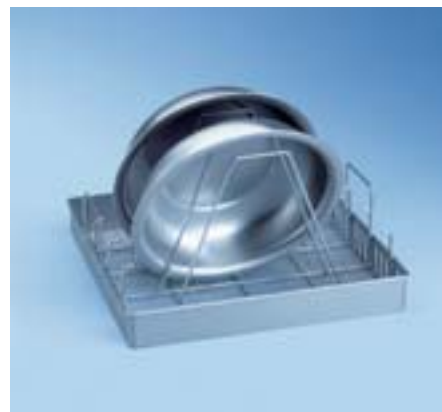
## **E 484 Insert with 11 holders E 489**

- Can take 9 universal holders E 489 for eg. insoles, height 60 mm
- Dimensions E 489  
H 60, W 464, D 10 mm



## **E 484 Insert with 4 holders E 485**

- Can take 9 holders E 485 for 9 kidney dishes



## **E 484 Insert with 4 holders E 486**

- Can take 4 holders E 486 for 4 bowls

# Mobile units for containers



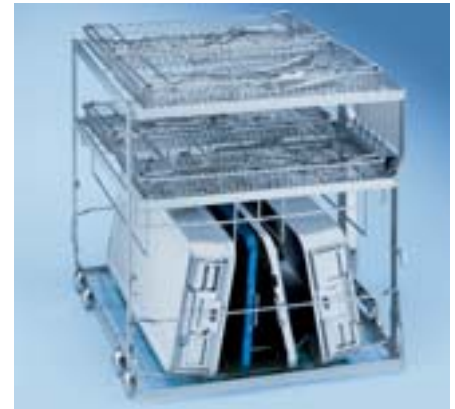
## **E 710/1 Mobile unit (empty)**

- For 4 DIN containers and lids
- Container size: 150 x 300 x 600 mm
- Lid size: 30 x 300 x 600 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 450, W 530, D 600 mm



## **E 711/1 Mobile unit (empty)**

- For 2 DIN containers and lids
- Container size: 300 x 300 x 600 mm
- Lid size: 30 x 300 x 600 mm
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 455, W 530, D 600 mm



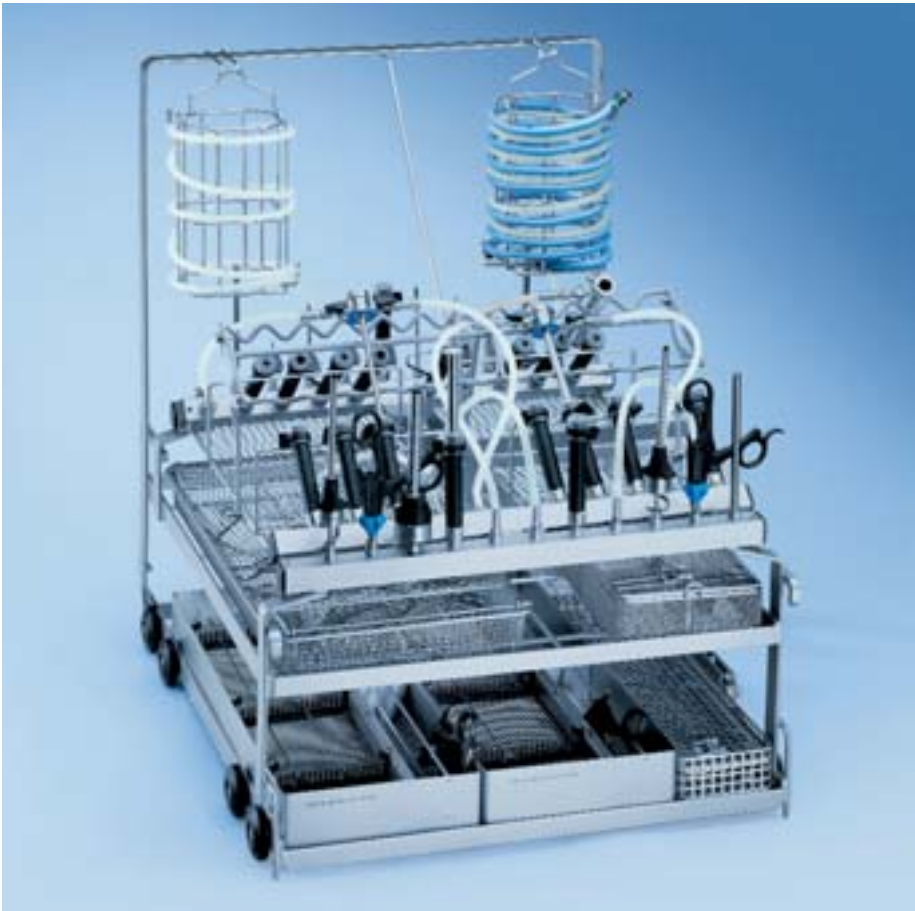
## **E 713 Mobile unit TA (empty)**

- For 2 DIN containers, 2 lids and 4 mesh trays on 3 levels
- 2 built-in spray arms
- Clearance from below  
container size: 150 x 300 x 600 mm  
lid size: 30 x 300 x 600 mm  
Level 2: H 120, W 488, D 546 mm  
Level 3: H 112, W 488, D 546 mm
- Connection for 5 hollow instruments
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 575, W 530, D 600 mm

### **Supplied as standard:**

- 5 x E 362 Blanking screws
- 2 x E 447 Female adapters for male Luer locks
- 3 x Jets Ø 3 mm, length 24 mm (T-Nr. 2829560)

# Mobile units for MIS instruments



## E 705/2 Mobile unit TA

- For MIS instruments up to max. 600 mm long
- Up to 42 hollow instruments can be accommodated (22 placed vertically and 20 placed at an angle)
- Clearance from below
  - Level 1: H 105, W 482, D 590 mm
  - Level 2: H 75, W 488, D 546 mm
  - Level 3: H 365, W 488, D 546 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 670, W 530, D 600 mm

## Supplied as standard:

- 3 x E 336 Injector sleeves MIBO for pipettes/MIS instruments
- 2 x E 362 Blanking screws
- 15 x E 442 Injector sleeves for MIS instruments, Ø 4–8 mm
- 5 x E 443 Injector sleeves for MIS-instruments, Ø 8–12 mm
- 1 x E 444 Insert/spiral rack for fibre optic cables or suction tubes
- 1 x E 445 12 Caps for injector sleeves/MIS instruments 6 mm
- 1 x E 446 12 Caps for injector sleeves/MIS instruments 10 mm
- 3 x E 447 Female adapters for male Luer locks
- 8 x E 448 Silicone tubes 300 mm long, 5 x 1.5 mm
- 5 x E 449 Male adapters for female Luer locks
- 1 x E 451 Insert 1/6 mesh tray, H 55, W 150, D 225 mm
- 3 x E 452 Injector jets 2.5 x 60 mm
- 8 x E 453 Injector jets 4.0 x 110 mm with holder
- 6 x E 454 Injector jets for trocar sleeves 10–15 mm

- 10 x E 456 Spring clips for MIS instruments
- 3 x E 464 Holders for injector jets E 454
- 2 x E 472 Clamps for injector jets, Ø 4.0 mm
- 2 m Silicone tube, Ø 5 m, T.-Nr. 4822890

For further accessories such as injector sleeves see page 54

# Mobile units for MIS instruments/modules



## **E 774/1 Mobile unit TA**

- Modular system for approx. 2–3 MIS-OP-Sets
- For hollow instruments in 4 modular inserts with integrated jets/adapters
- Loading options:
  - E 903/1 Modular insert for short MIS instruments/Urology
  - E 905/1 Modular insert for short MIS instruments
  - E 906/1 Modular insert for long MIS instruments
  - 3x E 444 Spiral racks for fibre optic cables and suction tubes
  - 1x E 460 Insert for rigid fibre optics and
  - 1x E 457 Insert for separable MIS instruments or 1x E 142 DIN mesh tray
- Connection for hot-air drying unit
- External dimensions: 605 x 530 x 600 mm (HWD)

## **Supplied as standard:**

- 4 x E 447 Female adapters
- 6 x E 362 Blanking screws

Modules are described on page 51

# Mobile units for micro instruments



## E 729 Mobile unit TA

- For 4–5 OP-Sets
- Mobile unit with 3 levels for micro instruments and accessories
- 2 levels to take 4 DIN mesh trays
- 1 level with 16 jets (each with tube and male Luer lock adapters) and 30 jets (15 male and 15 female Luer lock adapters)
- Connection option for E 478 to water intake
- Clearance from below: 124/114.5/160 mm
- H 471, W 530, D 600 mm

## Supplied as standard:

- 1 x E 476
- 1 x E 477
- 8 connectors female Luer lock/female Luer lock
- 8 connectors male Luer lock/male Luer lock

Geuder AG recommends that its current range of instruments be cleaned and disinfected in Miele washer-disinfectors.

**Geuder**<sup>®</sup>  
Precision made in Germany



## E 478 Holder

- For 4 narrow lumen cannulae (Sautter)



## FP

- Filter plate for E 478
- Porosity 2
- Diameter 30 mm
- 20 pieces per bag

# Mobile units for anaesthetic instruments



## **E 715/1 Mobile unit**

- For approx. 4 AN-Sets / 12 breathing tubes up to 1.5 m long and various accessories
- 12 Jets with spring supports
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition (without magnets ML)
- H 645, W 530, D 600 mm

## **Supplied as standard:**

- 1 x E 430 Insert 1/3 mesh tray, H 40, W 150, D 445 mm
- 1 x E 431 Injector jet for bellows, 8 x 193 mm
- 1 x E 432 Holder for 3 or 4 breathing tubes (supplied loose)
- 3 x E 433 Holders for 3 or 4 silicone breathing tubes
- 1 x E 434 Holder for 3 or 4 paediatric breathing tubes
- 6 x E 466 Injector jets for breathing bags, 8 x 333 mm
- 15 x E 496 Injector jets 4 x 120 mm
- 1 x A 3 Cover net 1/4, 206 x 206 mm



# Washer-disinfectors PG 8527 and PG 8528

## New added value for instrument processing in the CSSD

Miele Professional has, for over four decades, been setting innovative milestones for the efficient and reliable machine processing of instruments for hospitals and clinics. Now, with the PG 85 generation of machines, Miele has set brand new standards. The new washer-disinfectors PG 8527 and PG 8528 offer great added value for central and decentralised processing of large volumes of instruments: greater cleaning capacity, greater process reliability and greater economy.

## Perfect quality and patent pending innovations – typical Miele

**PERFECT TOUCH CONTROL:** Simple, safe operation via the glass display incorporated flush with the surface of the machine. Modular controls with flexible enhancement options to accommodate future requirements. Simple integration of the Miele remote service system.

**PERFECT VISION:** Optional full glass lift-up doors and integrated wash cabinet illumination give an optimum view into the wash cabinet for an additional visual control of the wash process.

**PERFECT SPEED SENSOR:** A sensor strip outside the wash chamber monitors the pre-defined rotation speed and ensures maximum performance reliability of all spray arms.

**PERFECT PURE SENSOR:** Contact-free measuring of conductivity and monitoring of wash liquor. Unique process with extremely low tolerance levels to ensure residue-free rinsing.

**PERFECT FLOW SENSOR:** Measuring system integrated as standard for precise control of the dosage according to temperature and viscosity.

**PERFECT HEPA DRYING:** Optimised air flow with HEPA high temperature filter positioned directly in front of the wash cabinet for optimum hygiene when drying.

Output comparison	Width/depth	Doors	Wash cabinet Dimensions H/W/D Wash cabinet volume	Load capacity
G 7823 / G 7824	900/750 mm	Drop-down doors	510/530/620 mm 168 l	8 DIN mesh trays
G 7825 / G 7826	900/750 mm	Drop-down doors	683/541/610 mm 225 l	10 DIN mesh trays
<b>PG 8527 / PG 8528</b>	<b>1150/870 mm</b>	<b>Lift-up doors</b>	<b>675/650/800 mm 351 l</b>	<b>15 DIN mesh trays</b>

# Versions and capacity



## Versions

- PG 8527: Front loading machine with lift-up door
- PG 8528: Through-feed barrier machine with lift-up doors for separation of clean/unclean sides

## Load capacity

- 15 DIN mesh trays
- or 6 DIN containers 150 x 300 x 600 mm
- or 4 DIN containers 300 x 300 x 600 mm
- or 7 AN-Sets
- or 3 MIS-Sets

## Construction

- Can be installed singly or in a row side-by-side
- Width 1150 mm
- Modular concept, can be set up to suit different applications
- Single chamber system for cleaning, disinfection and drying
- Service friendly construction
- Heating element outside wash cabinet
- Low heat and noise emissions thanks to double insulation



## Miele quality – Made in Germany

For decades, Miele washer-disinfectors have been an indispensable part of quality assurance in hospitals, clinics and CSSDs. Every part of them demonstrates uncompromising quality and offers the user the highest levels of hygiene, reliability and economy.

For technical data see pages 70/71

# Standard features



Unclean side



Clean side

## Cleaning technology

- Hygienic freshwater system with water change after each cleaning phase
- Cleaning, disinfection and drying in a closed system
- Hygienic stainless steel wash cabinet with rounded edges and corners and angled ceiling
- 2 spray arms in the wash cabinet for thorough surface cleaning of instruments
- Spray arms with high energy performance to clean surfaces
- Minimal residues and best possible cleaning results
- Direct connection of mobile unit to water inlet for maximum use of wash liquor
- Injector system for thorough cleaning of hollow instruments

## Standard features

- 2 powerful circulation pumps
- Triple filter system with flat filter, coarse filter and micro-fine filter
- Filter system in hoses
- Flowmeter counter for control of water intake
- 2 drain pumps or 1 drain valve

## Dispenser systems

- 2 bellows pumps for liquid cleaning agents and neutralisation agents
- 3 further pumps available as optional extras

## Drying unit

- Powerful drying system with HEPA filter EU 13

## Controls

- Freely programmable PROFITRONIC + controls
- 64 programme places
  - 16 standard cleaning and disinfection programmes
  - 17 service programmes
  - 31 freely programmable places
- User guidance with clear text display
- Indicators for operation and programming dialogue, programme running time, error messages and programme sequence
- Programming of new programmes directly into the machines via PC or laptop using the optical interface

## Interfaces

- 4 serial interfaces RS 232 for process documentation
- Optical interface for customer service and servicing work
- 1 Ethernet interface

## Safety features

- Electrical door lock
- Programme failure check
- Peak load cut-out
- Audible and visual signal at programme end
- 2 sensors for temperature monitoring and control
- Sensor port for easy positioning of probes in the wash cabinet for validation
- Sensors in wash cabinet and magnetic strip for automatic mobile unit recognition and positioning
- Dispensing volume control
- Spray arm sensors

## Load recognition

- Sensors for automatic load recognition and allocation of programme

## Multipoint

- For a printer and/or scanner connection

# Operation and function reliability

## Perfect Miele



### PROFITRONIC<sup>+</sup> controls

The new PROFITRONIC<sup>+</sup> controls have 64 programme places. 16 places are allocated to standard cleaning and disinfecting programmes, including Miele's innovative OXIVARIO, OXIVARIO PLUS and ORTHOVARIO. 17 places are allocated to service programmes and 31 places are free for individual programming. Programming can be carried out direct onto the machine or via a laptop or PC. All process parameters are continuously monitored by the controls.

### PERFECT TOUCH CONTROL

#### PERFECT TOUCH display

The display is set flush with the front of the machine in a glass panel. It is very easy to use and to wipe clean with suitable disinfecting agents to ensure optimum levels of hygiene. All operating stages are shown in clear text in the graphic display in a choice of 15 different languages. The display text for eg. current temperature, time left, AO value and required protocol data can also be freely defined by the user.

The controls are put together as a modular Can-BUS system and can easily be expanded by additional modules. An optical interface for servicing and serial interfaces for IT enhancements are included as standard and allow various communications processes to run simultaneously. The controls support the Miele remote service system.

Highly flexible and future-proof programme control; A0-value controlled temperature holding time; simple, reliable operation via a limited number of buttons

# Function reliability and hygiene – perfect Miele

## PERFECT VISION

### Optional full glass lift up doors and wash cabinet illumination

Easy to clean, full glass lift-up doors allow the user to view and visually monitor the wash process. The lift-up door opens automatically at the end of the programme. In addition, the models with glass doors have internal illumination via 4 LCD lights. The duration of the illumination is programmable.



### Wash cabinet and filter system

The wash cabinet is made of high quality stainless steel (option of stainless steel quality 316 L or 1.4404) with an angled ceiling and rounded edges and corners so that residual water can flow away as easily as possible, minimising the amount that must be pumped away.

A triple filter combination consisting of a flat filter, a coarse filter and a micro fine filter not only ensures a high level of process reliability but also easy cleaning of the wash cabinet. The inlet hoses are also fitted with a filtration system. The heating elements are located outside the wash cabinet for optimum protection. They are through-flow heaters and can be heated either by electricity or steam.

Constant visual contact and monitoring of the wash process; material quality, design and features for optimum wash results; residual water removed in compliance with DVGW and RKI; Miele innovation: patented leak protection

# Everything under control

## Perfect Miele

### PERFECT SPEED SENSOR

#### Spray arm sensor

The PG 85 washer-disinfectors are fitted as standard with the special PERFECT SPEED SENSOR spray arm control unit. The display indicates whether the spray arms in the wash cabinet and the mobile units are turning correctly. A sensor strip outside the wash cabinet monitors the rotation of all the spray arms. If the rotation falls below a pre-defined range, eg. because of a build up of foam, the programme will be interrupted or an error message will appear in the display. Deviations can also be automatically registered in the process documentation, ensuring a high level of process safety and preventing loading errors.



#### Automatic mobile unit recognition

A further safety benefit from Miele is offered by the automatic mobile unit recognition system. A sensor in the wash cabinet scans a magnetic strip on the mobile unit and automatically allocates the correct programme. This eliminates the risk of user error.

Maximum function control of all spray arms; reliable allocation of programme according to mobile unit



# Reliability, efficiency and hygiene – Perfect Miele

## PERFECT PURE SENSOR

### PERFECT PURE SENSOR

Residues in the wash liquor can compromise thorough cleaning. Likewise, residual alkali in the rinse solution, for example from ophthalmic instruments, can lead to undesirable side effects next time the machine is used. In the new PG 85 series machines the conductivity level of the wash liquor is measured and monitored by electro-magnetic impulses in a maintenance-free system. This unique process works with extremely narrow tolerances in a range of 0–40  $\mu\text{S}/\text{cm}$  and 0.4–100  $\text{mS}/\text{cm}$ . If the conductivity level pre-defined by the user is not reached in the final rinse, further rinses are automatically carried out.

The results can be shown in the display and subsequently documented. Recording the conductivity level throughout the process offers another opportunity to verify the exact replication of the validated process.

## PERFECT FLOW SENSOR

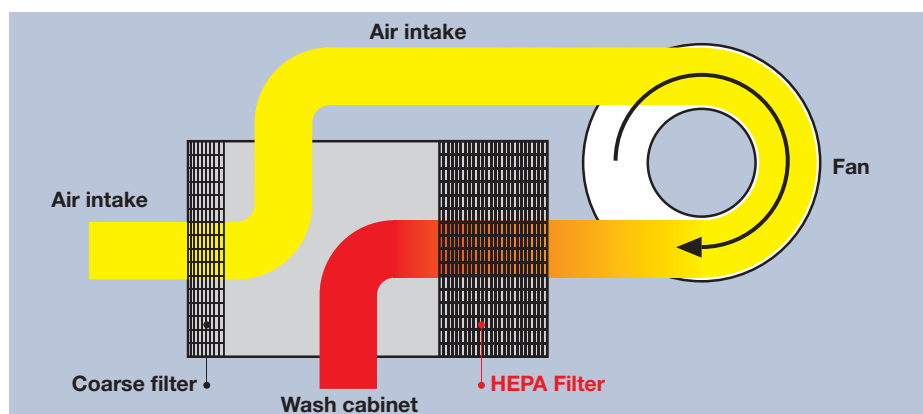
### PERFECT FLOW SENSOR

The current standard DIN EN ISO 15883 stipulates that the dispensing of liquid media should be independently monitored. The new dispensing volume control from Miele, PERFECT FLOW SENSOR, offers far greater reliability than traditional measuring systems. The measuring system is included as standard and allows very precise control of the dosage. Dosage tolerances can be defined by the user. The system works by ultrasound and, in contrast to most measuring systems with flow wheels, is not affected by temperature or viscosity. If tolerances are exceeded an error message is displayed or the programme is terminated.

## PERFECT HEPA DRYING

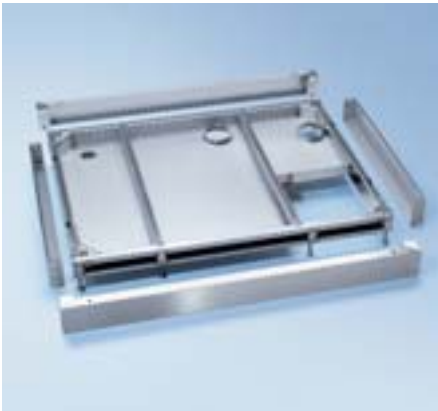
### PERFECT HEPA DRYING

Miele is also setting new hygiene standards for the drying phase. A class EU 13 HEPA high temperature filter in the front of the wash cabinet prevents undesirable particles from entering the heater, fan or silencer, so the air in the wash cabinet is exceptionally clean. This has the added benefit of extending service intervals.



# Modular machines

## Optional extras



### Plinth/drip tray

To install the appliance without onsite plinth

- Integrated drip tray
- Cut-outs for service connections
- Mobile plinth for PG 8527 allows machine to be easily moved away from the wall for service access

### Wash cabinet

- Stainless steel quality 316 L (1.4404)
- Boiler for demineralised water
- Conductivity measuring module
- Full glass door(s) and wash cabinet illumination

### Water softener

- Large capacity water softener (external)

### Dispenser pumps

- Up to 3 additional internal dispenser pumps including dosage volume control

### Drainage system

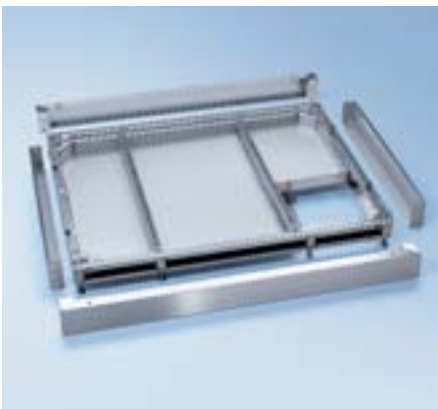
- 2 drain pumps

### Steam condenser

- Integrated steam condenser in form of heat exchanger. No water consumption when connected to on-site cold water circulation system.

### Drying system

- Steam or electrically heated hot-air drying system
- Maintenance-free three phase motor with side channel connection
- Temperature settings from 60–115°C
- Freely adjustable time settings from 1–240 min
- Pre-filter class EU 4, filtration rate >95%, filter life 200 h
- Particle filter EU 13, filtration rate >99.992%, filter life 500 h





Unclean side



Clean side

#### External casing

- Stainless steel casing with lockable service panels for enclosing the steam condenser or drying unit
- Vents on the unclean side
- Any facing above the unit to be provided on-site
- Integratable 8-pin printer for reporting process data

#### Scanner connection

- Device and holders for connection of a scanner

#### Mieltransfer MF-27/28

- Transfer trolley with 4 lockable wheels for easy handling of mobile units

#### Transport system

- Automatic loading and unloading system for PG 8528
- Loading system for 1, 2 or 3 mobile units
- Unloading system for 1 or 2 mobile units

The comprehensive range of standard features and optional extras creates versatile solutions to meet individual needs

# Mobile units with 2–5 levels



**E 975/1 Mobile unit (empty)**

- For inserts on 2 levels
- Integrated spray arm
- Clearance from below:  
Level 1 = H 297, W 592, D 780 mm  
Level 2 = H 290, W 592, D 780 mm
- Magnetic strip for automatic mobile unit recognition
- H 427, W 640, D 790 mm



**E 935/1 Mobile unit (empty)**

- For inserts on 3 levels
- 2 built-in spray arms
- Clearance from below:  
Level 1 = H 202, W 590, D 780 mm  
Level 2 = H 202, W 590, D 780 mm  
Level 3 = H 132, W 590, D 780 mm
- Magnetic strip for automatic mobile unit recognition
- H 524, W 640, D 790 mm



**E 900-4/1 Mobile unit (empty)**

- For inserts on 4 levels
- 3 built-in spray arms
- Clearance from below:  
Level 1–3: H 112.5, W 593, D 780 m  
Level 4: H 114, W 593, D 780 mm
- Magnetic strip for automatic mobile unit recognition
- H 557, W 640, D 790 mm



**E 900-5/1 Mobile unit (empty)**

- For inserts on 5 levels
- 4 built-in spray arms
- Clearance from below:  
Level 1–4: H 80, W 593, D 780 mm  
Level 5: H 73, W 593, D 780 mm
- Magnetic strip for automatic mobile unit recognition
- H 605, W 640, D 790 mm



**E 901/1 Mobile unit (empty)**

- For mesh trays/bowls and 8 hollow instruments
- 3 built-in spray arms
- 4 levels
- Clearance from below:  
Level 1–3 = H 80, W 593, D 780 mm  
Level 4 = H 210, W 520, D 780 mm
- Load capacity Level 1–3:  
3 DIN trays (485 x 254 x 50 mm) or  
3 DIN trays (540 x 254 x 50 mm) or  
2 ISO trays (485 x 344 x 50 mm)
- Load capacity Level 4:  
2 DIN trays (540 x 254 x 50 mm) or  
3 DIN trays (485 x 254 x 50 mm) or  
various OP bowls, injector jets for hollow instruments
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 590, W 640, D 790 mm

**Supplied as standard:**

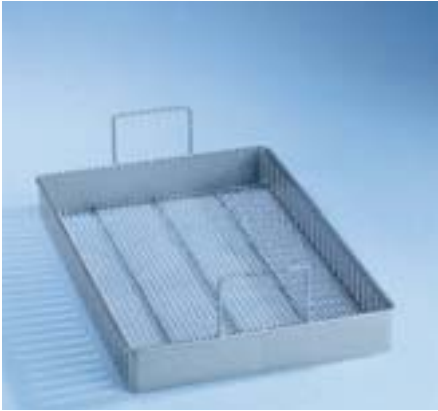
- 8 x E 362 Blanking screws
- 2 x E 447 Female adapters, for male Luer locks
- 2 x E 449 Male adapters, for female Luer locks
- 4 x Injector jets Ø 4 mm, length 110 mm (M-Nr. 4175030)
- 3 x Injector jets Ø 4 mm, length 120 mm with spring clips (M-Nr. 4398951)
- 3 x E 980 Angle adapters



**E 980 Angle adapter**

- To enable accommodation of long hollow instruments
- Various Luer lock adapters or jets for hollow instruments can be screwed into position

# Inserts for shoes



## **E 984 Insert 1/2**

- To take various utensils
- H 65 (150), W 371, D 572 mm



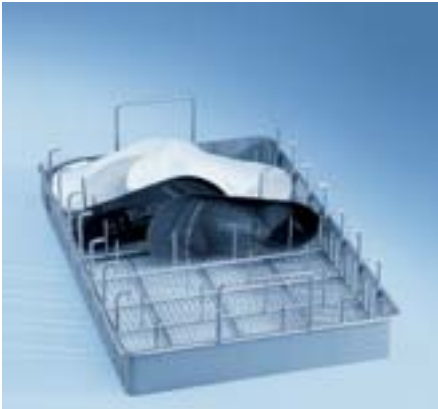
## **E 984 Insert with 5 holders E 987**

- To take 5 holders **E 987** for 15 theatre shoes up to size 44



## **E 984 Insert with 3 holders E 993**

- To take 3 holders **E 993** for 9 theatre shoes up to size 48



## **E 984 Insert with 7 holders E 989**

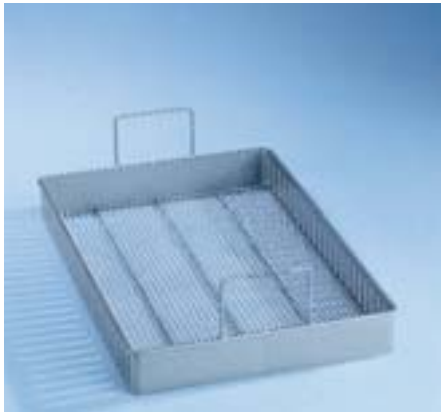
- To take 7 universal holders **E 989** for 8 insoles



## **E 930 Insert for theatre shoes**

- With 36 holders 280 mm for 36 theatre shoes up to size 44
- H 289, W 586, D 752 mm
- For insert **E 975**

# Inserts for kidney dishes, bowls



**E 984 Insert 1/2**

- To take various utensils
- H 65 (150), W 371, D 572 mm



**E 984 Insert with 7 holders E 985**

- To take 7 holders **E 985** for 12 kidney dishes



**E 984 Insert 1/2 (empty)**

- To take 5 holders **E 986** for 5 bowls

# Mobile units for containers



**E 910-3 Mobile unit (empty)**

- For 6 DIN containers and lids
- Container size: 150 x 300 x 600 mm
- Magnetic strip for automatic mobile unit recognition
- H 455, W 640, D 790 mm



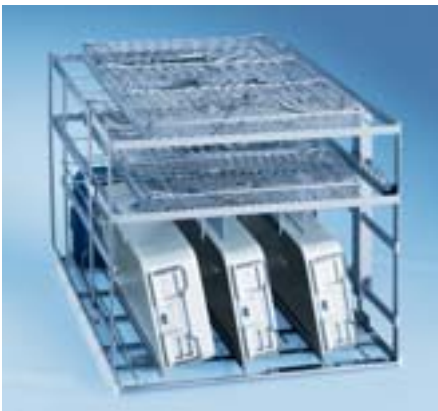
**E 911-3 Mobile unit (empty)**

- For 4 DIN-containers and lids
- Container size: 300 x 300 x 600 mm
- Magnetic strip for automatic mobile unit recognition
- H 455, W 640, D 790 mm



**E 912-3 Mobile unit (empty)**

- For 4 ISO containers and lids
- Container size: 180 x 400 x 600 mm
- Magnetic strip for automatic mobile unit recognition
- H 455, W 640, D 790 mm



**E 913-3 Mobile unit (empty)**

- Mobile unit for containers/lids/mesh trays on 3 levels
- Level 1 for 3 DIN containers  
150 x 300 x 600 mm with lid
- Level 2+3 for loading height 103,  
W 590, D 730 mm
- 2 built-in spray arms
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 574, W 640, D 790 mm



**E 934 Mobile unit (empty)**

- For orthopaedic containers on 4 levels
- Clearance from below:
  - Level 1  
H 90 or 180 (without Level 2)
  - Level 2  
H 90, W 593, D 780 mm
  - Level 3  
H 160, W 593, D 780 mm
  - Level 4  
H 180, W 593, D 780 mm

- Level 2 can be removed to give a clearance of 180 mm on Level 1
- Spray arms located under levels 3 and 4
- Magnetic strip for mobile unit recognition
- H 500, W 640, D 790 mm

# Mobile units and modules for orthopaedic instruments



## **E 941 Mobile unit TA (empty)**

- For modules on 2 levels
- Up to 2 modules can be used per level, depending on the size of the items to be processed
- Water and air inlets connected to the basket direct, and to the modules via an adapter
- Clearance from below:
  - Level 1 (without module above)  
H 609, W 558, D 352 mm
  - Level 1 (with module above)  
H 317, W 558, D 352 mm
  - Level 2 H 245, W 558, D 352 mm
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 421, W 619, D 790 mm

## **Note**

The ORTHOVARIO process is recommended by Aesculap for its motor systems



## **E 948 Module for E 941**

- For orthopaedic theatre instruments
- To take mesh tray E 142 (not supplied as standard)
- Equipped with 28 jets
- Loading dimensions:
  - H 125, W 520, D 310 mm
  - H 230, W 558, D 352 mm



## **E 949 Injector module for 941**

- For intramedullary nails/intramedullary reamers
- 8 holders for intramedullary nails (assembled) and 6 extensions sleeves for intramedullary reamers (supplied loose)
- H 115, W 558, D 352 mm



## **E 955 Mesh tray insert**

- For reamer sleeves diameter 3–15 mm
- H 85, W 221, D 156 mm

# Mobile units for MIS instruments



## E 902/1 Mobile unit

- Modular system for up to 3 MIS OP-sets
- Up to 26 hollow instruments can be accommodated in 6 insert modules with integrated jets/adapters
- Upper and lower level free to take mesh trays, eg. E 142 Loading dimensions above: H 65, W 593, D 780 mm  
Loading dimensions below: H 53, W 500, D 780 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 620, W 640, D 790 mm

## Supplied as standard:

- 3 x E 905/1 Modular inserts for short MIS instruments
- 3 x E 906/1 Modular inserts for long MIS instruments
- 3 x E 444 Insert/spiral racks for fibre optic cables/suction tubes
- 2 x E 445 12 Caps for injector sleeves/ MIS instruments Ø 6 mm
- 1 x E 446 12 Caps for injector sleeves/ MIS instruments Ø 10 mm
- 2 m Silicone tube, Ø 5 mm, T-Nr. 4822830
- 2 x E 362 Blanking screws



## E 909 Basket TA

- Modular system for 1–2 MIS-Sets
- 26 connectors for hollow instruments in 2 inserts with integrated jets/adapters
- Level 1–3 free to take mesh trays, eg. E 142
- Magnetic strip for automatic mobile unit recognition
- Clearance from below:  
Level 1: H 80, W 589, D 755 mm  
Level 2–3: H 80, W 599, D 780 mm
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 698, W 640, D 790 mm



## E 908/1 Insert

- for separable MIS instruments/ or optics
- Mesh spacing 8 x 1 mm (base), solid sides
  - Internal dividers with 4 supports
  - Hooks to slot into E 906/1
  - H 36, W 130, D 460 mm

## E 907/1 Insert/mesh tray

- with lid for small items
- Mesh spacing 3 x 1 mm
  - Hooks to slot into E 905
  - H 48, W 129, D 170 mm

# Modules



## E 903/1 Modular insert

- For TUR sets (transurethral resection)
- Accommodates up to 10 hollow instruments
- H 40, W 461, D 510 mm

### Supplied as standard:

- 3 x E 442 Injector sleeves 121 mm for MIS instruments Ø 4–8 mm
- 1 x E 444 Insert/spiral rack for fibre optic cables/suction tubes
- 1 x E 447 Female adapter for male Luer locks
- 4 x E 448 Silicone tubes 300 mm long, 5 x 1.5 mm
- 3 x E 453 Injector jets 4.0 x 110 mm with clamps
- 1 x E 454 Injector jet for trocar sleeves 10–15 mm
- 3 x E 467 Injector sleeves 205 mm for MIS instruments/forceps
- 3 x E 469 Injector sleeves 300 mm for MIS instruments/urology
- 1 x E 907/1 Insert/mesh tray with lid for small items
- 2 m Silicone tube DM 5 mm M-Nr. 4822830
- 1 plastic support



## E 905/1 Modular insert

- For short MIS instruments
- Accommodates up to 16 hollow instruments
- Sectioned for arthroscopes, laparoscopes etc
- H 40, W 461, D 510 mm

### Supplied as standard:

- 1 x E 336 Injector sleeve MIBO for pipettes/MIS instruments
- 2 x E 362 Blanking screws
- 1 x E 442 Injector sleeve for MIS instruments Ø 4–8 mm
- 2 x E 447 Female adapters for male Luer locks
- 4 x E 448 Tubes with Luer lock adapters
- 2 x E 449 Male adapters for female Luer locks
- 4 x E 452 Injector jets 2.5 x 60 mm
- 3 x E 453 Injector jets 4.0 x 110 mm with clamps
- 3 x E 454 Injector jets for trocar sleeves 10–15 mm
- 1 x E 464 Holder for injector jets E 454
- 1 x E 907/1 Insert/mesh tray with lid for small items
- 1 x E 472 Spring clip for injector jets Ø 4.0 mm



## E 906/1 Modular insert

- For long MIS instruments
- Accommodates up to 10 hollow instruments
- Sectioned for arthroscopes, laparoscopes etc
- H 40, W 461, D 510 mm

### Supplied as standard:

- 2 x E 362 Blanking screws
- 5 x E 442 Injector sleeves for MIS instruments Ø 4–8 mm
- 3 x E 443 Injector sleeves for MIS instruments Ø 8–12 mm
- 2 x E 448 Tubes with Luer lock adapters
- 1 x E 454 Injector jet for trocar sleeves 10–15 mm
- 2 x E 456 Spring clips for MIS instruments
- 1 x E 464 Holder for injector jets E 454
- 1 x E 908/1 Insert for separable MIS instruments

### Note

These modules can also be used in E 574/1 (for G 7823/G 7824) and E 774/1 (for G 7825/G 7826).

# Mobile unit for micro instruments



## E 929/1 Mobile unit TA

- 3 loading levels for approx. 6 OP-sets
- Usable height:
  - Level 1: 94 mm
  - Level 2: 100 mm
  - Level 3: 287 mm
- Capacity 6 DIN mesh trays
- 45 Jets on the right hand side (23 male and 22 female Luer lock adapters)
- 28 Jets on the left hand side (horizontal), each with tube and male Luer lock adapters
- Connection option for 2 x E 478 on inlet hose
- Connection for hot air drying unit
- Magnetic strip for automatic mobile unit recognition
- External dimensions: H 492, W 640, D 790 mm

## Supplied as standard:

- 14 connectors Luer-lock female/Luer-lock female
- 14 connectors Luer-lock female/Luer male
- 2 x E 476 holders
- 1 x E 477 stopper

Geuder AG recommends that its current range of instruments be cleaned and disinfected in Miele washer-disinfectors.

**Geuder**<sup>®</sup>  
Precision made in Germany



## E 478 Holder

- For 4 narrow lumen cannulae (Sautter)



## FP

- Filter plate for E 478
- Porosity 2
- Diameter 30 mm
- 20 pieces per bag

For other MIS accessories see page 55

# Mobile units for anaesthetic instruments



## **E 915/3 Mobile unit**

- For approx. 7 AN sets or 20 breathing tubes up to 1.5 m long and various accessories
- Injector system
- Connection for hot-air drying unit
- Magnetic strip for automatic mobile unit recognition
- H 637, W 640, D 790 mm

## **Supplied as standard:**

- 1 x E 142 Insert 1/2, DIN mesh tray, H 45/55, W 255, D 480 mm
- 10 x E 466 Injector jets for breathing bags, 8 x 333 mm
- 18 x E 496 Injector jets 4 x 120 mm
- 1 x holder for 5 bellows breathing tubes (supplied loose)
- 4 x holders for 5 silicone breathing tubes
- 1 x holder for 5 paediatric breathing tubes (supplied loose)
- 3 x E 495 Injector jets 2.5 x 90 mm (supplied loose)
- 1 x A2 Cover net 1/2, 216 x 456 mm

# Accessories



## E 469 Injector sleeve ①

- For MIS instruments/urology
- Length 300 mm, Ø 11 mm
- Cap opening Ø 6 mm (M.-Nr. 4174960)
- Clip (M.-Nr. 4174850)

## E 467 Injector sleeve ②

- For MIS instruments/clip forceps
- Length 205 mm, Ø 11 mm

## E 336 Injector sleeve MIBO ③

- Length 121 mm, Ø 11 mm

## E 442 Injector sleeve ④

- For MIS instruments with 4–8 mm Ø, screw fitting
- Length 121 mm, Ø 11 mm
- Cap opening Ø 6 mm (M.-Nr. 4174960)
- Clip (M.-Nr. 4174850)

## E 443 Injector sleeve ⑤

- For MIS instruments with 8–8.5 mm Ø
- Length 121 mm, Ø 11 mm
- Cap opening Ø 10 mm (M.-Nr. 4 174 970)
- Clip (M.-Nr. 4 174 850)



## E 445 Caps

- 12 caps for injector sleeves
- Opening 6 mm

## E 446 Caps

- 12 caps for injector sleeves
- Opening 10 mm



## E 456 Clip ①

- For MIS instruments

## E 475 Support ②

- For MIS insert
- To stabilise the injector sleeves (M.-Nr. 4692430)



## E 447 Female adapters ①

- For male Luer lock, screw fitting for E 450/1, O 176, O 183

## E 449 Male adapters, without support\* ②

- For female Luer lock, screw fitting for E 450/1, O 176, O 183

## E 452 Injector jets ③

- Length 60 mm, Ø 2.5 mm, screw fitting, for injector units

## E 453 Injector jets ④

- Clamps
- 110 mm long, Ø 4 mm, screw fitting, for injector units

## E 448 Silicone tube ⑤

- Luer lock adapter, male
- Length 300 mm, Ø 5 mm
- Jet with 8 x 1 mm thread

\* The adapter with support is available from Miele under Mat.-Nr. 4 224 230.



## E 464 Holder

- For injector jets E 454 13 x 65 mm
- Spring to adjust height (M.-Nr. 4692440)

## E 454 Injector jets

- For trocar sleeves with 10–15 mm Ø, 8 x 150 mm
- Spring to adjust height (Mat.-Nr. 4692430)



## E 471 Spring clip

- For injector jets Ø 2.5 mm, for E 452

## E 472 Spring clip

- For injector jets Ø 4.0 mm, for E 351, E 453



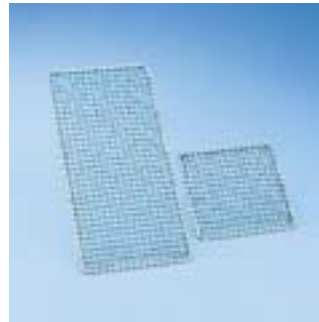
**E 792**  
Connector for male Luer lock with silicone tube

**E 790**  
Connector female Luer lock/-female Luer lock

**E 791**  
Connector female Luer lock/male Luer lock

**Adapters can be purchased individually:**

- 4-piece pack E 790 female Luer lock/female Luer lock
- 4-piece pack E 791 female Luer lock/male Luer lock
- 4-piece pack E 792 male Luer lock with with silicone tube (160 mm long)



**A2 Cover net 1/2**  
(illus. left)  
• 216 x 456 mm  
• Plastic coated metal frame with synthetic net  
• For inserts 1/2



**A6 Cover net 1/2**  
• 215 x 460 mm  
• Stainless steel frame with polypropylene net (extremely tough and durable)  
• eg. for mesh tray E 142

**A3 Cover net 1/4**  
(illus. right)  
• 206 x 206 mm  
• Plastic coated metal frame with synthetic net  
• For inserts 1/4



**E 142 Insert 1/2**  
• DIN mesh tray  
• 1 mm wire gauge  
• 5 mm mesh spacing  
• 5 mm frame  
• 2 hinged handles  
• Max. load 10 kg  
• H 45/55, W 255, D 480 mm



**E 476 Holders**  
• For use in mesh trays with 5 mm mesh spacing (eg. E 142)  
• 50 pieces per bag  
• For instruments with 4–8 mm Ø



**E 479 Holders**  
• For use in mesh trays with 5 mm mesh spacing (eg. E 142)  
• 50 pieces per bag  
• For instruments with up to 4 mm Ø



**E 477 Stoppers**  
• For use in mesh trays with 5 mm mesh spacing (eg. E 142)  
• 20 pieces per bag

Picture: Insert E 142 with holders E 476 and stoppers E 477

# Cleaning processes for every application



## Thorough cleaning is essential for safe disinfection and sterilisation.

Cleaning must be standardised to a very high level and carried out by high performance processes. Thermal disinfection is preferable to chemo-thermal or chemical disinfection procedures.

Even if there is uncertainty about permissible levels of protein residue on instruments, the very least that is expected is that instruments should be visually completely clean. To achieve this, even specially designed processes and wash technologies can meet their match in certain situations – proof that higher performance levels are needed for the machine processing of instruments.

Miele Professional has examined the specific cleaning needs of hospitals and clinics and created innovative cleaning processes to meet their requirements

1994  
**VARIOTD**

2004  
**OXIVARIO** **OXIVARIO PLUS**

2005  
**ORTHOVARIO**

Please contact Miele for comprehensive information on Miele's cleaning processes.

The **VARIO TD** programme has become the standard programme for routine cleaning and disinfection of instruments thanks to its successful removal of protein soiling (blood, secretions). Thermal disinfection is carried out at  $>90^{\circ}\text{C}$  with a holding time of 5 minutes. For optimum protection of instruments, it is recommended that the final rinse should be carried out with demineralised water without rinse aid. A different programme version with modified parameters, Vario TD-AN, is available for thermally stable anaesthetics instruments.

- Intensive cleaning at non-denaturing temperatures
- Disinfection in accordance with EN ISO 15883
- Does not damage materials



With the OXIVARIO process available on washer-disinfectors G 7835 CD and G 7836 CD, Miele offers a high performance processing method that gives exceptional cleaning results even for critical instruments.

The problem of adequate cleaning for surgical instruments is becoming increasingly apparent. The performance limits of previous processes are highlighted by disposal intervals that are often too long, in the worst cases by instruments from the previous day, or A & E instruments from the weekend. The use of antiseptics in the theatre can also lead to unsatisfactory cleaning results. For many years it has been recommended that coagulation instruments/HF instruments should be treated in the theatre with a hydrogen peroxide solution. The newly developed procedure eliminates the need for pre-handling, which it is difficult to standardise, and subsequent machine processing.

The patent pending OXIVARIO process, with its much higher level of alkaline cleaning, is designed for surgical instruments for which the cleaning power of previous processes was insufficient, as well as for those which according to RKI guidelines are classed as critical medical products and require a higher level of protein removal.

## **OXIVARIO**

Special programme for critical instruments with special applications (as defined by RKI guidelines) and the cleaning of, for example, traumatology and high frequency surgery instruments.

- Excellent cleaning and removal of organic soiling
- Saves time by eliminating need for pre- and post-handling



## **Processing by Oxivario PLUS: decontamination of prions**

In 2006 it was proven that Miele's OXIVARIO Plus process, which offers exceptionally high performance for washer-disinfectors, could successfully decontaminate surfaces of prions (the cause of CJD). This result was confirmed by further in vivo research carried out by the Institute for Neuropathology at the University of Munich, meaning that the effectiveness of the process can be declared in accordance with the criteria of the Robert-Koch-Institute. Instrument cleaning must be 100% reliable to prevent iatrogenic transfer of CJD.

For this reason, the OXIVARIO PLUS process was developed as an even more intensive version of the OXIVARIO process to break down and render soluble proteins that cannot be dissolved by chemicals, eg. denatured proteins. The OXIVARIO PLUS process lasts longer and uses a higher concentration of alkaline cleaning agent as well as hydrogen peroxide in the second wash phase.

## **Risk areas for CJD:**

The OXIVARIO PLUS programme is strongly recommended for situations where the risk of prion contamination is particularly high. There is a very high risk of prion contamination in the central nervous system, in lymphatic tissue (tonsils, spleen, lymph nodes), ophthalmology and neurosurgery.

## **OXIVARIO PLUS**

Special programme for the prevention of iatrogenic transfer of CJD in compliance with the RKI Task Force.

- Excellent cleaning and removal of organic soiling
- Saves time by eliminating need for pre- and post-handling



Not all critical instruments for orthopaedic surgery can be processed using the OXIVARIO process. For instance colour coded implants must not be processed by oxidation. Likewise, the aluminium motor systems used in this type of surgery could not be processed by an alkaline process and the use of hydrogen peroxide.

To tackle this problem Miele developed the ORTHOVARIO process which combines excellent cleaning results with optimum protection of materials. The Orthovario process is aluminium tolerant and offers the perfect cleaning solution for critical surgical utensils.

## **ORTHOVARIO**

Special programme for orthopaedic instruments including motor systems and other medical products made of aluminium.

- Excellent cleaning results
- Good protection of alkali sensitive instruments

# Transport trolleys



## **MF/3 for G 7823/G 7824/G 7825/G 7826**

- Transfer trolley for easy handling of mobile units
- Foot-operated lifting mechanism
- 4 lockable wheels
- H 1182, W 600, D 807 mm, +/- 100 mm
- Loading height 751 mm, +/- 100 mm



## **MF 27/28 for PG 8527/PG 8528**

- 4 lockable wheels, Ø 100 mm,
- Mobile units can be loaded from either side of the trolley into the machine, work table, hatch, conveyor belt etc
- Loading height 850, - 100, + 150 mm
- H 1050, W 740, D 930 mm
- With removable drip tray  
H 70, W 603, D 866

# Aqua-Soft-System Test Kit



## **G 8597 Aqua-Soft-System, Twin tank water softener**

- For the continuous supply of soft water up to 40° dH

### **Output**

- 19 l/min (continuous),  
max. throughput 30 l/min

### **Construction**

- Freestanding appliance with wheels, filled from above
- Plastic outer casing

### **Controls**

- Volume controlled dual-chamber system

### **Features**

- 2 x 4.5 l resin containers
- 1 container for 20 kg salt

### **Electrical connection**

- Non-electrical operation

### **Water connection**

- 2 pressure hoses approx. 1.5 m long  
3/4" threaded union  
1 x cold or hot water max. 70°C  
min. 1 bar pressure, max. 8 bar pressure  
min. 2.5 bar incoming pressure without softener, 3.5 bar pressure with softener  
1 x connection from system to machine
- 2 water outlet hoses approx. 1.5 m long,  
(DN 8 for regeneration water and overflow)

### **Water consumption**

- 19 l per regeneration

### **Dimensions/weight**

- External dimensions:  
H 570, W 360, D 360 mm  
Weight (without salt) approx. 30 kg

### **Note regarding water connection:**

Odour seal and non-return flap must be provided onsite.



### **Test Kit**

- For testing for the presence of proteins and monitoring cleaning results
- Contents sufficient for 48 tests
- With coding strips for reflectometer

### **Post-processing safety**

Together with the Merck Company, Miele has developed a quick protein testing kit for the simple checking of instruments. This allows specific cleaning processes and quality control to be carried out in hospitals on a regular basis.

# Options for process documentation in the CSSD



## Process documentation

Documentation of process data is an important part of quality assurance in the processing of medical products. Cleaning and disinfection are carried out with validated processes, where validation is a pre-requisite of the documentation. The easiest way to prove that the validated process has been precisely reproduced for every load is to record the most important process parameters. In conjunction with IBH Datentechnik GmbH, Miele has developed the NetBox for its washer-disinfectors to enable the data to be recorded and managed. The Net Box is a complete documentation system consisting of hard- and software that allows the process protocols for up to four washer-disinfectors to be processed and archived.

## Features of an efficient process documentation system

- Complete system with high level of operational safety, incl. pre-installed and configured software
- Safe against manipulation
- Simple operation without in-depth experience of PCs
- Very simple installation
- Process visualisation
- Documentation specific to each load
- Load identification
- Documented load release
- Long term archiving

## The system components

- NetBox, keyboard, mouse, connection cables to connect to the washer-disinfectors

## Optional extras:

- Flat screen for visualisation of process data or identification of load
- Barcode-Scanner (wire connection or wireless with bluetooth), for optimum programme operation and simple load identification
- RFID scanner as alternative to barcode system
- Network cable for access via network

# Load allocation, data capture and archiving

## Protocol recording with the NetBox: safe and easy to use

The NetBox is a complete documentation system that includes pre-configured software. The system is connected to the washer-disinfector via an interface and collects all relevant data from the selected cleaning and disinfection programme. In normal use, the documentation is carried out automatically, with no input from the user. This ensures maximum operating safety as the NetBox is comprehensively protected against operator error. The process data remain initially in the memory which can hold data for up to 1000 loads. The data can subsequently be archived on a network or data carrier.

Networked machines can be operated and controlled via a PC. There is an optional flat screen for the new documentation system on which temperature/time curves and the wash protocol can be visualised. There is also an optional barcode scanner or RFID scanner for fast, reliable load identification. In addition, the user can pass or fail the load at the end of the process.

At the start of data capture all the process data for each washer-disinfector are recorded and given a batch number. Depending on machine, the report can include the following parameters:

- Batch number, date and machine number
- Programme name
- Time of programme start and end and the timings of the individual wash blocks
- Dispenser pump (nr.), concentration, temperature and time
- Temperature to be reached
- Assessment of disinfection temperature and duration
- Problems (eg. water inlet)
- Interruptions to programme (eg. stop, power failure)

For washer-disinfectors with Profitronic controls, the current temperature/time profile is recorded in the protocol at pre-set intervals (eg. every 5 secs).

Clip with barcode on the inserts



Scanning in the barcode



Scanning in of personal barcode after load release



## Protocol management

At the end of the load, the protocol is automatically saved in the protocol memory from where the data can be checked at any time, eg. for load number, machine number, user etc. The sets of data are protected and cannot be altered. Each person who has access to the process documentation programme is stored as an authorised user, with a password if required. An access key determines what level of access each user is permitted within the system.

## Analysis

The NetBox can provide a statistical analysis of every programme sequence for each machine. Additional programmes are available for further analysis of the stored data.

An important advantage of the NetBox, in comparison with a PC system, is the excellent level of operating safety it offers. It is also very easy to install and use, requires a minimum of space, has no ventilation fan and has very low operating costs.

The process documentation system is also, of course, available as a purely software solution for installation on a Windows PC.

# Service from afar with Miele Remote Service



Maximum availability, economy and reliability of washer-disinfectors is extremely important for medical institutions and laboratories.

Miele Professional offers the perfect solution: Miele Remote Service – an investment in a safe future. The Miele service technician can establish remote contact with a Miele washer-disinfector via Miele's specially developed RSA (Remote Service Assistant) module, and can generally make an initial diagnosis of the steps that need to be taken, whether for the Update function or in the event of servicing. For example, he can analyse technical problems, change programme parameters or update whole programmes.

By making an initial diagnosis remotely, the next stages of solving a problem can follow on more quickly and efficiently.

If required, error messages from the Miele washer-disinfector can be automatically transferred to the Miele Service Department. Miele Remote Service is the perfect complement to Miele's service contracts: for added reliability.

Miele's specially developed diagnosis systems can be implemented remotely and allow access to all control parameters of the Miele washer-disinfectors.

## **RSA**

### **Miele Remote Service Assistant**

- Splash protective casing for mounting on wall
- Connection via RS 232 interface for up to 6 Miele machines
- Ethernet connection
- Versions available: analogue, GSM (ISDN on request)
- Dimensions: W 217 mm, H 130 mm, D 85 mm
- Weight 650 g

### **Conditions for installation**

The appropriate telecommunications connections must be available for the use of the RSA in analogue or ISDN form. For the GSM version there must be sufficient network availability. Your Miele Service Technician will be happy to advise on the appropriate installation for you.



**Optimum availability and optimum economy through substantially reduced downtimes**

- More effective communication in the event of servicing
- Avoidance of engineer's visits (reduces servicing costs)
- Support for customer's personnel and technicians with solving problems
- Focussed supply of relevant replacement parts through early remote diagnosis

**Additional benefits of regular remote diagnosis:**

- Improved protection against breakdown by early recognition of problems
- Documented reliability via test protocol
- Reliable results

**Remote Service – saves time**

Should an unforeseen problem arise, the specially trained Miele Remote Service technicians can quickly and easily check the status of the Miele machine and prevent unplanned downtime for the washer-disinfector. If a service visit is required, the technician will already have valuable information on the type and extent of the disruption.

**Remote Service – reliability**

The combination of Remote Service and a maintenance or servicing contract will give long-term protection for your Miele machines. They ensure availability and reliability, not to mention budgetted service costs. Please contact Miele for details of availability and further details.

**Remote Service – investing in the future**

With Remote Service you will be ready to face the future. The machine's controls can be updated with new developments, so it will always have the latest technology.

# Technical data

Washer-disinfectors	G 7823 (1-door)	G 7824 (2-door)
Front loader with drop down door	●	–
Through feed model with drop down doors	–	●
For installation singly or in a row	●	●
Freshwater system, max. temperature 93°C	●	●
Direct connection of mobile units for cleaning/drying hollow instruments	●	●
2 circulation pumps [Qmax. l/min]	300/500*	300/500*
<b>Controls/Programmes</b>		
Profitronic, freely programmable	●	●
64 programme places	●	●
Electrical door lock	●	●
Peak load cut-out	●	●
Serial interface for process documentation	●	●
Sensor for automatic mobile unit recognition	●	●
<b>Water connections</b>		
1 x cold water, 2–10 bar pressure (200–1000 kPa) 4°dH	●	●
1 x hot water, 2–10 bar pressure (200–1000 kPa) 4°dH	●	●
1 x AD water, 2–10 pressure (200–1000 kPa)	●	●
3 inlet hoses 1/2" with 3/4"-threaded union	●	●
Drain valve DN 50, odour seal onsite	●	●
2 drain pumps, odour seal onsite, hose DN 22	○	○
<b>Electrical connection: electrical heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater [kW]	9.0	9.0
Circulation pump [kW]	0.4/0.8	0.4/0.8
Total connected load without drying unit [kW]	10.2	10.2
Total connected load with electrical drying unit [kW]	10.2	10.2
Fuse rating [A]	3 x 16	3 x 16
<b>Electrical connection: steam heating</b>		
3 N AC 400 V 50 Hz	●	●
Circulation pump [kW]	0.4/0.8	0.4/0.8
Total connected load without drying unit [kW]	1.5	1.5
Total connected load with electrical drying unit [kW]	4.5	4.5
Fuse rating [A]	3 x 16	3 x 16
Steam connection G 1/2" (DN 10)	●	●
Operating pressure 250–1000 kPa (electrical drying unit)	●	●
Pressurised air connection 600 kPa	●	●
<b>Electrical connection: steam/electric convertible heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater [kW]	9.0	9.0
Circulation pump [kW]	0.4/0.8	0.4/0.8
Total connected load with electrical drying unit [kW]	10.2	10.2
Fuse rating [A]	3 x 16	3 x 16
Steam connection G 1/2" (DN 10)	●	●
Operating pressure 250–1000 kPa (electrical drying unit)	●	●
Pressurised air connection 600 kPa	●	●
* 300 l for spray arms / 500 l for direct connection to mobile units		



# Technical data

Washer-disinfectors	G 7825 (1-door)	G 7826 (2-door)
Front loader with drop down door	●	–
Through feed model with drop down doors	–	●
For installation singly or in a row	●	●
Freshwater system, max. temperature 93°C	●	●
Direct connection of mobile units for cleaning/drying hollow instruments	●	●
2 circulation pumps [Qmax. l/min]	300/400*	300/400*
<b>Controls/Programme</b>		
Profitronic, freely programmable	●	●
64 programme places	●	●
Electrical door lock	●	●
Peak load cut-out	●	●
Serial interface for process documentation	●	●
Sensor for automatic mobile unit recognition	●	●
<b>Water connections</b>		
1 x cold water, 2–10 bar pressure (200–1000 kPa) (max. 4°dH)	●	●
1 x hot water, 2–10 bar pressure (200–1000 kPa) (max. 4°dH)	●	●
1 x AD water, 2–10 pressure (200–1000 kPa)	●	●
3 inlet hoses 1/2" with 3/4"-threaded union	●	●
Drain valve DN 50, odour seal onsite	●	●
2 drain pumps DN 22, odour seal onsite	○	○
<b>Electrical connection: electrical heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater [kW]	9.0	9.0
Circulation pump [kW]	0.3/0.7*	0.3/0.7*
Total connected load without drying unit [kW]	10.0	10.0
Total connected load with electrical drying unit [kW]	10.0	10.0
Fuse rating [A]	3 x 16	3 x 16
<b>Electrical connection: steam heating</b>		
3 N AC 400 V 50 Hz	●	●
Circulation pump [kW]	0.3/0.7*	0.3/0.7*
Total connected load without drying unit [kW]	1.65	1.65
Total connected load with electrical drying unit [kW]	9.0	9.0
Fuse rating [A]	3 x 16	3 x 16
Steam connection G 1/2" (DN 15)	●	●
Operating pressure 250–1000 kPa (electrical drying unit)	●	●
Pressurised air connection 600 kPa	●	●
<b>Electrical connection: steam/electric convertible heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater [kW]	9.0	9.0
Circulation pump [kW]	0.3/0.7	0.3/0.7
Total connected load with electrical drying unit [kW]	10.0	10.0
Fuse rating [A]	3 x 16	3 x 16
Steam connection G 1/2" (DN 15)	●	●
Operating pressure 250–1000 kPa (electrical drying unit)	●	●
Pressurised air connection 600 kPa	●	●



# Technical data

Washer-disinfectors	PG 8527 (1-door)	PG 8528 (2-door)
Front loader with lift up door	●	–
Through feed model with lift up doors	–	●
Full glass doors/wash cabinet illumination	○	○
For installation singly or in a row	●	●
Freshwater system, max. temperature 93°C	●	●
Direct connection of mobile units for cleaning/drying hollow instruments	●	●
2 circulation pumps [Qmax. l/min]	400/600*	400/600*
Boiler for pre-heating AD water	○	○
<b>Controls/Programmes</b>		
Profitronic+, 16 Standard programmes	●	●
64 programme places	●	●
Electrical door lock	●	●
Peak load cut-out	●	●
Interface for process documentation	●	●
Sensor for automatic mobile unit recognition	●	●
Spray arm sensor	●	●
Conductivity monitor	○	○
<b>Water connections</b>		
1 x cold water, 2–10 bar pressure (200–1000 kPa) (max. 4°dH)	●	●
1 x hot water, 2–10 bar pressure (200–1000 kPa) (max. 4°dH)	●	●
1 x AD water, 1.5–10 pressure (200–1000 kPa)	●	●
3 inlet hoses 1/2" with 3/4"-threaded union	●	●
Drain valve DN 50, odour seal onsite	●	●
2 drain pumps DN 22, odour seal onsite	○	○
<b>Electrical connection: electrical heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater wash cabinet [kW]	18	18
Heater boiler [kW]	15	15
Circulation pump [kW]	0.7/1.2*	0.7/1.2*
Total connected load without drying unit [kW]	20	20
Total connected load with electrical drying unit [kW]	20	20
Fuse rating [A]	3 x 32	3 x 32
<b>Electrical connection: steam heating</b>		
3 N AC 400 V 50 Hz	●	●
Circulation pump [kW]	0.7/1.2*	0.7/1.2*
Total connected load without drying unit [kW]	2	2
Total connected load with steam drying unit [kW]	10	10
Fuse rating [A]	3 x 16	3 x 16
Steam connection G 1/2" (DN 10)	●	●
Operating pressure 250–600 kPa (steam drying unit)	●	●
Pressurised air connection 600 kPa	●	●
<b>Electrical connection: steam/electric convertible heating</b>		
3 N AC 400 V 50 Hz	●	●
Heater wash cabinet [kW]	18	18
Heater boiler [kW]	15	15
Circulation pump [kW]	0.7/1.2*	0.7/1.2*
Total connected load with electrical drying unit [kW]	20	20
Fuse rating [A]	3 x 32	3 x 32
Steam connection G 1/2" (DN 10)	●	●
Operating pressure 250–1000 kPa (electrical drying unit)	●	●
Pressurised air connection 600 kPa	●	●



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