Miele
PROFESSIONAL

Instrument reprocessing in doctor's surgeries, operating theatres and clinics

Washing/Disinfection, Sterilisation, Documentation, Guarantess

System4Med

System solution for safe and efficient instrument reprocessing

Miele provides a complete system for safe and efficient work in doctor's offices, operating rooms and hospitals. The System4Med involves all aspects of modern instrument reprocessing and is based on decades of experience.

System4Med

The cleaners/disinfectors are now complemented perfectly with small sterilisers. The new B-class steriliser with its patented hardware enables very short cycle times, but with safe sterilization methods of course. New intelligent software solutions provide complete process documentation. And: A comprehensive service of the Miele factory customer service centres guarantees fast support in top Miele quality throughout Germany.

In the System4Med all of the components, devices, equipment, documentation are from one source and carefully designed to function together.

Leading manufacturers of instruments recommend the Miele reprocessing method

B BRAUN
SHARING EXPERTISE

Release of Miele ORTHOVARIO for the reprocessing of the current series of Aesculap drive systems.

Geuder®
Precision made in Germany

Recommended reprocessing of ophthalmic surgical instruments with the Miele system.

STORZ
KARL STORZ — ENDOSKOPE

Release of the Miele OXIVARIO PLUS-process for the prevention of iatrogenic transfer of vCJK.

RICHARD WOLF
spirit of excellence

Value enhancing reprocessing of instruments with the Miele VARIO TD and OXIVARIO-process.

OLYMPUS

Safe reprocessing of flexible endoscopes in the Miele developed and produced devices ETD3 and mini ETD2.

The manual reprocessing method includes many risks

Manual washing and disinfection of medical instruments requires a great deal of time and man hours. The method also conceals defect sources for maintaining exposure time, dosing concentration and tool life. Many instruments – such as narrow hollow body – are very difficult to prepare by hand. From an economic standpoint the high consumption of water, washing, and disinfecting agents results in excessive costs.

The advantages of machine reprocessing over manual reprocessing:

- Intensive washing as a prerequisite for effective sterilisation
- Simple hollow body washing of MIC instruments
- Optimum material protection and preservation of the instruments' value
- Lower batch costs through lower consumption of water, energy and process chemicals
- Reliable results through automatic supervision of the programme parameters
- Machine instrument reprocessing recommended by RKI
- The most safe form of instrument reprocessing also providing maximum protection during office inspection with respect to quality

Complete. Compatible.
Instrument protection ensured through uninterrupted system.

1 Washing/Disinfection

Innovative cleaners and disinfectors with custom made features.

Miele cleaners and disinfectors provide versatile and comprehensive solutions for the machine-based reprocessing of medical instruments and equipment. Individual applications, specially adapted programmes and efficient water treatment ensure the thorough, efficient and material-friendly interior and exterior washing of instruments – these can be adapted to every application in the hospital and central sterile supplies department.

2 Sterilisation

High-performance B-class steriliser for fast and safe reprocessing of all instruments.

Simple to operate with very short cycle times and excellent drying results the compact small steriliser from Miele makes sure that sterilisation processes are both fast and safe. The integrated water treatment and the service friendly setup of the unit also increase the cost effectiveness and efficiency of the instrument cycle in the doctor's offices, operating rooms and for the decentralised reprocessing in the hospital.

4 Guarantees

Advice, financing, service, and validation in secure premium quality from Miele.

The Miele team of advisors and the comprehensive service network with Miele factory support centres for customers provide customised service that includes a validation process backed by favourable service contracts and the arrangement of attractive financing options. Complete service from a single source – based on decades of system experience.

3 Documentation

Intelligent documentation software for traceable process sequences at any time.

Complete process documentation, high degree of automation, large range of functions and fast and intuitive handling: The Miele documentation software for cleaners, disinfectors and sterilisers supports effectiveness, time and cost saving work, and provides greater legal security through regular process protocols.

System4Med

System4Med

System solution for safe and efficient instrument reprocessing

1 Washing/Disinfection

The space economiser for small doctor's offices with low instrument volume

Washer and disinfector G 7831
- Free-standing/built-in unit
- External housing white or stainless steel
- Overall width only 45 cm H 850 (820*), W 450, D 600 mm
- 2 Loading levels
- Circulation output: 200 l/min
- 5 Programmes
- Normal household AC current connection
- Reprocessing per batch:
  1 DIN-sieve and 4 small mesh trays (E 146) or 24 GYN-specula

The universal solution with large wash cabinet and short programme cycles

Washer and disinfector G 7882
- Free-standing/built-in unit
- External housing white or stainless steel
- Overall width 60 cm H 850 (820*), W 600, D 600 mm
- 2 Loading levels
- Circulation output: 400 l/min
- 10 Programmes
- Three-phase current connection for short programme cycles
- Integrated dispenser pump for liquid process chemicals (neutralisation agents)
- Reprocessing per batch:
  4 DIN-sieves or 48 GYN-specula

Washer and disinfector with integrated hot air drying

Washer and disinfector G 7892
- Free-standing/built-in unit
- Exterior housing stainless steel
- Overall width only 60 cm H 850 (820*), W 600, D 600 mm
- 2 Loading levels
- Circulation output: 400 l/min
- 10 Programmes
- Three-phase current connection for short programme cycles
- Integrated dispenser pump for liquid process chemicals (neutralisation agents)
- Drying Plus: integrated hot-air drying
- Reprocessing per batch:
  4 DIN-sieves or 2 AN-sets or 1–2 MIC-sets or 48 GYN-specula

* Built-in unit

Technical data on pages 54–57

Washers and disinfectors

Illustration shows unit with lid

Compact cleaners and disinfector with integrated hot-air drying unit and drawer for supply containers

Washer and disinfector G 7882 CD
- Built-in/freestanding unit
- Exterior housing stainless steel
- Overall width 90 cm H 820* (850), W 900, D 700 mm
- 2 Loading levels
- Circulation output: 400 l/min
- 10 Programmes
- Three-phase current connection for short programme cycles
- 2 Integrated dispenser pumps for liquid process chemicals (alkaline detergent/ neutralisation agents)
- Drawer with 2 x 5 l supply containers
- Integrated hot-air drying unit
- Reprocessing per batch:
  4 DIN-sieves or 2 AN-sets or
  1–2 MIC-sets or 48 GYN-specula

Hygiene, Safety, Efficiency
- Machine-based, instrument reprocessing
- Thermal disinfection process
- Thorough washing and safe disinfection in a closed system
- Certified medical product, MDD-compliant
- Reproducible results, verifiable process
- Serial interface for process documentation (dependent on the type of device)
- Extensive safety equipment in compliance with EN ISO 15883
- Connection option for liquid process chemical dispensing systems

Made in Germany
Uncompromising quality and great innovative power – Made in Germany – are two of the greatest Miele benefits. Miele cleaners and disinfectors impress not only as integrated components in well-designed system solutions but (and more so in particular) also through their high level of performance and technical workmanship.

Made in Germany

Exclusive to MIELE **Exklusiv bei Miele**
- Tried-and-tested Miele quality, tested over 15.000 programme sequences
- Large wash cabinet with 2 wash levels for adequate washing capacity
- High-power circulation pumps with up to 400 l/min circulation output for the best washing results
- Thermo-disinfector G 7831 with only 45cm overall width, ideal for small sanitary rooms or for low instrument volumes
- Thermo-disinfector G 7892 with only 60cm overall width, 2 loading levels and integrated hot-air drying
- Largest selection of inserts and special inserts for reprocessing of all instruments
- Dispensing of liquid process chemicals and final rinsing with demineralised water (see pages 50–53)

* Built-in unit

Technical data on pages 56–57

Washer and disinfector G 7892 with **Drying Plus**

Miele offers a cleaner/disinfector with integrated hot-air drying that has an overall width of only 60 cm **"Drying Plus."** The unit concept enables extensive instrument reprocessing with thorough washing, safe disinfection and very effective drying.

Even instruments with complex forms can be safely reprocessed with hot-air drying. An S-class H 12 HEPA-filter integrated in the unit guarantees the cleanliness of the air used for drying. The filter is changed by opening the service panel on the lower front side of the machine and replacing it.

Miele's new G 7892 washer and disinfector meets all requirements, guaranteeing Miele's proverbial quality – Made in Germany.

The benefits of the washer and disinfector G 7892 with Drying Plus:

- Low space requirement of only 60 cm
- Larger wash cabinet with integrated drying
- Effective drying within a short time
- Drying times can be set in 5 minute intervals
- Faster drying process with hot air
- Exterior and interior drying of hollow body instruments
- No time-consuming postprocessing/drying of the instruments
- High level of material protection with reduced risk of corrosion
- Optimum drying of plastic objects
- Hygienic drying with HEPA filtered air
- Dry instruments for reliable sterilisation results

Figure left:
Washer and disinfector G 7892

Application anaesthetic instruments
Insert E 435/3

Figure right:
Washer and disinfector G 7892

Application MIS instruments
E 450/1
Mobile injector unit

Miele washers and disinfectors: Quality, inside and out

High quality design
Miele continuous to emphasise the use of robust and durable materials when designing their washers and disinfectors. This results in the production of units that are dependable and require very low maintenance during everyday use.
- Double-wall construction and door insulation reduce noise levels
- Wash cabinet and water circuit made of stainless steel
- Fabric-reinforced hoses

Cleaning technology
- Hygienic freshwater system with water changed after each rinsing phase
- 2 Spray arms (3rd spray arm on the top basket) for thorough surface washing of the instruments
- Optimum arrangement of the spray jets and adjustable spray arm speed
- Injection system for thorough hollow body washing
- Direct connection of the carriage and baskets on the water circuit

Standard technical features
- Professional-Monoblock-water softener, regeneration within the washing programmes with low salt consumption
- High-performance circulation pump with a circulation power of 400 l/min
- 4-fold-filter system with surface filter, coarse filter, course sieve and micro-filter for reliable filtering of dirt particles.
- Efficient steam condenser on heat exchanger basis (G 7831 and G 7882) or with spray mist technology (G 7892 and G 7882 CD) to prevent steam from escaping into the room air
- Flow meter for monitoring the water intake volume
- Integrated liquid media dispenser pump system
- Connectivity for liquid detergent media – dispensing system
- Integrated dispensing control
- Hot air drying for short process time (G 7892 and G 7882 CD)

Type
- For use as Freestanding unit or installed as a built-in unit in a worktop counter

Interfaces
- Serial interface for process documentation
- Optical interface for customer service and service functions, can be upgraded to USB interface when connecting a PC

Safety features
- Electrical door locking
- Programme failure protection
- Optical and acoustical signal at the end of the programme
- 2 Sensors for control and monitoring of the process temperature
- Sensor port for positioning sensors in the wash cabinet for validation purposes and annual service checks
- Safety equipment in compliance with EN ISO 15883

Control system, programmes, programme length

The figure shows the unit G 7882

Fully electronic control system, high process reliability
Programmes and functions on Miele washers and disinfectors G 7831, G 7882, G 7892 and G 7882 CD are reliably controlled and monitored by a MULTITRONIC control system. All of the Miele washers and disinfectors have a serial interface that can be upgraded to a USB interface when connecting a PC. As a result, the entire process data can be documented via a optional software or with the printer if necessary. (For additional information please see pages 66–71)

High degree of operating comfort
All symbols used on the control panel are language-neutral and self-explanatory. The operating state is immediately visible via the indicator lamps. A 3-digit 7-segment indicator in the display with its own toggle switch can be used to display the remaining programme duration or the current washing and disinfection temperature. Status and warning lights monitor and signal the user if there are specific service or error messages.

Features and functions G 7831
- Electronic control system MULTITRONIC Novo MED 45
- 5 Standard washing and disinfection programmes
- 1 free programme slot for creating customised programmes
- Rotary programme selector switch
- Programme sequence indicator and warning lights for service and malfunctions
- Temperature and programme length indicator

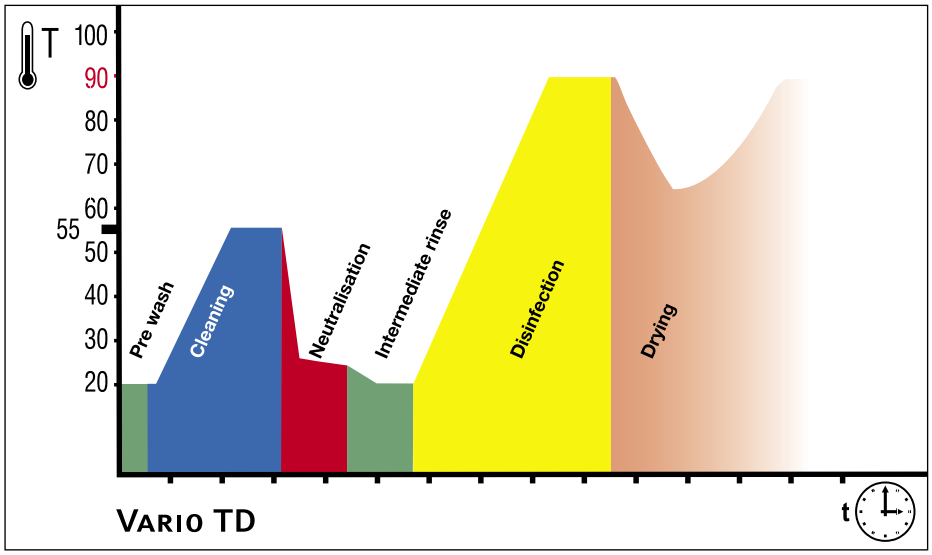
Features and functions G 7882, G 7892, G 7882 CD
- Electronic control system MULTITRONIC Novo Plus
- 10 Standard washing and disinfection programmes
- 2 free programme slots for creating customised programmes
- Rotary programme selector switch
- Programme sequence indicator and warning lights for service and malfunctions
- Temperature and programme length indicator

G 7831	Wash/disinfect			
	Programme length	KW	AD	Energy
	[min]	[l]	[l]	[kWh]
SPECIAL 93°C-10’	57	21.8	–	2
varioTD	55	30.3	–	1.8
Universal /III\	36	23.3	–	1.2
A (available programme slot)				
Rinse ⊥	4	6.5	–	0.01

Heating: 3.1 (1 N AC 230 V, 3.3 kW)
Connection to cold water 15°C

G 7882/G 7892/G 7882 CD	Wash/disinfect			Drying		
				G 7892/G 7882 CD		
	Programme length	KW	AD	Energy	Energy	
	[min]	[l]	[l]	[kWh]	[kWh]	
SPECIAL 93°C-10’	43	26.5*/25.5	9.5	2.9	1.0	* G 7882
SPECIAL AN 93°C-10’	48/49*	32.5/31.5*	15.0	3.8	1.2	* G 7882 CD
varioTD	42	38.5*/35.5	9.5	2.6	1.0	* G 7882
varioTD AN	57	60.5/57.5*	15.0	3.2	1.2	* G 7882 CD
CHEM 60°C-5’	40	40.0	9.5	2.3	0.7	
combi Chem 60°C-5’	34	29.5	9.5	1.8	0.7	
A (available programme slot)						
varioTD NR (B)	42	38.5/35.5*	9.5	2.6	1.0	* G 7882 CD
Universal /III\	28/32*	29.5	9.5	1.8	0.5	* G 7882 CD
Rinse ⊥	3	10.0	–	0.02	–	

Heating: 9 kW (3N AC 400 V, 9,7 kW),
excl. steam condenser
Connection to cold water (15°C) and demineralised water (15°C)
CW = cold water, WW = warm water, = aqua distilled



Preliminary washing in the **vario TD** programme is carried out at low temperatures to ensure that blood residue does not denature. After an intensive main cleaning phase is carried out the thermal disinfection takes place at >90°C and a holding time of 5 minutes. For optimum protection of surgical instrument the final rinsing is carried out with deionised water and no rinsing agents. This programme is well suited for routine reprocessing in compliance with EN ISO 15883 for all thermos table instruments. The process is extremely material-friendly. In the washer and disinfector G 7892 and G 7882 CD the hot air drying ensures that the instruments are thoroughly dried on the inside and outside at the end of the cycle.
The **SPECIAL 93°C-10'** programme is applied if so directed in compliance with epidemic law according to § 18 Infektionsschutzgesetz (IfSG) [Protection against Infection Law].
The Robert Koch Institute in Berlin (German institute for infectious diseases and non-communicable illnesses) has declared this programme to be suitable in effective areas A and B for the destruction of vegetative bacteria including micro-bacteria, fungi and fungal spores and also for inactivating viruses, including HBV and HIV.

1 Washing/Disinfection

Fig. shows: – Washer and disinfector PG 8535 – basic mobile unit for anaesthetic equipment E 501 – anaesthetic-module E 502 – on the machine: Anaesthetics module E 505

Washers and disinfectors PG 8535 and PG 8536

PG85 Perfection Guaranteed

Illustration shows unit with lid

Compact, high-tech washers and disinfectors with a freely programmable control system

High-performance, high-tech washers and disinfectors with a freely programmable control system

Washer and disinfector PG 8535

- Built-in/freestanding unit
- Exterior housing stainless steel
- Overall width 90 cm
- H 820* (850), W 900, D 700 mm
- Freely programmable Profitronic+control system with 17 programmes and 30 vacant programme slots
- Network interface for process documentation
- 2 Loading levels
- Circulation output of 400 l/min
- Spray arm sensor Perfect SpeedSensor
- Three-phase current connection for short programme cycles
- 2 Integrated dispenser pumps for liquid detergents and neutralisation agents
- Drawer with 2 x 5 l supply containers
- Integrated hot-air drying unit
- Option: OXIVARIO features
- Reprocessing per batch:
  2 AN-sets or 4 DIN-sieves or 1–2 MIC-sets or 48 GYN-specula

Washer and disinfector PG 8536

- Freestanding unit
- Exterior housing stainless steel
- Overall width 90 cm
- H 1175, W 900, D 700 mm
- Freely programmable Profitronic+control system with 18 programmes and 30 vacant programmes slots
- Network interface for process documentation
- 2 Loading levels
- High performance equipment with a circulation output of 600 l/min
- Spray arm sensor Perfect SpeedSensor
- Three-phase current connection for short programme cycles
- 2 integrated, low-maintenance bellows-type dispenser pumps for liquid detergent and neutralising agents
- Drawer with 4 x 5 l supply containers neutralisation agents, including ultrasonic-dispensing volume control Perfect FlowSensor
- Integrated hot-air drying unit
- Options:
  Conductivity measurement Perfect FlowSensor ORTHOVARIO features
- Reprocessing per batch:
  3 AN-sets or 7 DIN-sieves or 2 MIC-sets or 48 GYN-specula

* Built-in unit

Technical data on pages 58–59

- **Optimum ease of use**
- **Problem-free hygiene**
- **Perfect control**

Exclusive to MIELE

- Freely programmable control system
- Chemical resistant glass surface
- Innovative washing programmes

PerfectTouchControl
Easy to operate, excellent for washing: The washers and disinfectors of the PG 85 product line have a touch sensitive display as standard equipment. The easy to use PerfectTouch-Display guarantees incomparable ease of use and perfect hygiene. The completely flat glass surface is embedded and flush with the front of the unit. It is chemical resistant and can be easily disinfected by wiping it clean.

All of the touch-buttons are integrated behind the glass and activate the desired function when contacted lightly even if the user is wearing gloves. Complete control is simple to carry out and only requires touching few buttons. All of the operating sequences are displayed in the local language. The display texts for e.g. A0-value, actual-temperature, conductivity, remaining programme length and for the desired protocol data can be freely configured. In addition, the user can enter standard required values or individual A0-values via the integrated A0-value control system.

Features and functions
- Freely programmable control system PROFITRONIC+
- 64 Programme slots
- 18 Standard and 15 service programmes
- 30 vacant programme slots
- User navigation with local-language display
- Configurable displays and protocol contents
- 4 operating levels starting with first time user to experienced operator
- Countdown display and start-up selection function
- Comprehensive programming options, e.g. creation of custom made programmes for customers via free programme slots
- Automatic mobile unit recognition for automatic programme selection

- **Permanent conductivity measurement**
- **Residue-free rinsing**
- **Absolute protection during reprocessing**

Exclusive to MIELE

- Maintenance-free conductivity measurement

PerfectPureSensor
Residue after final rinsing can have a negative effect on the reprocessing results and potentially devastating consequences. Alkaline residue in ophthalmology is one extreme example of a situation where serious complications could arise during the next use of the instruments. Also, a high percentage of organic waste substances can cause material changes to the instruments in the form of corrosion and deposits. Therefore, the user must be informed about undesirable materials in the wash liquor or be able to verify these. Upon request the PG 8536 can be equipped with the newly patented PerfectPureSensor conductivity measurement. The conductivity measurement can reliably detect undesirable ingredients in the rinsing water such as dissolved salts, alkaline or acidic process chemicals and held below a threshold value defined by the customer.

The residues are identified via the conductivity of the wash liquor. Measuring and monitoring are carried out with contact/maintenance free system that measures the conductivity with minimal tolerances in a measurement range of 5 – 40 µS/cm and 40 µS/cm – 100 mS/cm. The programme sequence can be controlled via the conductivity measurement depending on the option is selected. The number of follow-up rinsing steps can be automatically adjusted via the sensor to ensure the desired threshold value is not exceeded: Additional rinsing automatically takes place until the level of conductivity defined by the user is measured by the sensor. The results can be shown in the display and thereafter documented.

The tolerable residue levels on surgical instruments stipulated by the chemical suppliers are reliably maintained with the PerfectPureSensor conductivity measurement. This ensures that the waste substances remaining on the instruments do not constitute a risk for the patient being operated on. Preserving the value of the instruments is also an important benefit for the user in addition to the high degree of toxological safety provided. Furthermore, documenting the conductivity of the entire process sequence provides additional security when duplicating validated processes.

PG85 PerfectFlowSensor

PG85 PerfectSpeedSensor

- **Permanent recording of the dispensing volume**
- **Exact measurement results, definable dispensing tolerances**
- **Perfect control of the media dispensed**

Exclusive to MIELE

- High measuring accuracy
- Dispensing control, independent of the temperature and viscosity of the media

PerfectFlowSensor
An important factor in producing a good reprocessing result is measuring the volume of process chemicals exactly when they are being dispensed. The current standard DIN EN ISO 15883 also stipulates that the dispensing of liquid media should be independently monitored. The new ultrasonic dispensing volume control PerfectFlowSensor from Miele Professional provides substantially more protection than the conventional measurement systems. The PerfectFlowSensor is integrated as standard equipment in the PG 8536 and ensures a level of precision previously unmatched when measuring and monitoring the volume of dispensed chemicals, independent of the respective viscosity and ambient temperature. The measuring system functions independent of the dispensing system and can be calibrated. The dispensing tolerance can be adjusted according to standardised guidelines or individually defined by the user. The use of chemicals is efficiently regulated independent of the type of product and even under extreme operating conditions (continuous use, fluctuating climactic ambient conditions). Therefore, every deviation from the recommended dose is always detected and the reproduction of the validated process is completely ensured. If deviations are detected outside of the tolerance a warning message is generated or the programme is immediately terminated.

- **Precisely monitored reprocessing procedures**
- **Reproducibility of verifiable processes**
- **Perfect washing and disinfection results**

Exclusive to MIELE

- Spray arm monitoring in all levels
- Speed monitoring of the spray arms

PerfectSpeedSensor
For optimum and safe washing and disinfection results the rotation speed of the spray arms must be set within the defined tolerances.
The exact speed of the machine spray arms and the basket and carriage spray arms are controlled and documented with the new spray arm controller unit PerfectSpeedSensor. From a sensor strip outside of the wash cabinet, the spray arm sensor continuously monitors whether the defined speeds are being reached. The display indicates whether the values are correct or whether the spray technology or processes must be checked, e.g. if the formation of foam obstructs the rotation of the spray arm.
Depending on the type of setting chosen, either a warning message appears or the programme is immediately terminated to give the user the opportunity to correct the error if there are deviations from the recommended values.
Any deviations can be automatically recorded in a process documentation. The standard equipment spray arm sensor in the PG 8535 and PG 8536 effectively prevents items from blocking the spray arms during the washing process and gathers relevant information about the washing pressure conditions in the unit, carriage and baskets. Especially important: The maintenance of the spray arm speed is an important indicator for the exact reproducibility of validated processes and provides a high degree of protection when reprocessing instruments in a Miele machine.

PG85 PerfectHepaDrying

PG85 PerfectDoc

- **Optimum drying results**
- **High air quality in the wash cabinet**
- **High standard of hygiene**

PerfectHepaDrying
Even in the drying stage: high hygiene standards with innovative Miele technology. The new HEPA high temperature filter Class H 13 is positioned directly in front of the wash cabinet and prevents undesirable particles and suspended matter from the room's air from entering. The guarantees that the air quality in the wash cabinet remains high. In addition, the optimum air circulation of PerfectHepaDrying produces ensure the best drying results.

- **Permanent process documentation**
- **Integration of the unit in the doctor's office / hospital network**
- **Comprehensive recording of parameters**
- **Absolute validity regarding process traceability**

Exclusive to MIELE

- Comprehensive recording of parameters including A0-values, dispensed quantities, conductivity and spray arm sensor

PerfectDoc
A network interface for process documentation is installed in the PG 8535/36 as standard equipment. This PerfectDoc-Module is the interfaced used for integration into the process documentation software. The module records numerous process parameters such as temperature curves and also documents complete process protocols including the A0-values, dispensed quantities, spray arm speed and conductivity. The documentation can also be printed-out on a printer that can be connected to the serial port of the unit. For additional information regarding process documentation please refer to pages 66–71.

Innovative washing programmes

1994

2004

2005

2011

Miele innovation for particularly difficult cases. Mile stones in the optimisation of cleaning results:

Innovation 1994
The varioTD method is considered today as the standard programme for routine instrument cleaning and disinfection, achieving excellent removal of low difficulty level protein-based contamination (blood, secretion). The thermal disinfection is carried out at >90°C and a 5 minutes holding time. A final rinsing programme preferably with deionised water and no rinsing agents for optimum protection of the instruments.

- Intensive cleaning using temperatures that will not cause protein to denature
- Disinfection in accordance with EN ISO 15883
- High materials compatibility

Innovation 2004
OXIVARIO
Special programme of the PG 8535/36 for critical instruments according to RKI requiring higher standards of cleaning, e.g. instruments used in trauma surgery as well as high-frequency cauterising instruments.

- Excellent washing and removal of organic soiling
- Time-saving by dispensing with the need for pre- and post-treatment

OXIVARIO PLUS
Special programme of the PG 8535/36 to prevent the iatrogenic transmission of vCJD according to guidelines published by the task force set up by Germany's Robert Koch Institute.

- Excellent washing and removal of organic soiling
- Time-saving by dispensing with the need for pre- and post-treatment

Innovation 2005
ORTHOVARIO
Special programme of the PG 8536 for orthopaedic instruments including drive systems and other medical products containing aluminium components.

- Excellent washing performance
- Good material compatibility even on instruments sensitive to alkalines

Innovation 2011
ROBOTVARIO
The complexity of robotic instruments of minimum invasive surgery places high demands on the safe and reliable reprocessing of instruments. The new reprocessing system ROBOTVARIO from Miele Professional consists of a specially developed loading carriage, a new reprocessing programme and newly adapted process chemicals. This is how Miele Professional provides a system solution for the safe and efficient cleaning of robotic instruments.

- Excellent washing performance
- Cost-effective and material-friendly reprocessing of valuable instruments

Programmes, programme durations, consumption data

PG 8536	Cleaning					Drying	
	Programme	duration	Cold water	Hot water	AD	Energy	Durations
	[min]	[l]	[l]	[l]	[kWh]	[min]	[kWh]
DES-VAR-TD	54	36.3	24.2	16	3.7	34.3	0.6
DES-VAR-TD AN	57	43	39.5	22	3.7	49.5	0.8
VAR-TD-NR	44	24.3	23.3	16	3.3	34.3	0.5
OPHTHALMOLOGIE	48	26.3	36.7	32	2.9	34.3	0.5
ORTHOVARIO	74	34.7	31.3	35	5	34.3	0.4
OXIVARIO	64	38.3	40.7	32	4.4	34.3	0.5
OXIVARIO PLUS	73	27	35	49	4.5	43.3	0.5
SCHUH-TD-75/2	27	27.7	35.8	–	1.5	39.3	0.4
SPECIAL 93/10	48	22	25.5	15.5	3.9	39.3	0.7
CHEM-DESIN	38	26.3	51.7	–	1.8	40.5	0.4
LAB-STANDARD	33	8.5	38.5	18	2.6	34.3	0.6
LAB-UNIVERSAL	35	8.5	55	21	2.3	34.3	0.6
LAB-INTENSIV	43	8.5	40	48	2.7	34.3	0.6
LAB-PIPETTEN	46	11.5	74.5	44	2.5	34.3	0.3
KUNSTSTOFF	38	62.5	–	20	2.5	44.6	0.4
ORGANICA	41	1	64	21	2.8	34.3	0.6
ANORGANICA	43	4	49	48	2.4	34.3	0.6
LAB-OEL	47	1	80.5	21	2.5	34.3	0.3

Heater: 9 kW (3N AC 400 V, 10.2 kW)

Connection to cold water (15°C), hot water (65 °C) and AD water (15 °C)

Note: HGR

The PG 8535 has the same programmes like the PG 8536 except for the Orthovario programme.

Programme durations and consumption values may slightly vary.

OPHTHALMOLOGY programme

The PG 8535/36 have for the first time an ophthalmology programme that has been specifically geared to the needs of ophthalmological application. Chemical residues are being reduced to a minimum thanks to the secondary rinsing using fully demineralised water. This is particularly essential since residues of process chemicals may cause serious complications such as cauterisation of the cornea. The PG 8536 with its integrated conductivity measurement (see p. 15 for further details on conductivity measurement) recommends itself specifically for the exact monitoring of chemical residues in every programme sequence.

Leading manufacturers of instruments recommend the Miele reprocessing method:

B BRAUN SHARING EXPERTISE

Release of Miele ORTHOVARIO for the reprocessing of the current series of Aesculap drive systems.

Geuder® Precision made in Germany

Recommended reprocessing of ophthalmic surgical instruments with the Miele system.

STORZ KARL STORZ — ENDOSKOPE

Release of the Miele OXIVARIO PLUS-process for the prevention of iatrogenic transfer of vCJK.

RICHARD WOLF spirit of excellence

Value enhancing reprocessing of instruments with the Miele VARIO TD and OXIVARIO-process.

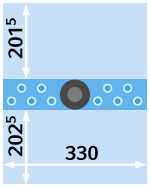
OLYMPUS

Safe reprocessing of flexible endoscopes in the Miele developed and produced devices ETD3 and mini ETD2.

Upper and lower baskets for cleaner/disinfector G 7831

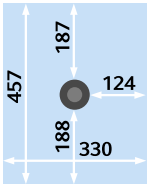
O 801/2 Upper basket/injector

- Front and rear sections to receive various inserts, clearance 200 mm
- Central axis with support frame for hollow instruments, e.g. suction devices and 6 holders (AUF 2) for transmission instruments, 10 silicone holders and 10 jets 4.0 mm dia., L 30 mm, clearance 175 mm
- Integrated spray arm
- H 267, W 381, D 475 mm



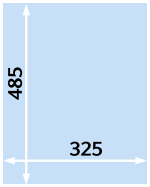
O 800/1 Upper basket/carrier

- For accommodating inserts
- Clearance 200 mm
- Integrated spray arm
- H 270, W 381, D 475 mm

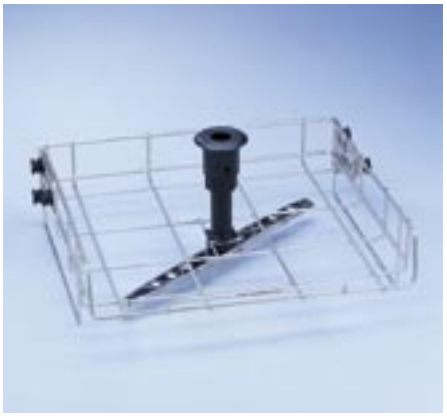


U 800 Lower basket/carrier

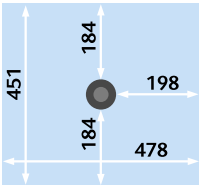
- For accommodating inserts
- Loading area W 325, D 485 mm
- Clearance at combination with upper basket
  O 800/1 approx. 295 mm
  O 801/2 approx. 270 mm
- H 62, W 385, D 505 mm



Upper and lower baskets for cleaners/disinfectors G 7882, G 7892, G 7882 CD, PG 8535, PG 8536

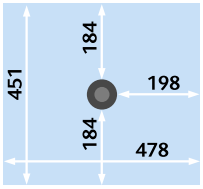


O 188/1 Top basket/carrier
- Open front
- For accommodating inserts
- Clearance 165 +/– 20 mm
- Integrated spray arm
- H 215, W 531, D 475 mm

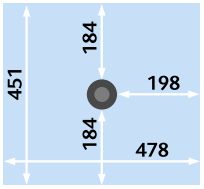


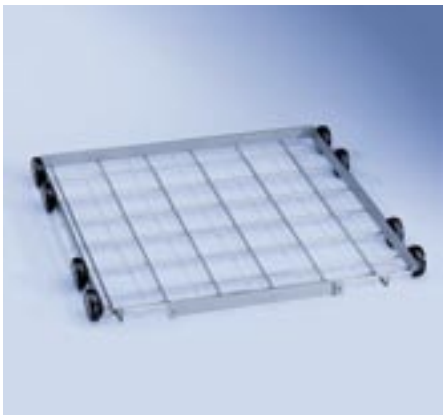
O 190/2 Top basket/carrier
- Open front
- For accommodating inserts
- Clearance 215 +/– 20 mm
- Integrated spray arm
- H 265, W 531, D 475 mm

Powder dispensing not possible

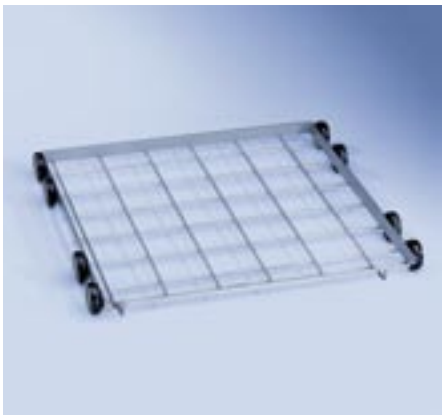


O 191/1 Top basket/carrier
- Open front
- For accommodating a mesh tray (E 142)
- Clearance 115 +/– 20 mm
- Useable width 475 mm
- Useable depth 450 mm
- Built-in spray arm above -basket
- H 180 +/- 20 mm W 531, D 475 mm

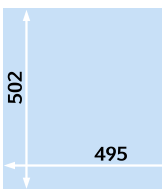




U 874/1 Lower basket/carrier
- For accommodating inserts
- Clearance when combined with upper basket:
  O 176 approx. 110 mm
  O 177/1 approx. 220 mm – 20/– 40 mm
  O 183 approx. 185 mm +/– 20 mm
  O 188/1 approx. 270 mm +/– 20 mm
  O 190/1 approx. 220 mm +/– 20 mm
  O 191/1 approx. 295 mm
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 50, W 534, D 515 mm



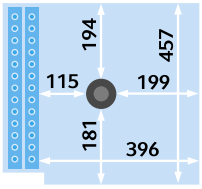
U 874/2
- Like U 874/1
- For standard DIN mesh trays (e.g. Aesculap) as well as Miele half-inserts
- without holder for ML/2 magnetic strip



Upper baskets/injector for cleaners/disinfectors G 7892, G 7882 CD, PG 8535, PG 8536

O 177/1 Upper basket/injector unit

- Integrated spray arm
- Right side free for inserts
- Left side with 26 silicone holders:
- 26 jets 4 mm dia., L 30 mm, 7 funnels supplied loose, with height-adjustable support frame
- Clearance 230/205 mm
- Height adjustable +20/+40 mm
- H 263, W 498, D 455 mm



O 176 Upper basket/injector unit with drying connector

- For MIS, arthroscopy and urology instruments
- Left side free for inserts Clearance 360 mm, 10 injector nozzles
- Right side for lumened instruments max. length 500,14 injector nozzles/ funnels
- Connection for hot-air drying unit

Powder dispensing not possible

O 183 Upper basket/injector unit

- For MIS, arthroscopy and urology instruments
- Left side free for inserts Clearance 285 +/– 20 mm, 10 injector nozzles
- Right side for lumened instruments max. length 370 +/– 30 mm, 14 injector nozzles/funnels

Powder dispensing not possible

O 176/1 Upper basket/injector unit with drying connector

- For **MIS,** arthroscopy and urology instruments
- 10 receptacles
- Integrated magnetic spray arm
- Note: HGR Magnet for using the PG 8535, PG 8536 spray arm sensing
- Left side free for inserts
- Right side for lumened instruments with max. length of 500 mm
- Clearance 360 mm
- Connection for hot-air drying unit
- Powder dispensing not possible

The scope of O 176/1 delivery includes:

2 x Spray nozzles, 2.5 mm dia.
4 x Spray nozzles, 4 mm dia.
4 x funnels
2 x E 442 irrigation sheath
2 x E 448 silicone hose
1 x E 452 injector nozzles
1 x E 453 injector nozzles
1 x E 454 injector nozzles

OP instruments

E 327 Mobile unit
For use in G 7892, G 7882 CD,
PG 8535, PG 8536
- For 4 DIN mesh trays on 2 levels
- Integrated spray arm
- Clearance from below:
  Level 1: H 112, W 520, D 510 mm
  Level 2: H 105, W 512, D 480 mm
- Holder for ML/2 magnetic strip for automatic mobile unit recognition

Exclusive to MIELE

- Loading capacity instruments of 40 kg

E 439/3 Mobile unit
For use in PG 8536
- For 7 mesh trays on 3 or 4 levels
- 2 built-in spray arms
- Second level up removable
- Clearance from below:
  Level 1: H 70, W 488, D 499 mm
  (w/out level 2: H 155 mm)
  Level 2: H 70, W 509, D 510 mm
  Level 3: H 90, W 520, D 470 mm
  Level 4: H 90, W 490, D 460 mm
- Holder for ML/2 magnetic strip for automatic mobile unit recognition

Exclusive to MIELE

- Loading capacity instruments of 70 kg

Anaesthetic instruments/Modular system

Modular basket concept
Miele offers a new modular basket concept for reprocessing anaesthetic instruments and accessories. This consists of a basic carriage and modules for anaestetic tubing and intubation material. This allows anaesthetic instruments and accessories to be reprocessed individually and flexibly to suit individual requirements. A further E 427 module for 6 laryngoscopes completes the system.

E 501 carriage
For use in G 7892, G 7882 CD, PG 8535
- For E 502, E 505 modules
- For approx. 2 AN sets in combination with E 502
- 6 injector nozzles for breathing bags, breathing masks
- 10 injector nozzles for intubation material
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

E 503 carriage
As per E 501
- For use in PG 8536
- For E 504, E 505 modules
- For approx. 3 AN sets in combination with E 504

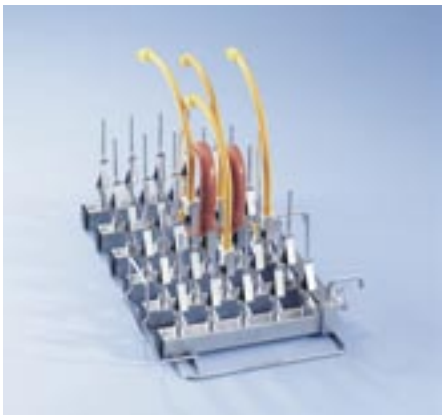
E 501, E 503 supplied with:
- 6 x E 466 injector nozzle for breathing bags, 8 x 333 mm
- 10 x E 496 injector nozzle for intubation material, 4 x 120 mm
- 1 x injector nozzle E 431 for bellows
- 1 x mesh insert for small items
- 8 x irrigation tubes for double-lumened laryngeal masks, 4 x 70 mm

E 502 module for breathing tubes
For use in E 501
- Module for 6 breathing tubes
- 6 nozzles with spring connectors
- Support for breathing tubes with max. length of 1.5 m
- Fitted on a spiral rack

Items supplied:
- 2 x E 433 holder for 3 silicone breathing tubes
- 1 x E 434 holder for 3 paediatric breathing tubes
- 1 x E 432 holder for 3 corrugated breathing tubes

E 504 module for breathing tubes
For use in E 503
- Module for 8 breathing tubes
- 8 nozzles with spring connectors
- Support for breathing tubes with max. length of 1.5 m
- Fitted on a spiral rack

Items supplied:
- 2 x E 433 holder for 4 silicone breathing tubes
- 1 x E 434 holder for 4 paediatric breathing tubes
- 1 x E 432 holder for 4 corrugated breathing tubes



E 505 module for intubation material
For use in E 501 and E 503
- Module for intubation material
- 30 injector nozzles to connect intubation material, e.g. laryngeal masks, breathing bags, Guedel tubes or endotracheal cannula

Items supplied:
- 30 x E 496 injector nozzle for intubation material, 4 x 120 mm

Anaesthetic instruments

Sample combination
E 501 carriage with E 502 tubing module

Sample combination
Basic carriage with E 505 module for intubation material

E 461/2 Mobile unit
For use in G 7892, G 7882 CD, PG 8535, PG 8536
- For 12 breathing tubes up to 1.5 m long, fitted on a spiral rack
- 1 x E 432 holder for
- 4 breathing tubes each
- 3 x E 433 holders for 4 silicone tubes, enclosed
- 1 x E 434 holder for 4 paediatric breathing tubes
- 1 x E 430/1 mesh tray
- 1 x A 3 cover net
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

Machine	Anaesthetic/modular system			Mobile anaesthetic unit	
G 7892	E 501	E 502	E 505	E 435/3	E 461/2
G 7882 CD	E 501	E 502	E 505	E 435/3	E 461/2
PG 8535	E 501	E 502	E 505	E 435/3	E 461/2
PG 8536	E 503	E 504	E 505	E 436/3	E 461/2

E 435/3 Mobile unit
For use in G 7892, G 7882 CD, PG 8535
- For approx. 2 AN sets
- 6 spring nozzles for breathing tubes with max. length of 1.5 m
- Fitted on a spiral rack
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 507, W 535, D 515 mm

E 436/3 Mobile unit
For use in PG 8536
- For approx. 3 AN sets
- 8 spring nozzles for breathing tubes with max. length of 1.5 m
- Fitted on a spiral rack
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 507, W 535, D 515 mm

E 435/3 and E 436/3 supplied with:
- 1 x E 430 mesh tray
- 1 x E 432 holder for 3–4 concertina breathing tubes
- 2 x E 433 holder for 3–4 silicone breathing tubes[1])
- 1 x E 434 holder for 3–4 paediatric silicone breathing tubes
- 6 x E 466 injector nozzle for breathing bags, 8 x 333 mm
- 1 x E 431 injector nozzle for bellows, 8 x 193 mm
- 10 x E 496 nozzles, 4 x 120 mm
- 1 x A 3 cover net

[1]) Mounted

Anaesthetic instruments

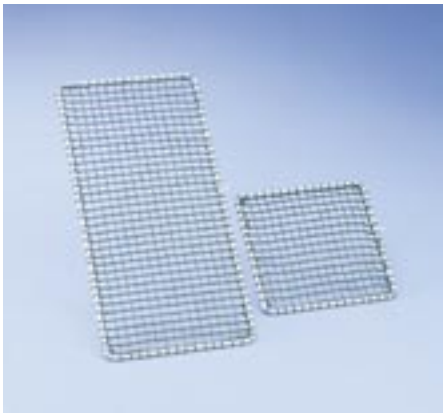
E 381 Mobile injector unit with drying connector
For use in G 7892, G 7882 CD,
PG 8535, PG 8536
- For intubation material
- 20 Nozzles 4.0 x 30 mm with clamp springs
- 5 nozzles, 2.5 x 30 mm (supplied loose)
- 6 x E 466 injector nozzle for breathing bags 8.0 x 333 mm
- 2 x E 431 injector nozzle for bellows 8.0 x 193 mm
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

E 367 Mobile injector unit with drying connector
For use in G 7892, G 7882 CD,
PG 8535, PG 8536
- For intubation material
- 20 nozzles, 2.5 x 30 mm
- 25 nozzles, 4.0 x 30 mm (5 supplied loose)
- 40 spring clips for nozzles
- 1 x E 378 1/1 mesh insert H 80 + 30, W 460, D 460 mm
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

E 368 mobile injector unit with drying connector for intensive care
For use in G 7892, G 7882 CD,
PG 8535, PG 8536
- For narrow-lumen breathing tubes, fitted with:
- 10 Nozzles 4.0 x 30 mm with clamp springs
- 14 Nozzles 6.0 x 220 mm with clamp springs
- 2 x E 431 injector nozzle for bellows 8 x 193 mm
- 1 instrument box UTS/1 H 93, W 102, D 180 mm
- Connection for hot-air drying unit
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

U 167 Lower basket for – anaesthetic instruments
For use in G 7892, G 7882 CD,
PG 8535, PG 8536
- For 4 soda lime containers, 9 secretion jars and various other utensils
- 20 x 200 mm holders, spacing approx. 95 mm
- H 220, W 535, D 516 mm

E 496 injector nozzle
- For intubation material, 4 x 120 mm



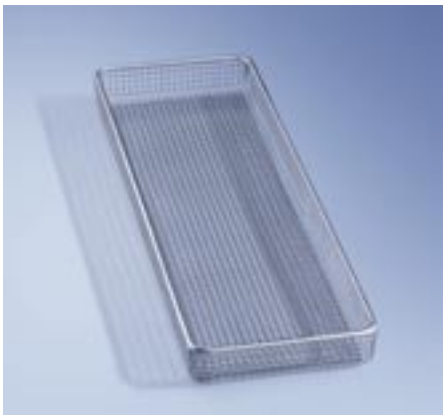
A2 cover net 1/2 (left fig.)
- 216 x 456 mm
- Plastic-coated metal frame with plastic netting
- For inserts 1/2

A3 cover net 1/4 (right fig.)
- 206 x 206 mm
- Plastic-coated metal frame with plastic netting
- For inserts 1/4

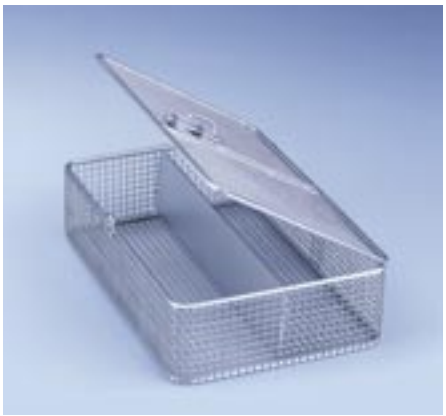
A6 1/2 cover net
- Stainless-steel frame with polypropylene threads (particularly hard-wearing and durable)
- E.g for mesh insert E 142
- 215 x 445 mm

E 427 Modular insert
- Rack for 6 laryngoscopes
- H 92, W 210, D 134 mm

UTS Utensil box
- For sundry small items, with lid
- 3 compartments, compartment size 115 x 100 mm
- H 93, W 102, D 350 mm



E 430/1 Insert 1/3 mesh tray
- Wire mesh, mesh size 5 mm
- H 40, W 150, D 445 mm



E 468 1/4 mesh insert with lid and compartments
- For various -inserts
- Made from welded mesh/stainless steel with lid and compartments
- Mesh size 5 x 5 x 1 mm
- H 70/76, W 250, D 170 mm

Inserts for upper and lower baskets

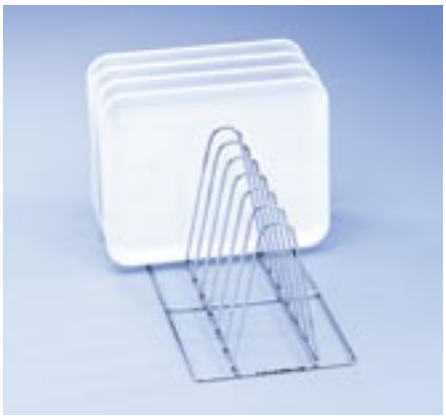
E 417 Insert 2/5
- For approx. 30 ear and nose speculae
- 280 sections approx. 13 x 13 mm
- Mesh size of base: 1.7 mm
- For upper or lower basket
- H 63, W 173, D 445 mm

E 803 Insert 2/5
- For ear and nose speculae
- 160 sections approx. 13 x 13 mm
- Mesh size of base: 1.7 mm
- For upper or lower basket
- H 63, W 165, D 317 mm

E 374 Insert 2/5
- For ENT instruments such as inhalation connections, etc.
- 24 sections approx. 45 x 45 mm
- 27 sections approx. 12 x 12 mm
- Mesh size of base: 1.7 mm
- For upper or lower basket
- H 63, W 173, D 445 mm

Further inserts for ENT application:
Insert E 373 on page 30
and insert E 106 on page 33

E 416 Insert 1/4
- For 6 one- or two-part speculae
- 7 holders, spacing 40 mm
- For upper or lower basket
- H 157, W 178, D 279 mm



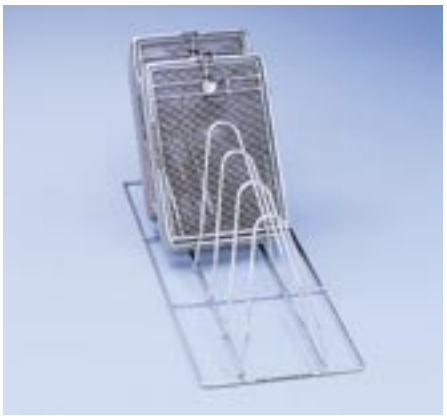
E 130 Insert 1/2
- For 10 trays
- 11 holders, H 170 mm, spacing 35 mm
- For lower basket
- H 180, W 180, D 445 mm

E 806 insert
- For 11 tray bases/trays
- 12 holders (11 sections), W 295, D 21.5 mm
- Max. tray size 290 x 20 mm
- For lower basket
- H 114, W 305, D 315 mm

E 338 Insert 3/5
- For 8 half trays
- 10 holders (8 sections), W 295, D 33 mm
- Max. tray size 290 x 30 mm
- For upper or lower basket
- H 115, W 305, D 453 mm

E 805 insert
- For 8 half trays
- 10 holders (8 sections), W 295, D 33 mm
- Max. tray size 290 x 30 mm
- For lower basket
- H 114, W 305, D 353 mm

E 339 Insert 3/5
- For 16 tray bases/trays
- 17 holders (16 sections), W 295, D 21.5 mm
- Max. tray size 290 x 20 mm
- For lower basket
- H 115, W 305, D 468 mm



E 131 Insert 1/2
- For 5 mesh trays/kidney dishes
- 6 holders, H 160 mm, spacing 80 mm
- For lower basket
- H 168, W 180, D 495 mm

E 800 insert
- For 3 mesh trays/kidney dishes
- 4 holders, H 165 mm, spacing approx. 68 mm
- For upper or lower basket
- H 165, W 140, D 290 mm

E 492 Insert 1/2
- For 9 kidney dishes
- 9 holders, H 86 mm, spacing 49 mm
- For lower basket
- H 120, W 256, D 474 mm

Inserts for upper and lower baskets

E 146 Insert 1/6 (Fig.)
- Mesh size of base 3 mm
- Mesh size of sides 1.7 mm
- Mesh size of lid 8 mm
- 2 swiveling carrying handles
- For upper or lower basket
- H 55, W 150, D 225 mm

E 363 Insert 1/6
- Mesh size 1 mm, with lid
- For upper or lower basket
- H 55, W 150, D 225 mm

E 328 support
- For instruments in upright position
- For E 146/E 363

E 373 Insert 1/6
- For ENT instruments (e.g. ear specula)
- Wire mesh with following mesh sizes:
  3 mm on the base, 1.7 mm on the sides,
  3 mm on the lid
- 28 upright supports
- 2 swiveling carrying handles
- For upper or lower basket
- H 55, W 150, D 225 mm

E 441 Insert 1/4
- For micro instruments
- Mesh size of base 1.7 mm
- Solid sides, stackable
- Internal divisions with 6 adjustable supports provide the ideal storage for instruments
- For upper or lower basket
- H 60, W 183, D 284 mm

E 337 Insert 2/5
- For instruments arranged in an upright position
  18 sections approx. 47 x 51 mm
  75 sections approx. 14 x 14 mm
- 1 drip tray in the middle, oblong section
- For upper basket O 190/1/O 177/1 or lower basket
- H 145, W 175, D 445 mm

E 802 insert
- For instruments arranged in an upright position
  4 sections approx. 47 x 51 mm
  4 sections approx. 47 x 40 mm
  2 sections approx. 42 x 51 mm
  2 sections approx. 42 x 40 mm
  48 sections 14 x 14 mm
- 1 drip tray in the middle, oblong section
- For upper or lower basket
- H 133, W 163, D 295 mm

E 142 Insert 1/2
- DIN mesh tray
- 1 mm wire mesh
- 5 mm mesh size
- 5 mm all-round frame
- 2 swiveling carrying handles
- Max. load 10 kg
- H 45/55, W 255, D 480 mm

E 143 Insert 1/4
- Mesh tray
- 1 mm wire mesh
- 5 mm mesh size
- 5 mm all-round frame
- 2 swiveling carrying handles
- Max. load 5 kg
- For upper or lower basket
- H 45/55, W 255, D 230 mm

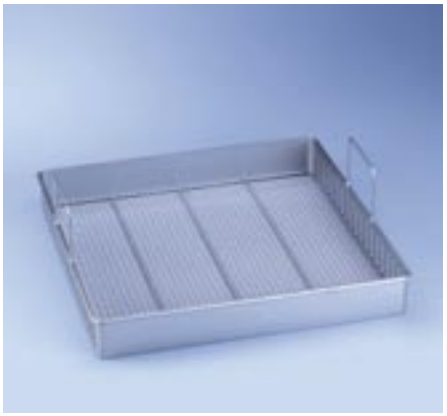
E 378 Insert 1/1
- For various inserts
- 0.8 mm wire mesh
- 1.7 mm mesh size
- 5 mm all-round frame
- 2 carrying handles
- For lower basket
- H 80/110, W 460, D 460 mm

E 473/1 mesh insert with lid
- Mesh tray with lid for sundry small items
- For hanging
- H 85, W 60, D 60 mm

E 379 Insert 1/2
- For various inserts
- 0.8 mm wire mesh
- 1.7 mm mesh size
- 5 mm all-round frame
- 2 carrying handles
- For upper or lower basket
- H 80/110, W 180, D 445 mm

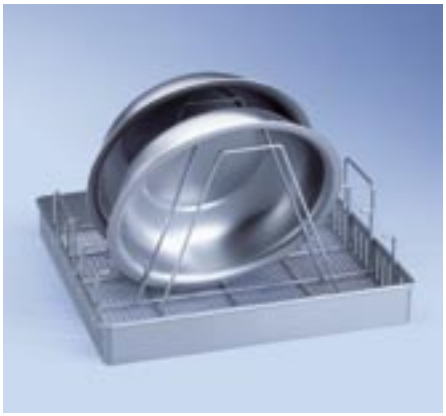
E 451 Insert 1/6
- Mesh tray with lid for sundry small items
- Wire mesh:
  1 mm on the base
  0.8 mm on the sides
  1 mm on the lid
  Mesh sizes:
  3 mm on the base
  1.7 mm on the sides
  8 mm on the lid
- Removable internal dividers
- H 55, W 150, D 225 mm

Insert E 484 for upper and lower baskets



E 484 Insert 1/1
- For various utensils
- Wire gauge: 1.4 mm
  mesh size: 8 mm
- Can be fitted with holders
  – 4 x E 485 for 9 kidney dishes or
  – 4 x E 486 for 4 bowls or
  – 4 x E 487 for 16 operating shoes or
  – 3 x E 488 for 9 breathing masks or
  – 11 x E 489 universal holders for e.g. insoles
- H 65 (150), W 470, D 480 mm

Example:
E 484 with 4 x E 485 holders
- Equipped with 4 holders
- E 485 for 9 kidney dishes



Example:
E 484 with 4 x E 486 holders
- Equipped with 4 holders
- E 486 for 4 bowls

Example:
E 484 with 4 x E 487 holders, long
- Equipped with 4 holders
- E 487 for 4 operating shoes each, height 280 mm
- E 487 dimensions
- H 280, W 464, D 10 mm

Example:
E 484 with 11 x universal holder E 489
- Equipped with 11 universal holders E 489 for e.g. insoles, height 60 mm
- E 489 dimensions
- H 60, W 464, D 10 mm

Example:
E 484 with 3 x E 488 holders
- Equipped with 3 holders
- E 488 for 9 breathing masks

Inserts

E 106 Insert 1/2 (Fig.)
- For ENT instruments
- 10 spring hooks, H 175 mm
- 16 spring hooks, H 105 mm, spacing approx. 60 cm
- H 186, W 195, D 430 mm

E 106 Insert 1/2
- With 26 small spring hooks 105 mm, spacing approx. 60 cm
- H 116, W 195, D 410 mm

E 106 Insert 2/2
- With 13 large spring hooks 175 mm, spacing approx. 85 cm
- H 186, W 180, D 420 mm

E 125 Insert 1/1* (Fig.)
- For 9 x 2,000 ml bottles
- 9 sections, section size (bottle) 125 x 125 mm
- Section size (neck) 55 x 55 mm
- H 224, W 460, D 460 mm

E 124 Insert 1/1*
- For 16 x 1,000 ml bottles
- 16 sections, section size (bottle) 100 x 100 mm
- Section size (neck) 48 x 48 mm
- H 148, W 460, D 460 mm

E 129 Insert 1/1
- For 20 x 500 ml bottles
- 20 sections, section size (bottle) 84 x 84 mm
- Section size (neck) 46 x 46 mm
- H 113, W 445, D 445 mm

E 128 Insert 1/1
- For 24 x 250 ml bottles
- 24 sections, section size (bottle) 71 x 71 mm
- Section size (neck) 46 x 46 mm
- H 103, W 445, D 445 mm

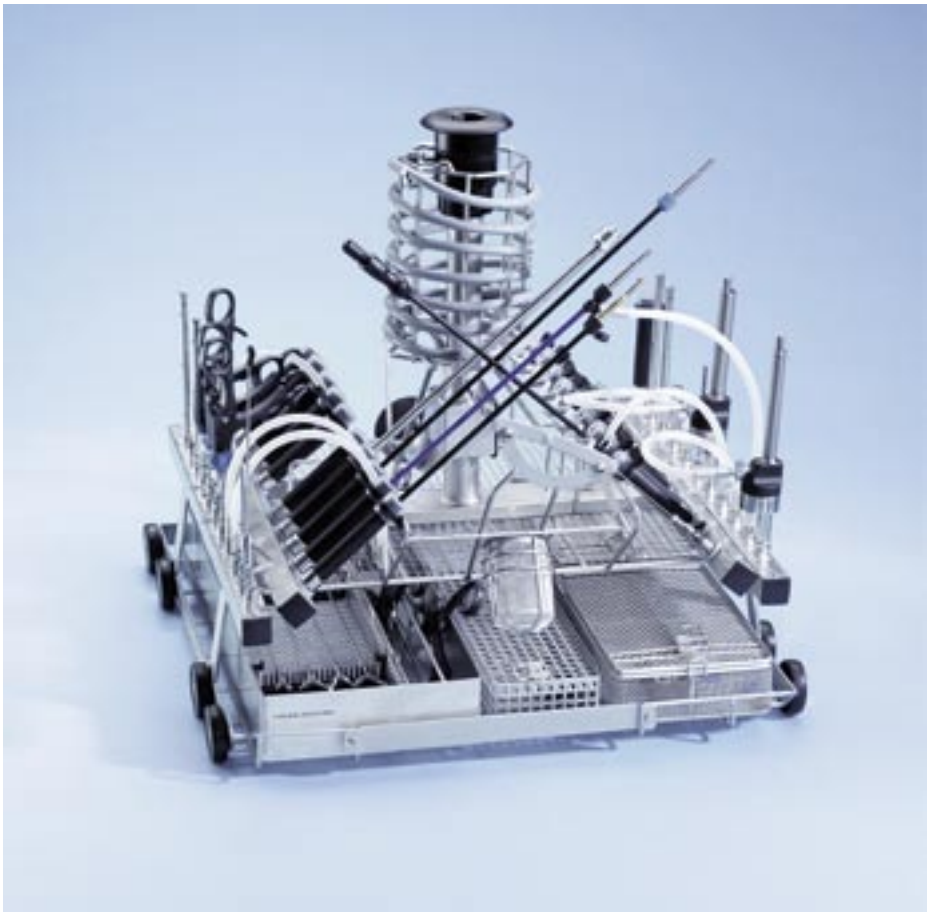
E 127 Insert 1/1
- For 44 x 100 ml bottles
- 44 sections, section size (bottle) 57 x 57 mm
- Section size (neck) 46 x 46 mm
- H 102, W 445, D 445 mm

E 126 Insert 1/1 (Fig.)
- For 48 x 50 ml bottles
- 48 sections, section size (bottle) 45 x 45 mm
- Section size (neck) 28 x 28 mm
- H 83, W 445, D 445 mm

Description
- Baskets and inserts only for simple cleaning of infusion bottles.
- No direct injection from inside and no 2-fold spray system in compliance with GMP standard.

* Not for use in upper basket

MIC instruments



Injector strip on E 450/1

E 450/1 injector drawer TA
Applicable for G 7892, G 7882 CD,
PG 8535, PG 8536

- For MIC instruments, max. length 550 mm
- E 451 mesh tray for small parts
- Placement on two levels
- Placement dimensions from below:
  Level 1 = H 110, W 480,
  D 500 mm (for holding inserts
  e.g. 2 x E 457)
- Level 2 = H 360, W 350, D 200 mm
- Accommodates
  E 451 mesh tray for small parts
  E 457 insert for detachable MIC instruments
  E 460 insert for rigid lenses
  E 473 mesh tray for smallest parts
  E 444 drum for cold light cables and suction hoses
- Connection for hot-air drying
- Holder for magnetic strip ML/2 for mobile unit recognition
- H 502, W 535, D 515 mm

Scope of delivery:
3 x E 336 irrigation sheath, 121 mm
2 x E 362 blind screw
15 x E 442 irrigation sheath, 121 mm,
for MIC instruments Ø 4–8 mm
5 x E 443 irrigation sheath, 121 mm,
for MIC instruments Ø 8–12 mm
1 x E 445 12 caps
Opening: 6 mm for irrigation sheath
1 x E 446 12 caps
Opening: 10 mm for irrigation sheath
3 x E 447 adapter female,
for Luer lock male
6 x E 448 silicon hose
300 mm long, 5 x 1.5 mm with Luer lock adapter, male
5 x E 449 adapter male,
for Luer lock female
1 x E 451 insert 1/6 mesh tray with lid
3 x E 452 injector nozzle, Ø 2.5 x 60 mm
8 x E 453 injector nozzle,
Ø 4.0 x 110 mm with fastening bracket
6 x E 454 injector nozzle for trocar sleeve
10–15 mm
4 x E 456 opening spring for
MIC instruments such as scissors,
clamps etc.
3 x E 464 holder for injector nozzle E 454
2 x E 472 clamp spring for injector nozzle
diameter 4.0 mm

MIC instruments
Modular system for PG 8536

E 474/4 injector base unit TA
- Base unit for modular inserts
- Modular system for up to 2 MIC surgery sets
- Holds cavity instruments in 3 modular inserts with integrated nozzles/adaptors
- Accommodates:
  E 903 modular insert for MIC instruments/urology
  E 905 modular insert for short MIC instruments
  E 906 modular insert for long MIC instruments
  E 444 drum for cold light cables and suction hoses
  E 460 insert for rigid lenses
  E 457 insert for detachable MIC instruments or E 142 DIN mesh tray
- Connection for hot-air drying
- Holder for magnetic strip ML/2 for mobile unit recognition
- H 507, B 535, T 515 mm

Scope of delivery:
- 2 x E 362 blind screw
- 3 x E 447 adapter female

MIC instruments
Modular system for PG 8536

Quality assurance in a medical practice and in a hospital – optimum processing of the medical instruments is a central issue.

The use of instruments for trans-urethral resections is intrinsically tied to instrument contamination deep into all cavities. Furthermore, the partly very filigree instruments as well as the short surgical intervention times in the scope of urology make great demands on safe and fast provision and adequate processing technology. Like in all medical sectors, here also applies:
No safe disinfection and sterilization without thorough cleaning.

Miele has developed a system solution for MIC instruments e.g. from urology, arthroscopy and laparoscopy, which also allows for local processing of complete sets – efficient, gentle and safe. The cleaner/disinfector PG 8536 provides a new high-performance cleaner/disinfector with freely programmable control. The base unit E 474/4 and the modular inserts for the instruments provide for special benefits with regard to handling, ergonomics, personal protection and flexibility. The standardized processing procedure with documentable processes gives the safety required by the quality demand for instrument processing.

The modules used can be kept ready specifically for the surgery set and/or adjusted to the instruments of the surgical set by quick changeover of the irrigation devices. The modular insert E 903 to hold TUR sets is available for urology application. For other surgical sets, e.g. laprascopy, the modular inserts E 905 for short instruments or E 906 for long instruments are used.

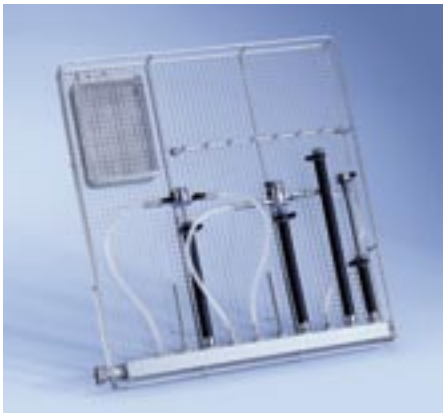
For dental clinics, the module E 919 for transfer instruments is available, which is designed for processing of turbines/manual and angular parts in larger amounts. 10 transfer instruments can be accommodated per module, so that with accommodation of 3 modules a total of 30 transfer instruments can be processes per batch in the E 474.

After loading and insertion, the modules are placed and adapted in the base unit E 474/4.
Due to the application-specific variations, Miele offers the base unit without modules and other inserts, so that each user can individually determine the required additional equipment, which then will also effectively solve any problems with MIC surgical sets.

Note
The Miele system solution for MIC and TUR instruments is shown in the film: “Cleaning and disinfection of MIC/urology instruments”, available as video cassette and CD ROM.
Information at: 0180 2 30 31 31
(€ 0.06 €/call from German fixed network, cellular radio max. € 0.42 /min.)

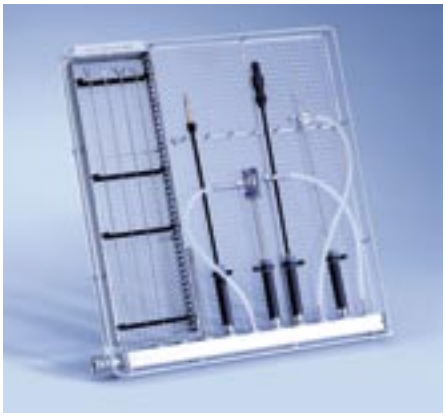
E 905/1 modular insert
- For short MIC instruments
- 16 options for insertion
- Partition for e.g. arthroscopy, laparoscopy
- H 40, W 461, D 510 mm

The scope of delivery includes:
- 1 x E 336 irrigation sheath MIBO for pipettes/MIC instruments
- 2 x E 362 blind screw
- 1 x E 442 irrigation sheath for MIC instruments Ø 4–8 mm
- 2 x E 447 adapter female, for Luer lock male
- 4 x E 448 silicon hose, 300 mm long, 5 x 1.5 mm with Luer lock adapter, male
- 2 x E 449 adapter male, for Luer lock female
- 4 x E 452 injector nozzle 2.5 x 60 mm
- 3 x E 453 injector nozzle 4.0 x 110 mm with fastening bracket
- 3 x E 454 injector nozzle for trocar sleeves 10–15 mm
- 1 x E 464 acceptance for injector nozzle E 454
- 1 x E 472 clamp spring for injector nozzle Ø 4 mm
- 1 x E 907/1 insert/mesh tray with lid for small parts



E 903/1 modular insert
- For TUR sets (transurethral resection)
- 10 options for insertion
- H 40, W 461, D 510 mm

The scope of delivery includes:
- 3 x E 442 irrigation sheath 121 mm for MIC instruments Ø 4–8 mm
- 1 x E 444 insert drum for cold light cable/ suction hose
- 1 x E 447 adapter female, for Luer lock male
- 4 x E 448 silicon hose, 300 mm long, 5 x 1.5 mm with Luer lock adapter, male
- 3 x E 453 injector nozzle 4,0 x 110 mm with fastening bracket
- 1 x E 454 insert for trocar sleeve or bladder syringe
- 3 x E 467 irrigation sheath 205 mm for MIC instruments/clip applying forceps
- 3 x E 469 irrigation sheath 300 mm for MIC instruments/urology
- 1 x E 907/1 insert/mesh tray with lid for small parts
- 2 m silicon hose Ø 5 mm
- 2 plastic supports, applicable in mobile unit E 474/1, E 902/1



E 906/1 modular insert
- For long MIC instruments
- 10 options for insertion
- Partition for e.g. arthroscopy, laparoscopy
- H 40, W 461, D 510 mm

The scope of delivery includes:
- 1 x E 336 irrigation sheath MIBO for pipettes/MIC instruments
- 2 x E 362 blind screw
- 5 x E 442 irrigation sheath for MIC instruments Ø 4–8 mm
- 3 x E 443 irrigation sheath for MIC instruments Ø 8–12 mm
- 2 x E 448 silicon hose, 300 mm long, 5 x 15 mm with Luer lock adapter, male
- 1 x E 454 injector nozzle for trocar sleeves 10–15 mm
- 2 x E 456 opening spring for MIC instruments
- 1 x E 464 insert for injector nozzle E 454
- 1 x E 908 insert for detachable MIC instruments/working inserts

Note
Other baskets for MIC instruments on page 22.

E 919
Holds 10 turbines/manual and angular parts in dental and otolaryngology sector
- Applicable in E 474
- Cleaning with VARIO TD programme
- Cleaning to be accomplished with neutral to mild-alkaline liquid cleaner
- Combination with MIC instruments possible
- Scope of delivery: 10 inserts for transfer instruments, without adapter parts (ADS 1–3)

MIC accessories

E 451 insert 1/6
- Mesh tray with lid for small parts
- Wire mesh:
  1 mm bottom
  0.8 mm sides
  1 mm lid
  Mesh widths:
  3 mm bottom
  1.7 mm sides
  3 mm lid
- Interior partition is can be extracted
- H 55, W 150, D 225 mm

E 907/1 insert/mesh tray
- Mesh tray with lid for small parts
- Mesh width 3 x 1 mm
- Hook to hang into E 905
- H 46, W 129, D 170 mm

E 908/1 insert
- For detachable MIC instruments/working inserts
- Mesh width 8 x 1 mm, sides closed
- Interior partition individually adjustable with 4 division bars for storage and arresting of 8–12 disassembled working inserts of detachable MIC instruments
- Hook to hang into E 906
- H 36, W 130, D 460 mm

E 142 insert 1/2
- DIN mesh tray
- 1 mm wire mesh
- 5 mm mesh width
- 5 mm circumferential frame
- 2 swivelling able handles
- Max. load capacity 10 kg
- H 45/55, W 255, D 480 mm

E 473/1 insert/mesh tray
- Mesh tray with lid for smallest parts
- To hang into mesh trays
- H 85, W 60, D 60 mm

E 444 insert/drum
- For cold light cables and suction hoses
- Cold light cables and suction hoses are spirally wound around the drum
- H 168 mm, with retainer bracket, 214 mm
- Ø 140 mm

E 457 insert 1/2

- For detachable MIC instruments (e.g. 12 handles as well as working inserts)
- Bottom wire mesh with 3 mm mesh width, sides closed
- Welded holder for 8–12 handles, interior partition individually adjustable with 4 division bars for storage and arresting of 8–12 disassembled working inserts of detachable MIC instruments
- H 62, W 192, D 490 mm

E 460 insert 1/4

- For rigid lenses of different length
- Mesh width bottom 8 x 1 mm sides/lid 7 x 7 x 3 mm
- With 3 fasteners to hold 2 rigid lenses of different length
- H 53, W 100, D 430 mm

E 362 blind screw

- Thread M 8 x 1, to close screwed connections of the injector units

MIC accessories

E 469 irrigation sheath ①
- For MIC instruments/urology
- Length 300 mm, Ø 11 mm
- Cap, opening Ø 6 mm (M.-No. 4 174 960)
- Fastening clip (M.-No. 4 174 850)

E 467 irrigation sheath ②
- For MIC instruments/ clip applying forceps
- Length 205 mm, Ø 11 mm

E 336 irrigation sheath 3 ③
- Length 121 mm, Ø 11 mm

E 442 irrigation sheath ④
- For MIC instruments with 4–8 mm Ø, screwable
- Length 121 mm, Ø 11 mm
- Cap, opening Ø 6 mm (M.-No. 4174960)
- Fastening clip (M.-No. 4 174 850)

E 443 irrigation sheath ⑤
- For MIC instruments with 8–8.5 mm Ø
- Length 121 mm, Ø 11 mm
- Cap, opening Ø 10 mm (M.-No. 4 174 970)
- Fastening clip (M.-No. 4 174 850)

E 445 caps
- 12 caps for irrigation sheath
- Opening 6 mm

E 446 caps
- 12 caps for irrigation sheath
- Opening 10 mm

E 456 opening spring ①
- For MIC instruments

E 475 holding bar ②
- For MIC insert
- For stabilisation of the irrigation sheaths (M.-No. 4 692 430)

E 447 adapter female ①
- For Luer lock, male, screwable for E 450/1, O 176, O 183

E 449 adapter male, without bar* ②
- For Luer lock, female, screwable for E 450/1, O 176, O-183

E 452 injector nozzle ③
- Length 60 mm, Ø 2.5 mm, screwable, for injector unit

E 453 injector nozzle ④
- Holding bracket
- Length 110 mm, Ø 4 mm, screwable, for injector unit

E 448 silicon hose ⑤
- Lue lock adapter, male
- Length 300 mm, Ø 5 mm
- Irrigation sheath, thread 8 x 1 mm

* The adapter with bar is available from the customer service under Mat.-No. 4 224 230.

E 464 holder
- For injector nozzle E 454 13 x 65 mm
- Spring for height adjustment (M.-No. 4 692 440)

E 454 injector nozzle
- For trocar sleeves with 10–15 mm Ø, 8 x 150 mm
- Spring for height adjustment (Mat.-No. 4 692 430)

E 471 spring clip
- For injector nozzle Ø 2.5 mm, for E 452

E 472 spring clip
- For injector nozzle Ø 4.0 mm, for E 351, E 453

Micro instruments for eye surgery

Geuder AG recommends processing in Miele cleaners/disinfectors for cleaning and disinfection of their instruments of the current series.

Geuder®
Precision made in Germany

E 429 mobile injector unit
For use in G 7892, G 7882 CD, PG 8535
- For micro instruments (eye surgery)
- For 2–4 surgery sets
- Integrated spray arm
- Placement on 2 levels
- Clearance from below
  Level 1: 125 mm
  Level 2: approx. 150 mm from upper edge thread nut
- Level 1:
  Holds inserts
  (e.g. E 441/1 or E 142)
- Level 2, left side:
  20 connections for hollow instruments
  (10 Luer lock adapters, male,
  10 Luer lock adapters, female), the connector for adapter E 478 is on the supply pipe
- Level 2, right side:
  16 Luer lock adapters, male, with horizontally arranged hose
- Holder for ML/2 magnetic strip for automatic mobile unit recognition

The scope of delivery includes:
- 1 bag E 476 (50 pc.) as well as
- 1 bag E 477 (20 pc.)
- 8 x E 790 adapter pieces Luer lock, female/Luer lock, female
- 8 x E 791 adapter pieces Luer lock, female/Luer lock, male

Note:
The E 429 requires a second water supply from below. Therefore, the lower spray arm in the machine needs to be removed.

Micro instruments for eye surgery

E 792
Connector Luer lock, male with silicon hose

E 790
Connecting piece
Luer lock, female/Luer lock, female

E 791
Connecting piece
Luer lock, female/Luer lock, male

E 440/2 mobile injector unit
For use in PG 8536
- For micro instruments (eye surgery)
- For 4 surgical sets
- Integrated spray arm
- Placement on 3 levels
- Level 1 and 2: holds inserts (e.g. E 441/1) or E 142
- Ebene 3, linke Seite:
  20 connections for hollow instruments (10 Luer lock adapters, male, 10 Luer lock adapters, female), the connector for holder E 478 is on the supply pipe
- Level 3, right side:
  16 Luer lock adapters, male, with horizontally arranged hose
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- Clearance from below
  Level 1: 115 mm
  Level 2: 86 mm
  Level 3: approx. 110 mm from upper edge thread nut

The scope of delivery includes:
- 1 bag E 476 (50 pc.) as well as
- 1 bag E 477 (20 pc.)
- 8 x E 790 adapter pieces Luer lock, female/Luer lock, female
- 8 x E 791 adapter pieces Luer lock, female/Luer lock, male

Individual supply of connecting pieces available:
- 4 pc. package E 790
  Luer lock, female/Luer lock, female
- 4 pc. package E 791
  Luer lock, female/Luer lock, male
- 4 pc. package E 792 Luer lock male with silicon hose (160 mm length)

Accessories for micro instruments

E 478/1 Holder
- For holding of 4 canulas with a low inner diameter (Sautter canulas)

FP
- Stainless steel filter plate for E 478
- Reprocessable
- Diameter 30 mm

E 441/1 insert 1/4
- For holding micro instruments
- Bottom mesh width 1.7 mm
- Closed sides, stackable
- Interior compartmentation with 6 adjustable bars for gentle storing of instruments
- H 60, W 183, D 284 mm

E 142 insert 1/2
- DIN mesh tray
- 1 mm wire mesh
- 5 mm mesh width
- 5 mm circumferential frame
- 2 swivelling handles
- Max. load capacity 10 kg
- H 45/55, W 255, D 480 mm

Figure shows E 142 with inserts E 476 and arresters E 477

E 476 inserts
- Can be used in mesh trays with 5 mm mesh width (e.g. E 142)
- 50 pc. per bag
- For holding instruments with 4–8 mm Ø

E 479 inserts
- Can be used in mesh trays with 5 mm mesh width (e.g. E 142)
- 50 pc. per bag
- For holding instruments with up to 4 mm Ø

E 477 arresters
- Can be used in mesh trays with 5 mm mesh width (e.g. E 142)
- 20 pc. per bag

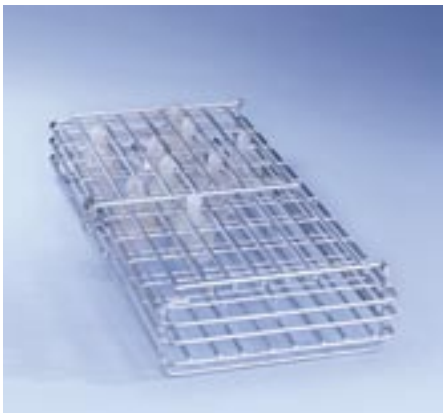
Inserts for baby bottles and accessories

E 135 insert 1/2 container
- Container for baby bottles 250 ml each
  Bottle size 56 x 56 mm
  Neck 49 x 49 mm
- H 194, W 192, D 447 mm incl. lid
- For upper and/or lower basket

E 135/1 insert 1/2
- For 19 baby bottles 110 ml each
  Bottle size 51 x 51 mm
  Neck 45 x 45 mm
- H 135, W 192, D 447 mm
- For upper and/or lower basket

E 135/2 insert 1/2
- For 19 baby bottles 90 ml each
  Bottle size 51 x 51 mm
  Neck 42 x 42 mm
- H 125, W 192, D 447 mm
- For upper and/or lower basket

E 135/3 insert 1/2
- For 19 baby bottles 120 ml each
  Bottle size 56 x 56 mm
  Neck 49 x 49 mm
- H 135, W 192, D 447 mm
- For upper and/or lower basket



E 364 insert 1/2 container
- Container for 36 wide-neck teats
- 36 compartments 41 x 41 mm
- Swivelling lid can be closed
- H 77, W 215, D 445 mm

E 458 insert 1/2 container
- Container for 36 screw-cap teats
- 36 compartments 29 x 29 mm
- Swivelling lid can be closed
- H 63, W 215, D 445 mm

AK 12 insert 1/2 basket
- For breast pumps
- For holding different utensils
- H 67/127, W 225, D 442 mm
  (lid A 14 not included in the scope of delivery)

Baby bottles:
Processing and transport system

Baby bottles are normally processed directly at the ward. The Miele cleaners/ disinfectors G 7892, G 7882 CD and PG 8535, which with a height of 820 mm (without lid) can be built underneath a worktop, are recommended as an interesting installation solution. Miele has developed a very practicable container system for transport, handling, cleaning and disinfection of the baby bottles. The containers hold all established bottle sizes. 2 containers can be placed each into the upper and lower basket. Thus, a total of 76 baby bottles are cleaned and disinfected per batch. Teats and screw caps are placed into appropriate inserts.

1. Used empty baby bottles are placed into the container E 135 with the bottle opening facing upwards.

2. The container is closed with the lid (grid). The container is rotated by 180° (bottle opening facing downwards) and placed into the disinfector.

3. After cleaning and disinfection, the lid is removed again and the bottles can be refilled in the container.

4. The filled bottles are closed and stored in the refrigerator until use.

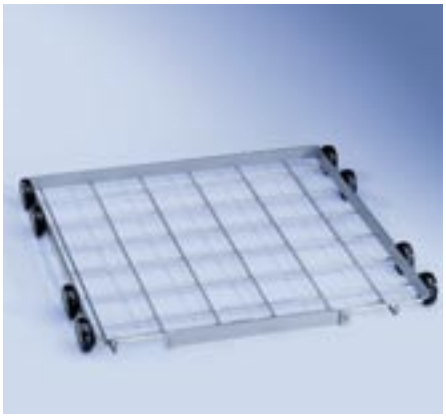
Inserts for surgical shoes

Also surgical shoes should be thoroughly cleaned and disinfected after use. Surgery shoes made of polyurethane (PU) are widely used. of Such thermo-labile shoes are often machine-processed with chemo-thermal processes at a temperature of 60°C with a residence time of 5 min. However, the handling of the chemical disinfection agents used is not without problems and in addition it is cost-intensive.
After intense test series, Miele has developed a new procedure for the exclusive thermal processing of surgical shoes, which has proven highly successful in practical everyday application.
The processing programme is available for the appliances PG 8535 and PG 8536.

Following a thorough cleaning phase with temperatures below 55°C, the thermal disinfection is carried out with the parameters 75°C and 2 min residence time. With 22 minutes (without drying), the new procedure is significantly shorter than the chemo-thermic process (approx. 37 min.) and abstaining from chemical disinfection agents results in both ecologic and economic benefits.

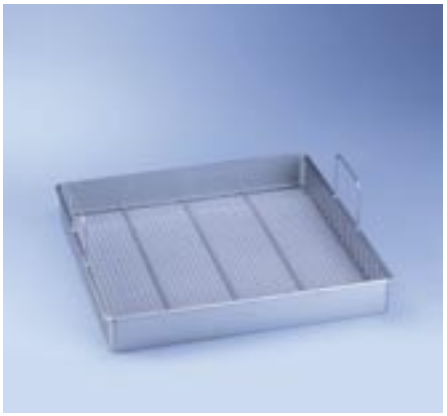
O 167 upper basket
- For holding of up to 28 inserted soles of surgical shoes
- Built-in spray arm
- H 195, W 531, D 475 mm

O 173 upper basket
- Holds 8 surgical shoes up to size 7.5 (GB)
- Built-in spray arm
- H 195, W 531, D 475 mm



U 874/1 lower basket/carriage
- For holding of E 484
- Open front side
- For holding of different inserts
- Clearance for combination with upper basket:
  O 176 approx. 110 mm
  O 177/1 approx. 220 mm – 20/– 40 mm
  O 183 approx. 185 mm +/– 20 mm
  O 188/1 approx. 270 mm +/– 20 mm
  O 190/1 approx. 220 mm +/– 20 mm
  O 191 approx. 295 mm
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 50, W 534, D 515 mm

U 168/1 lower basket
- For holding of 20 surgical shoes up to size 10.5 (GB)
- 20 holders 295 mm
- Holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 315, W 535, D 515 mm



E 484 insert 1/1
- Holds various utensils
- Wire mesh: 1.4 mm
- Mesh width: 8 mm
- Can be equipped with fasteners
  – 4 x E 487 for 16 surgical shoes or
  – 11 x E 489 all-purpose fasteners
    e.g. for inserted soles
- H 65 (150), W 470, D 480 mm

E 484 with 4 x E 487 fastener long
- Equipped with 4 fasteners E 487 to hold je 4 surgical shoes each, height 280 mm
- Dimensions E 487
  H 280, W 464, D 10 mm

E 484 with 11 x E 489 all-purpose fasteners
- Equipped with 11 all-purpose fasteners E 489 e.g. for inserted soles, height 60 mm
- Dimensions E 489
  H 60, W 464, D 10 mm

Mobile unit
and accessories for monitoring cleaning results

MT Mieltrans, mobile unit
- For storage and transport of baskets and inserts
- Partitioned in 4 adjustable levels
- Load dimensions W 549 x D 599 mm
- Screen height dimension 102.5 mm
- 4 lockable rollers
- H 1985, W 616, D 662 mm

MC/1 Mielcar, mobile loading and unloading unit
- For loading and unloading of cleaner/ disinfectors with baskets and inserts
- 2 storage levels (trough-shaped)
- Handle and docking sheet
- Retraction level H 640–885 mm, continuously adjustable
- 4 rollers, 2 of them lockable
- H 1000, W 630, D 814 mm (with extracted docking sheet D 960 mm)

For use with PG 8536 and cleaners/ disinfectors on 30 cm high base frame.

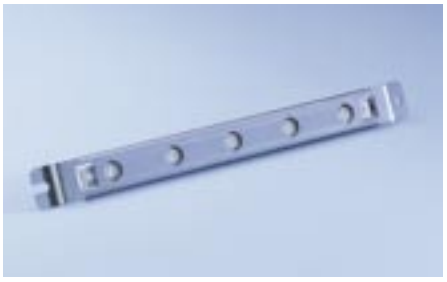
Test Kit
- For testing for the presence of proteins and monitoring cleaning results
- Contents sufficient for 48 tests
- With coding strips for reflectometer

Post-processing safety
Together with the Merck company, Miele has developed a quick protein testing kit for simple checking the cleaning of instruments. This allows specific cleaning processes and quality control to be carried out in dental surgeries.

Can be ordered from Miele customer service, M.-No. 6 157 330

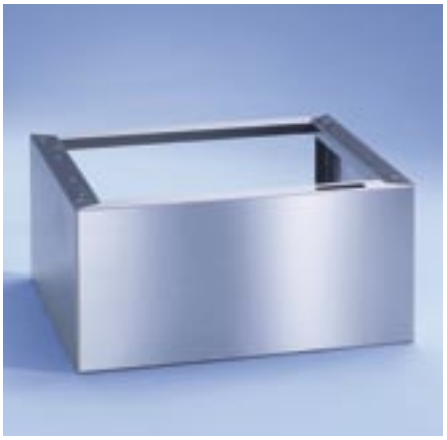
The illustration shows the Miele Test Kit with reflectometer from Merck (not included in the scope of delivery)

Accessories
Plinths



ML/2 magnetic strip
- Magnetic strip for automatic mobile unit recognition
- 5 magnets, for variable combination
- 15 possible combinations

Retrofittable magnetic spray arm
- Magnetic spray arms can be retrofitted in PG 8535, PG 8536 to use the spray arm sensor, if baskets/mobile units without magnetic spray arms are available already.



UE 30-60/60-78 plinth (Illustr. above)
- For use with G 7892
- Stainless steel plinth, machine screws onto plinth
- H 300, W 600, D 600 mm

UE 30-30/60-78 plinth (Illustr. below)
- For use with G 7895/1 and G 7896
- Stainless steel plinth, machine screws onto plinth
- H 300, W 300, D 600 mm

UC 30-90/60-78 plinth (Illustr.)
- For use with G 7892 in combination with G 7895/1 or G 7896
- Stainless steel plinth, machine screws onto plinth
- H 300, B 900, T 600 mm

UC 30-90/70-78 plinth
- For use with G 7882 CD and PG 8535
- Stainless steel plinth, machine screws onto plinth
- H 300, W 900, D 700 mm

Accessories for dispensing process chemicals

Placement of dispensing modules and storage containers either in dispenser cabinet G 7896 on in the existing plinth G 7896 dispenser cabinet

G 7896 dispenser cabinet
Storage cabinet for modules with container for integration in the worktop
- H 850 (820), W 300, D 600 mm
- Compatible with G 7881, G 7891
- Free standing, can be built under
- Cabinet with removable door
- Housing in stainless steel or white
- Internal dimensions: H 530, W 249, D 480 mm
- 3 levels
- Level 1: pull-out drawer on telescopic runners for storage of dispenser modules
- Levels 2 and 3: pull-out drawers on telescopic runners with drip tray and retainer for storage of containers with process chemicals

Drum dimensions
4 at 5 l: 245 x 225 x 145 mm*
2 at 10 l: 140 x 193 x 307 mm
2 at 10 l: 223 x 203 x 321 mm
2 at 10 l: 229 x 193 x 323 mm
2 at 10 l: 194 x 204 x 353 mm
1 at 20 l: 289 x 233 x 396 mm
1 at 25 l: 288 x 234 x 456 mm

DOS K 60/1 dispenser module
- For liquid alkaline cleaners, chemical disinfection agents
- Hose dispenser pump, adjustable via electronic control of the machine
- Integrated dispenser monitoring function for higher process safety according to EN ISO 15883
- Short siphon tube (200 mm) for 5 litre drum incl. fill level monitoring of drum
- Length of supply line: 1.90 m

DOS K 60 dispenser module
- Like DOS K 60/1
- However 300 mm siphon tube for 5 and 10 litre drums (long siphon tube)
- Option: conversion kit (No. 5 45 80 30) for siphon tube (10–30 litre drums) available via customer service

DOS G 60/1 dispenser module
- For use with PG 8535
- For liquid alkaline cleaners, chemical disinfection agents
- Hose dispenser pump, adjustable via electronic control of the machine
- Short siphon tube (200 mm) for 5 litre drum incl. fill level monitoring of drum
- Length of supply line: 1.90 m

DOS G 60 modular dispenser
- Like DOS G 60/1
- But 300 mm siphon tube for 5 and 10 litre drums (long siphon tube)

DOS G 10 modular dispenser
- For use with PG 8535
- For liquid acidic media/surfactants
- Equipped like DOS G 60

DOS NA120
- For use with PG 8536
- Internal bellows dispenser pump incl. ultrasonic dispensing volume control for neutral/alkaline cleaner and chemical disinfection agents
- For subsequent installation by Miele customer service

DOS S 20
- For use with PG 8536
- Internal bellows dispenser pump for dispensing of surfactant or neutralization agents
- For subsequent installation by Miele customer service
- Placing of dispenser modules and storage containers with process chemicals either in dispenser cabinet G 7896 or in an available base unit

* Possible only with dispenser DOS K 60/1 with short siphon tube

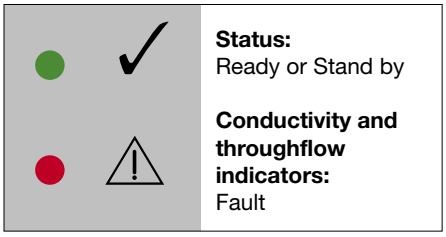
Note
Liquid cleaning agent should be used in the vario TD programme.

Accessories for processing with demineralised water

Illustration shows Miele washer/disinfector with reverse osmosis system RO-190 M2

Notes
** Depending on the mains water quality
** When connecting a reverse osmosis system to a steriliser, the ion exchanger LC 117 always is required to ensure a residual conductivity smaller than 5 µS/cm.
*** Insert an upstream water softener from a mains water hardness of 30° dGH.

Operation and control displays



System solutions from one source
Water quality plays a vital role especially in instrument processing. Mains water contains salt and minerals, which form limescale and can be deposited in the machine and on instruments. Fully demineralised water also helps prevent instrument corrosion. Particularly with high water consumption, the reverse-osmosis systems are an economic alternative to full demineralisation cartridges (see illustration on page 53). Consistent water processing increases the efficiency of the cleaner/disinfector, as the filtration protects against damaging deposits, prevents downtimes, repairs and lowers the cost of cleaning agents.

To complete the system, Miele offers the reverse osmosis RO-190 M1 and RO-190 M2 water purification systems from VEOLIA from one source.

VEOLIA WATER
Solutions & Technologies

Reverse osmosis system RO-190 M2
- For continuous supply of demineralised water
- Output: max. permeate volume 190 l/h*
- Reverse osmosis system in stainless steel unit with door and sump
- Installation of 2 x 5 litre canisters for cleaning agents in the plinth
- 2 LEDs to display status and conductivity/flow rates
- Max. yield approx. 50%
- Salt retention 96–98%
- Water quality approx. 5–100 µS/cm* (depending on mains water)
- RO water connection 3/4"
- Soft water outlet 3/4"
- JG concentrate outlet hose (8 mm)
- Water inlet pressure 2–6 bar
- Electrical connection 230 V/50 Hz
- Connected load 1 kW, fuse rating 10 A
- In-operation indicator lights
- Electricity consumption: 0.6 kWh
- Cold water up to max. 28°C max. hardness for mains water 30° dGH, 15° dKH***
- Reversible door hinging
- External dimensions: H 520, W 600, D 560 mm

Reverse osmosis system RO-190 M1
- For the continuous supply of demineralised water of an RDG and a steriliser **
- Output: max. permeate volume 190 l/h*
- Stand-alone solution for installation in a nearby unit
- Stainless steel housing
- External dimensions: H 380, W 545, D 302 mm
- For further features and technical data see RO-190 M2

Options for RO-190 M1 and RO-190 M2
(Accessories list from VEOLIA)
RO-VB (to be principally included)
- Pre-treatment module to protect the system from contamination

RO branch set
- For the connection of further consumers to the base system

Membrane pressure tank for 8 and 25 litres
- For the connection of further consumers (short-term consumption > 105 l/h.)

RO-LC 117 ion exchanger
- For the reduction of the µS value ≤ 5 µS
- Installation e.g. between RO system and steriliser (4,000 l at 20° dH)

RO adapter for LC 117
- The adapter can be continued to use in case of replacement of the ion exchanger

Accessories for processing with demineralised water

G 7895/1 Aqua Purificator
- For use with G 7881, G 7891
- Storage cabinet for 2 water demineralisation cartridges E 310/E 318
- Integrated conductivity meter
- Generally recommended quality for final rinse < 15 µS/cm
- H 850 (820), W 300, D 600 mm
- Free standing, can be built under
- Housing in stainless steel or white
- Electric connection AC 230 V 50 Hz
- Water connection:
  1 x ¾" cold water screw connection
  1 x connection from cartridge to machine
  2.5–10 bar flow pressure to cartridge
  (pressure loss approx. 1 bar for each cartridge)

E 310 water demineralisation cartridge, full
- Pressurised stainless steel cartridge
- H 570, Ø 240 mm
- Complete with air vent and pressure relief valve
- Filled with 20 litres of homogenous resin which can be reactivated

The amount of water in litres which can be reactivated depends on the total salt content of the mains water supply and on the max. accepted conductivity.

Max. conductivity levels

	5 µS/cm	10 µS/cm
5° dH	4.250	4.500
10° dH	2.125	2.250
15° dH	1.420	1.500
20° dH	1.070	1.125
25° dH	850	950
30° dH	710	750

Figures quoted are guidelines only.

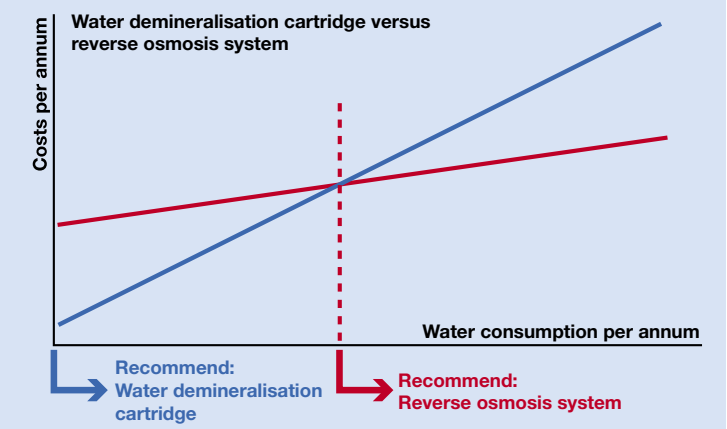
E 318 water demineralisation cartridge, empty
- Can be filled with 20 litres of disposable resin

E 315 disposable resin
- 20 litres homogenous resin for E 318
- Cardboard box with 2 bags of 10 litres each, vacuum-sealed in plastic bags
- Filter bag for replacement

E 316 Filling set
- Plastic barrel with lid and hopper for 30 litre disposable resin

LWM module C conductivity monitor
- For water demineralisation cartridges E 310/E 318
- H 118, W 235, D 110 mm
- Electrical connection for AC 230 V 50 Hz
- 2 hoses approx. 1.9 m,
- ¾"-threaded union
- Integrated conductivity monitor from 0–20 µS/cm
  1.5 µS/cm = tridistillate
  2.5 µS/cm = bidistillate
  20.0 µS/cm = monodistillate

Accessories for processing with demineralised water and soft water



E 313 Wall-mounted tap (above)
- For manual dispensing of aqua purificata
- Pressure hose approx. 1.5 m, pressure tested to 10 bar

E 314 Free standing tap (below)
- For manual dispensing of aqua purificata
- Pressure hose approx. 1.5 m, pressure tested to 10 bar

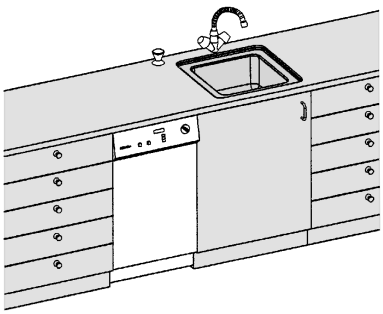
Water demineralisation cartridge versus reverse osmosis system
To ensure gentle treatment of your instruments, Miele recommends the use of fully demineralised water for the final rinse. For this purpose, Miele offers water demineralization cartridges and the reverse osmosis system. The economic use of a demineralization cartridge or of a reverse osmosis system will depend on the number of cleaning loads carried out per day. For higher water consumption, the reverse osmosis system should be preferred over the water demineralization cartridge.

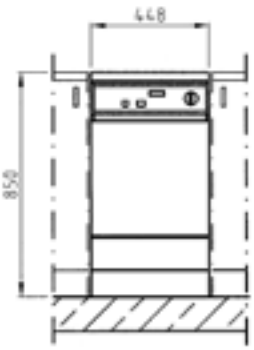
PG 8597 Aqua-Soft system, twin-tank water softener
- For continuous withdrawal of soft water with water hardness of up to 40° dH
- H 570, W 360, D 360 mm
- Weight (without salt) approx. 30 kg
- Standalone unit with rollers, to be filled from above
- External plastic panelling
- Throughput: continuously 19 l/min, max. volume flow 30 l/min
- Volume-controlled two-compartment system
- Currentless operation
- Equipped with 2 containers of resin 4.5 litres each and 1 container for 20 kg of salt
- Water connection:
  2 pressure hoses, approx. 1.5 m, ¾" screw connection
  1 x cold or hot water, max. 70°C
  min. 1 bar flow pressure to system, max. static pressure 8 bar
  2.5 bar minimum flow pressure for appliances without softener
  3.5 bar minimum flow pressure for appliances with softener
  1 x connection from the system to the machine
  2 water drainage hoses approx. 1.5 m (DN 8 for regeneration water and overflow, odour stopper as well as backflow preventer is to be provided by the customer
- Water consumption 19 l /regeneration

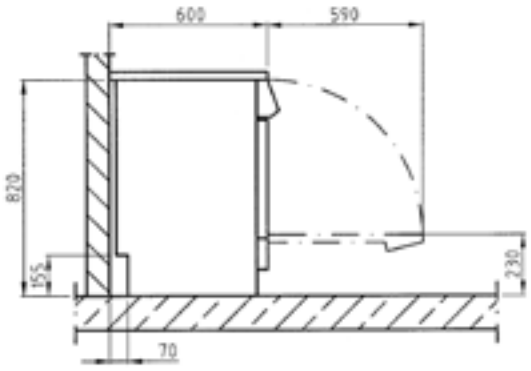
Technical data
G 7831

Cleaner/disinfector	**G 7831**
Front loader with drop-down door, without baskets	•
Freestanding with lid, can be built under a worktop	•
Fresh water rinsing system, max. temperature 93°C	•
Circulation pump, Qmax [l/min]	200
Control/programmes	
MULTITRONIC NOVO med 45, 5 programmes	•
Electric door lock	•
Buzzer to signal end of programme	•
Programme failure check	•
Serial interface for process documentation,	
can be extended to USB, if a PC is connected	•
Plumbing	
1 x cold water, 0.5–10 bar flow pressure (50–1000 kPa)	•
Inlet hose ½" with ¾" threaded union L = approx. 1.7 m	1
Drain pump DN 22, delivery head 100 cm	•
Waterproof system (WPS)	•
Electrical connection	
AC 230 V, 50 Hz, connection cable approx. 1.8 m, 3 x 1.5 mm² incl. plug	•
Heater rating [kW]	3.1
Circulation pump [kW]	0.2
Total connected load [kW]	3.3
Fuse rating [A]	1 x 16

G 7831







Cleaner/disinfector	G 7831
Dispenser system	
1 combi-dispenser/door for powder and liquid agents (rinsing agent)	•
1 dispenser/door for liquid agents, adjustable from 1–6 ml	•
Connection options	
DOS K 60 or DOS K 60/1 for liquid agents	1
Water softener	
For cold and hot water up to 70°C, Monobloc	•
Steam condenser	
Heat exchanger	•
Dimensions, weight	
External dimensions H/W/D [mm] (without lid H = 820 mm)	850/450/600
Wash cabinet dimension H [mm]	560
Wash cabinet dimension W [mm]	O=362, U=380
Wash cabinet dimension D [mm]	O=474, U=505
Weight [kg]	58
External finish options	
White housing, plastic lid (AW)	•
Stainless steel (AE)	•
Conformance	
DIN EN ISO 15883 –1/2, EN 61010-2-40, EN 61326	•
Certificates	
VDE, VDE-EMV, DVGW, MPG CE 0366	•

O = Upper basket, U = Lower basket

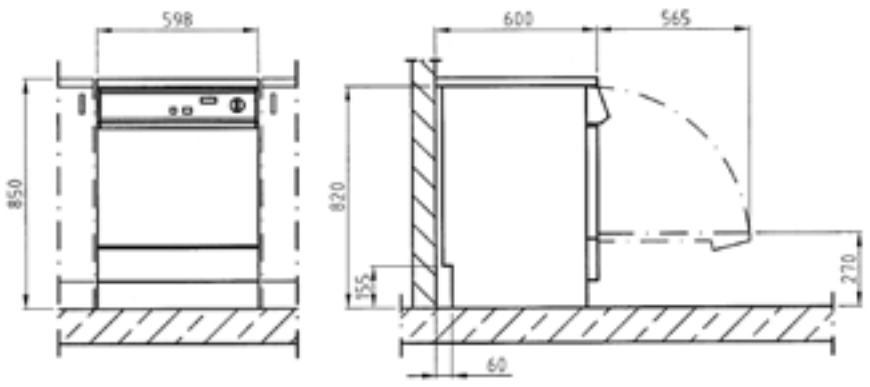
• = standard feature, – = not available

Technical data
G 7882, G 7892, G 7882 CD

Cleaner/disinfectors	**G 7882**	**G 7892**	**G 7882 CD**
Front loader with drop-down door without baskets	•	•	•
Freestanding with lid, can be built under a worktop	•	•	–
Built under/freestanding machine without lid	–	–	•
Fresh water rinsing system, max. temperature 93°C	•	•	•
Circulation pump [Qmax. l/min]	400	400	400
Control/programmes			
MULTITRONIC NOVO PLUS/10 programmes	•	•	•
Electric door lock	•	•	•
Buzzer to signal end of programme	•	•	•
Programme failure check	•	•	•
Serial interface for process documentation,			
can be extended to USB, if a PC is connected	• (depending on model)•		•
Plumbing			
1x cold water, 0.5–10 bar flow pressure (50–1000 kPa)	•	•	•
1x cold water for steam condenser, 0.5–10 bar pressure (50–1000 kPa)	–	•	•
1x AD water, 0.5–10 bar flow pressure (50–1000 kPa)	•	•	•
Number of inlet hoses ½" with ¾" threaded union, l = approx. 1.7 m	2	3	3
Drain pump DN 22, delivery height 100 cm	•	•	•
Water outlet DK (DN 22)	–	•	•
Waterproof system (WPS)	•	•	•
Electrical connection, connection cable approx. 1.7 m, 5 x 2.5 mm²			
3 N AC 400 V, 50 Hz/convertible 2 N AC 400 V, 50 Hz*	•/•	•/–	•/–
Heater rating [kW] (3 N/2 N)	9.0/6.0	9.0/–	9.0/–
Circulation pump [kW] (3 N/2 N)	0.7/0.7	0.7/–	0.7/–
Total connected load [kW] (3 N/2 N)	9.7/6.7	9.7/–	9.7/–
Fuse rating [A] (3 N/2 N)	3 x 16/2 x 16	3 x 16/–	3 x 16/–
Dispenser system			
1 dispenser/door for powder cleaning agents	•	•	•
1 dispenser/door for liquid agents (rinsing agent)	•	•	•
1 dispenser pump DOS 10/30 for liquid acidic agents	•	•	•
1 dispenser pump DOS 60/30 for liquid cleaning agents	–	–	•
Drawer with 2 x 5 litre containers	–	–	•
Connection options			
DOS K 60 or DOS K 60/1 for liquid agents	2	2	1

* programme durations will differ if the machine has been converted

G 7882/G 7892

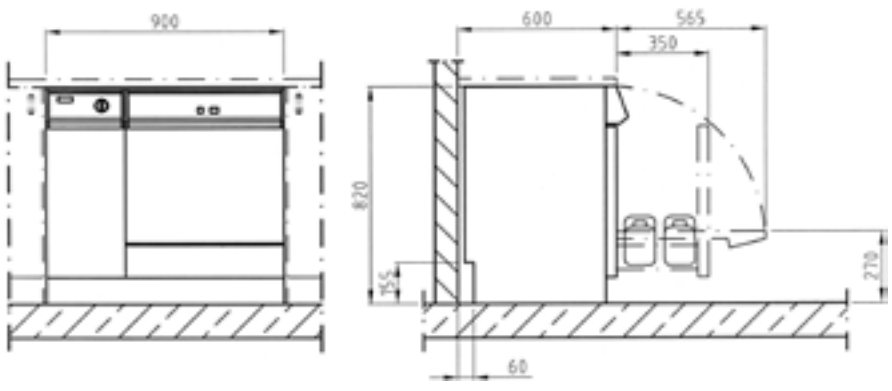


Cleaner/disinfectors	G 7882	G 7892	G 7882 CD
Water softener			
for cold and hot water up to 70°C, Monobloc	•	•	•
Steam condenser			
Heat exchanger	•	–	–
Aerosol injection	–	•	•
Aerosol injection			
Fan [kW]	–	0.3	0.3
Heater [kW]	–	1.8	1.8
Total connected load [kW]	–	2.1	2.1
Air throughput [m^3/h]	–	50	60
Temperature settings in 1°C stages [°C]	–	50–99	50–99
Time setting in 1 min. stages [min]	–	1–99	1–99
Coarse filter class EU 4, filtration rate > 95%, filter life 100 h	–	–	•
Particle filter/Hepa filter H 12	–	•	–
Filtration rate >99.5% (DIN EN 1822)/ filter life 100 h	–	•	–
Particle filter/Hepa filter H 13	–	–	•
Filtration rate > 99.992% (DIN EN 1822)/filter life 500 h	–	–	•
Dimensions, weight			
External dimensions H/B/T (without lid H 820 mm) [mm]	850/600/600	850/600/600	820/900/700
Wash cabinet dimensions H/B/T [mm]	500/535/O=473 U=516*	500/535/O=473 U=516*	500/535/O=473 U=516*
Weight [kg]	72	78	108
External finish options			
White housing, plastic lid (AW)	•	–	–
Stainless steel (AE)	•	•	•
Conformance			
DIN EN ISO 15883 – 1/2, EN 61010-2-40, EN 61326	•	•	•
Certificates			
VDE, VDE-EMV, IP X1	•	•	•
MPG CE 0366	•	•	•
DVGW	•	–	•

*O = Upper basket, U = Lower basket

• = standard feature, – = not available

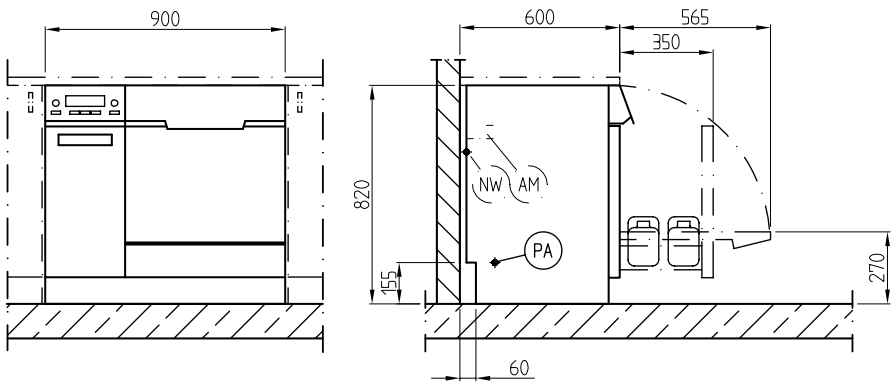
G 7882 CD



Technical data
PG 8535 and PG 8536

Cleaner/disinfectors	**PG 8535**	**PG 8536**
Front loader with drop-down door without baskets	•	•
Built under/freestanding machine without lid	•	–
Freestanding with lid	–	•
Fresh water rinsing system, max. temperature 93°C	•	•
Circulation pump [Qmax. l/min]	400	600
Control/programmes		
PROFITRONIC+, freely programmable	•	•
64 programme slots	•	•
Spray arm sensing	•	•
Sensor system for mobile unit recognition	•	•
Conductivity monitoring	–	Option
Network interface for process documentation software	•	•
Serial printer interface for process documentation	•	•
Remote serviceability	•	•
Electric door lock	•	•
Peak-load cut-out	•	•
Plumbing		
1 x cold water connection, flow pressure	50–1000 kPa	200–1000 kPa
1 x cold water for steam condenser, flow pressure	50–1000 kPa	200–1000 kPa
1 x hot water, flow pressure	50–1000 kPa	200–1000 kPa
1 x demineralised water, flow pressure	50–1000 kPa	50–1000 kPa
Feed pump for pressureless demineralised water	Option	Option
4 inlet hoses ½" with ¾" threaded union, l = approx. 1.7 m)	•	•
Drain pump DN 22, delivery head 100 cm	•	•
Water outlet DK (DN 22)	•	•
Waterproof system (WPS)	•	•
Electrical connection		
3 N AC 400 V, 50 Hz, connection cable approx. 1.7 m, 5 x 2.5 mm²	•	•
Heating [kW]	9.0	9.0
Circulation pump [kW]	0.7	1.2
Total connected load [kW]	9.7	10.2
Fuse rating [A]	3 x 16	3 x 16

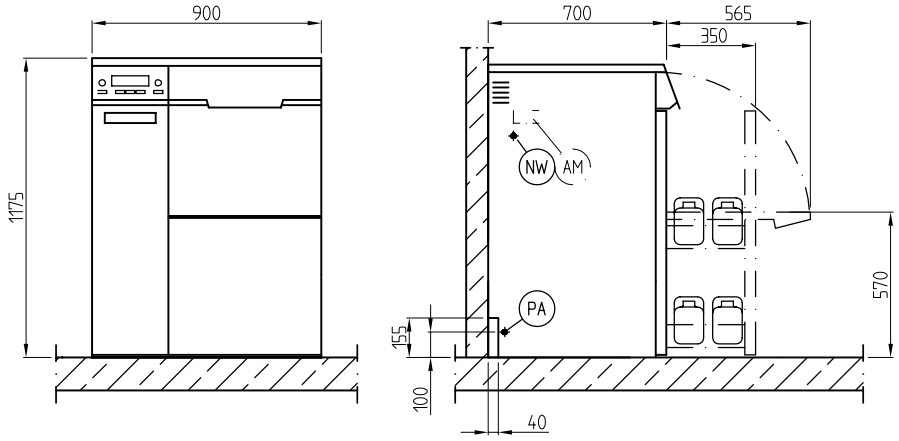
PG 8535



Cleaner/disinfectors	PG 8535	PG 8536
Dispenser system		
1 dispenser pump for liquid acidic agents	• (hose pump)	• (bellows pump)
1 dispenser pump for liquid cleaning agents	• (hose pump)	• (bellows pump)
1 connection for external dispenser module DOS G10 or DOS G60	•	–
Dispenser pump DOS S20 for surfactant, neutraliser	–	Option
Dispenser pump DOS NA120 for disinfectant, liquid cleaner	–	Option
Ultrasonic dispenser volume control	–	•
Drawer for 2 x 5 litre containers	•	–
Drawer for 4 x 5 litre containers	–	•
Water softener		
for cold and hot water up to 70°C, Monobloc softener	•	–
for cold and hot water up to 70°C, large-capacity water softener		
	–	•
Steam condenser		
Aerosol injection		
	•	•
Drying unit		
Fan [kW]	0.3	0.3
Heater [kW]	2.3	2.3
Total connected load [kW]	2.6	2.6
Air throughput [m^3/h]	60	60
Temperature settings in 1°C stages [°C]	60–115°C	60–115°C
Time setting in 1 min. stages [min]	1–240 min	1–240 min
Coarse filter EU4, filtration rate > 95%, filter life 100 h	•	•
Particle filter/Hepa filter S class H 13,		
Filtration rate > 99,992% (DIN EN 1822), filter life 500 h	•	•
Dimensions, weight		
External dimensions H/B/T [mm]	820/900/700	1175/900/700
Wash cabinet dimensions H/W/D [mm]	500/535	500/535
	O*=473, U*=516	O*=473, U*=516
Weight [kg]	114	177
External finish		
Stainless steel (AE)	Stainless steel	Stainless steel
Conformance		
DIN EN ISO 15883-1/2, EN 61010-2-40, EN 61326	•	•
Certificates		
VDE, VDE-EMV, MPG CE0366, IP20	•	•

*O = Upper basket, U = Lower basket • = standard feature

PG 8536



2 Sterilisation

The Miele benefit – now also for sterilisation

Miele Professional – innovative market leader with efficient cleaner/disinfectors for surgeries and hospitals – now presents an own, new developed B-class steriliser: PS 1202B. Miele Professional thus becomes the system provider for the overall instrument cycle. Cleaning and disinfection, sterilisation, documentation and service – for the first time with the benefit "All from one company": **System4Med.**

This Miele system solution is a development which strongly focuses on economic efficiency. It reduces costs and achieves safe, reproducible results both for simple and very sophisticated applications.

The benefit from Miele Professional ist he high competence and experience in the entire range of medical instrument processing – gained in decades of intense collaboration with circles of hygiene experts, with scientists and practically oriented users.

The sterilisation process was further developed based on the fractioned prevacuum procedure. In conjunction with the fully developed technology, this offers very safe sterilisation procedures and a highly efficient technology. At the same time, the small Miele steriliser achieves very short batch cycles from 21 minutes for a class cycle – drying included.

The benefits in practice:

- Safe sterilisation processes for all instruments and for poriferous goods
- Very short process times
- Very good drying results
- Intuitive operability
- Integrated water processing
- Simple, service-friendly appliance design

The new small steriliser PS 1202B

Fast
With its fast sterilisation process, the new PS 1202B takes on a top position among the small sterilisers. The QUICK-START function additionally saves time in daily use of the appliance – and the widespread Miele service also is quickly available, if required.

Dry
The powerful vacuum pump achieves an underpressure of approx. 20 mbar absolute pressure. This performance allows for efficient removal of air from the steriliser chamber and the goods to be processed. The heating of the entire surface of the chamber – an equipment technology patented by Miele – at the same time provides for excellent heat distribution. The extensive heat radiation and the high vacuum performance contribute to thorough and fast drying of the sterilized goods before withdrawal.

Safe
With its steam-heated, double-wall pressure tank, the design of PS 1202B is like a large-scale steriliser. Its elaborately developed equipment technology ensures optimum temperature distribution inside the chamber for safe sterilisation of the instruments. The serial interface offers the option of process documentation and therefore additional safeguarding of the work process.

Reliable
The display is easily readable and allows for safe operation and process control of the different application and test programmes. The programmes are completely adjusted to the special requirements of medical practice. Other advantages of the small Miele steriliser include the low noise level and simple handling, the variable chamber insert for different tray heights and the electric door lock. The service-friendly design makes the PS 1202B a low-maintenance and reliable appliance.

Design
- Table-top model
- For installation from 500 mm depth of table top
- Exterior dimensions H 533, W 565, D 580 mm
- Sterilisation chamber Ø 250 mm, length 400 mm
- Electrical AC connection 230 V, 50 – 60 Hz, 16 A
- Fixed water connection with water inlet and outlet hose

Exclusive to MIELE

Technology
- Double-wall pressure tank for
- simultaneous steam generation and pre-heating of the sterilization chamber
- Integrated system for water processing (reverse osmosis system)

Programmes
- 121°C Universal: 33 min.
- 134°C Universal: 21 min.
- 134°C prions: 35 min.
- Helix B&D test: 14 min.
- Vacuum test: 23 min. (total time with drying, load-dependent)

User convenience
- Simple display operation with function keys
- Electric door lock
- Holder rotatable by 90° for 6 trays or up to 3 containers
- Service-friendly equipment design by easily accessible components

Safety and efficiency
- Interface to process documentation, can be extended to USB with direct PC connection
- Conforms to the European Medical Devices Directive
- Results can be reproduced, processes can be validated
- Process results are shown on the display
- Safety devices according to DIN EN 13060

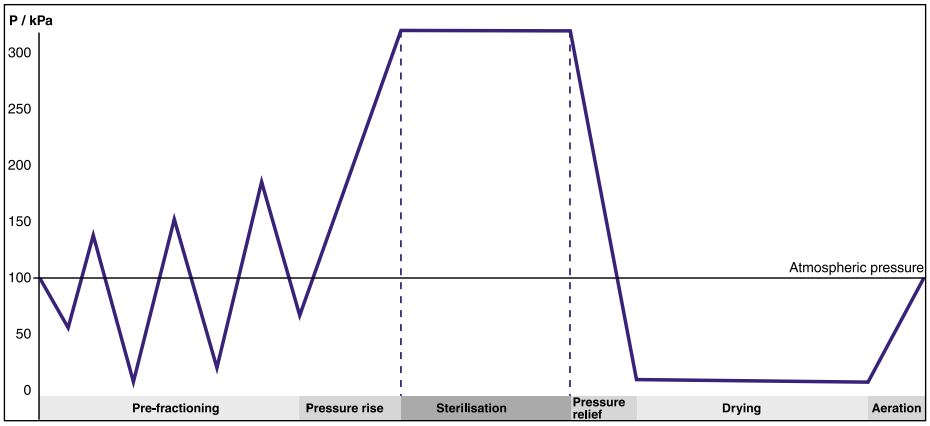
Accessories (standard)
- ZS 110 tray holder 6/3 for processing of 6 trays or up to 3 containers, maximum height per container 48 mm
- ZS 131 tray, 3 pcs.
- Tray handle for safe extraction of the trays after process release

ZS 111
- Tray holder 6/2 for 6 trays ZS 131
- or 2 containers up to a max. height of 65 mm

ZS 131
- Tray
- H 20, W 190, D 290 mm

Helix test ZS 150
- Process control of the small steriliser by checking the steam penetration by means of a chemical indicator
- Display of the result by colour change
- 1 test object, 150 indicators

Small steriliser	PS 1202B
Table-top model with chamber door opening to the left side	•
Steriliser with fixed water connection	•
Type class according to DIN EN 13060	class B Steriliser
Charging of instruments	max. 6 kg
Charging of textiles	max. 2 kg
Control, programmes	
121°C Universal	•
134°C Universal	•
134°C prions	•
Helix B&D test	•
Vacuum test	•
Electric door lock	•
Serial interface to process documentation,	
can be extended to USB with PC connection	•
Plumbing	
1 x cold water, 1.5–10 bar flow pressure (150–1000 kPa)	•
Inlet hose ¾" screw connection, L = approx. 1.5 m	1 x
Outlet hose, L = approx. 1.5 m	1 x
Waterproof system (WPS)	•
Electric connection	
AC 230 V, 50 Hz, supply cable approx. 1.5 m, 3 x 2.5 mm² incl. plug	•
Total connected load [kW]	3.2
Fuse rating [A]	1 x 16
Water processing	
Reverse osmosis system with preliminary filter	•
Dimensions, weight	
Exterior dimensions H/W/D [mm]	533 / 565 / 580
Installation	table-top from 500 mm
Chamber dimension Ø [mm]	250
Chamber dimension D [mm]	400
Chamber volume [L]	20
Weight, unloaded [kg]	63
Conformance	
DIN EN 13060, EN 1717, EN 61010-1, EN 61010-2-040, EN 61326-1	•
Scope of delivery	
Inlet and outlet hose, mains supply cable, ZS 110 tray holder 6/3, ZS 131 tray (3 pcs.), tray handle	•



Programme cycle 134°C Universal

The process management in the small Miele steriliser PS 1202B ensures optimum steam penetration of the processed goods with short cycle times.

3 Documentation

Safety
by provable processing results

The documentation of instrument processing ensures consistent monitoring and final evaluation of the processing procedure. This is a significant gain in quality for the patient and for the surgery team. Last, but not least, the careful documentation of successful processing also means legal security.

Miele Professional now for the first time offers an in-house complete solution for process documentation in the scope of the **System4**Med. The key element is the documentation software **Segosoft Miele Edition.** Depending on customer preference and surgery situation, it can be used to realise various solutions for documentation. The Miele devices and the software is carefully coordinated, allowing for perfect interaction.

System4Med

Segosoft®
Miele Edition

The user-friendly **Segosoft Miele Edition** provides for exactly traceable and safe documentation of processing in the cleaner/disinfector, small steriliser and sealing device. The retraceability is possible via recording of process protocols as well as temperature and pressure curves, which the devices put out via an interface out with each program cycle. Next to such process data, daily but also batch-related routine inspections can be documented. This is a convincing benefit towards manual documentation with standard work instructions.

In addition, there is the documentation of due maintenance. For example, a user can change a filter and subsequently record the change which was due. The documentation thus significally contributes to quality management in surgery and clinic.

Digital documentation
The documentation of instrument processing is subject to a retention period of up to 30 years. Therefore, paperless documentation also prevents the growth of piles of files. This particularly applies, since the legislator with the advanced digital signature created the option to sign documents legally binding. This digital signature discloses subsequent changes made to a document and therefore protects against manipulation.

The documents are created by the **Segosoft Miele Edition** in the PDF/A-1 format according to the standard ISO 19005-1:2005. This format was specifically developed for long-term archiving and ensures long-term data extraction. The digital signature is prepared electronically with user name and password and requires no additional signature hardware. Compared to memory card solutions with conventional office programmes, the **Segosoft Miele Edition** therefore sets standards for **manipulation safety** and legal acceptance.

Documentation – made simple
The **Segosoft Miele Edition** convinces by low time effort, simple operation and therefore by efficiency.
When the Miele cleaner/disinfector or the small steriliser is started, the software automatically records all relevant data of the processing cycle. After unloading and visual inspection of the instruments, the user can evaluate the processing on the computer by clicking the mouse twice and subsequently release it with user name and password. The release process does not even take 10 seconds.

Legal security
In case of an accusation resulting from medical treatment, the so-called shiftening of the burden of proof will apply: The attending physician and/or the clinic has to prove that the instruments were hygienically processed (up to 30 years). Based on consistent and comprehensible documentation of the hygiene measures, this proof can easily be made and corresponding accusations in court can be refuted. Therefore, the Miele software provides legal security and allows compliance with the RKI guideline and medical devices directive (MPBetreibV).

Options for process documentation

The documentation of instrument processing can be realised in different ways depending on customer preference or surgery situation.

1. Electronic documentation:
Direct connection to a computer
Cleaner/disinfector and/or small steriliser is directly connected to a computer with installed documentation software via cable (up to a length of 13 m). This can be a computer (Netbook, Laptop, PC) in the hygiene room or an already existing PC in an adjacent room. Devices with serial interface can be easily connected via an USB serial adapter.

- Short ways and simple handling by on-site batch release in the hygiene room
- Most flexible solution for the connection of two or more devices in the hygiene room
- Automatic data transfer from the device to the software
- Digital archiving

2. Electronic documentation:
Network connection
Cleaner/disinfector and/or small steriliser is connected to a computer with installed documentation via the surgery-internal network, e.g. to a central PC at the reception desk. The network integration of the devices with their serial interface is accomplished via network modifier.

- Use of an existing surgery computer
- Automatic data transfer from the device to the software
- Digital archiving

Segosoft®
Miele Edition

3. Electronic documentation via USB-Stick
Intermediate storage of process data from cleaner/disinfector or small steriliser via USB stick, which is subsequently read out in the documentation software.

- Less effort for computer and network infrastructure
- Use of an existing surgery computer
- Digital archiving

4. Process documentation via printer
The process data is put out via printout in the hygiene room. The printouts are filed for archiving.

Comparison of documentation options

	Direct PC connection	Network connection	Documentation via USB	Printer
Documentation: process protocol	•	•	•	•
Documentation: temperature/pressure curves	•	•	•	–
Documentation: routine checks	•	•	–	–
Documentation: maintenance	•	•	–	–
Simple digital signature	–	–	•	–
Advanced digital signature with reference to user	•	•	Option	–
Manual release by signature	–	–	•	•
Digital release with user/password	•	•	Option	–
Comfortable by short ways in the surgery	+++	++	++	+++
Paperless data filing	•	•	•	–
Backup function for data storage	•	•	–	–
Preparation of sterile goods labels	Option	Option	–	–
Legal security	•	•	•	•
Purchase price	+++	++++	++	+

• = available – = not available + = Evaluation scale

Segosoft Miele Edition – Products and accessories

Segosoft Miele Edition
Process documentation software for direct PC connection or network connection

Software package “Comfort Plus” with extended functions:
- Documentation of process data, routine checks, maintenance
- Advanced digital signature with user reference in the PDF document.
- User-related release of process protocols with user name and password
- User administration for any number of
- User names/passwords
- Backup function for automatic data storage

Scope of supply:
- Software CD, software package: Comfort Plus, installation manual
- License card for 1 device
- Option: additional license for more devices
- Free support
- Installation support by phone for 30 days, software installation and instructions

Devices suitable for connection:
- Serial connection: max. 4 devices Network connection: any number of devices

Connection cables to be ordered separately

Segosoft Miele Edition/USB solution
Process documentation software for data transfer via USB stick

Software package “Comfort” with basic functions:
- Documentation of process data
- Simple digital signature
- User-related release on attached signature pad
- Option: software upgrade to
- “Comfort Plus”, e.g. for digital release with user name and password, for other functions see software package: “Comfort Plus”

Scope of supply:
Complete package for 1 device
- Software CD, software package: Comfort, installation manual
- USB stick
- USB data logger module Dimensions (H x L x W): 35 x 118 x 85 mm, incl. 230 V mains adapter, 1.8 m mains cable
- Serial interface cable for connection of device and data logger (cable length: 3 m)

Devices suitable for connection:
- max. 1 device
- Option: connection of up to 5 devices possible by software upgrade to “Comfort Plus”

Network converter Net500
Network converter Net500 for the connection of devices with serial interface to a surgery network, conversion of serial data RS232 to network data (TCP/IP)

Scope of supply:
- Network converter Dimensions (H x L x W): 37 x 132 x 102 mm incl. 230 mains adapter, 1.4 m mains cable

Protocol printer PRT100
Printer for process protocols, ink-jet printing with waterproof ink

Other accessory components
Miele provides cables adjusted to the connection from device to PC. Miele provides advice and assistance for the selection of the appropriate software as well as hardware.

Segosoft®
Miele Edition

Quick labelling with Segolabel Miele Edition

Software for sterile goods labelling
Labels for identification of packed sterile goods can be prepared in in a short period of time with the software **Segolabel Miele Edition.** After sterilisation, the labels are prepared with a special printer and include batch number, date of preparation and expiry date as well as the name of the responsible employee in the surgery. Information on the content of the package can be entered on request. Bar code marking will later allow for quick allocation of process data to patient data and therefore provides traceability of processing to the patient.

Segolabel Miele Edition:
Starter kit
Complete package with software and hardware for the preparation of sterile goods labels. It is recommended to use **Segolabel** in connection with the **Segosoft Miele Edition.**

Scope of supply:
- Software CD, installation manual
- Label printer PRT200
  incl. mains adapter (cable length: 3.8 m) and USB cable (length: 2 m)
- 1 label roll with 1,000 labels and colour transfer tape (both also available from Miele as accessories)

4 Guarantees

Miele sales office and factory customer service – the all-round service benefit

Miele cleaner/disinfectors and small sterilisers set standards for instrument processing in surgery and clinic. The customer-oriented Miele sales office and the factory customer service with its widespread, fast “on-site service” ensure an all-round service, which completes the **System4**Med.

System4Med

Good advice from the beginning
The Miele sales office offers comprehensive consultation service already before installation of the devices. Our specialists help you in the selection of the devices which are suited best for the particular surgery and will also carry out comprehensive economic efficiency calculations. On request, Miele also offers customised financing options.
- Advice for the selection of devices
- Economic efficiency calculations
- Attractive financing options

All-round services from one source
Miele supports the surgery with comprehensive services already when the new unit is delivered. From the very beginning, these services are rendered by thoroughly trained medical product technicians.

Your benefits:
- Quality service with short response times by a widespread network of Miele medical product technicians (e.g. in Germany more than 150 technicians)
- Short travel times and an “on-site service” is ensured within 24 hours
- Professional advice in application technology
- 90% of the service cases are completed immediately on the first visit
- Safe spare parts service (even 15 years after end of production for essential original spare parts)

Individual service contracts
The Miele service contracts provide for the inspection of your Miele appliances by the specially trained Miele factory customer service. Function and safety of all important components are analysed. This allows for early recognition of failures, for exchange of spare parts in due time and ensures the availability of your devices. The risk of breakdown is therefore significantly reduced.

The inspection, maintenance and servicing contributes to the conservation of value for your devices and thus to protect your investment.

Miele offers you the following service contracts:

Inspection contract
The inspection contract includes the following services:
- Annual inspection incl. target-performance comparison
- Detailed assessment and documentation of the technical condition
- Inspection of the maintenance condition
- Electric safety inspection
- Thermo-electric inspection

Preventive inspection contract
In addition to the services of the inspection contract, the preventive inspection contract includes the following services:
- Comprehensive maintenance according to the device-specific Miele service schedule
- Offer for further preventive and repair measures
- Preventive exchange of defines wear parts
- Required safety inspections

If additional repair work should be necessary, this will be charged separately.

Comprehensive maintenance contract
The comprehensive maintenance contract allows for particularly safe cost calculation. In addition to the services of the preventive inspection contract, it covers the costs of all required repairs. Both the costs of wear and spare parts and the cost of labour and travel of the Miele service technicians are covered.

Validated performance
Furthermore, Miele offers a number of process inspections, which are carried out by qualified Miele service technicians according to the statutory and normative requirements as well as country-specific recommendations.
- Initial validation, including
- Qualification for installation, operation and performance after the installation of the device
- Revalidation (performance requalification) normally every 12 months or following a maintenance, repair or after changing the installation or operation parameters
- Performance tests of the cleaner/ disinfectors considering the fact that mostly semi-critical instruments are processed in medical practice and clinic

The medical associations and the responsible inspection authorities provide information, which particular inspection will be sufficient.

It is not without reason that since years, the Miele factory customer service is awarded top ratings for excellent service (annually evaluated by ServiceBarometer AG, Munich).

Innovative and future-proof: Miele remote service

In medical facilities, mayor focus is put on maximum availability, economic efficiency and security of results.

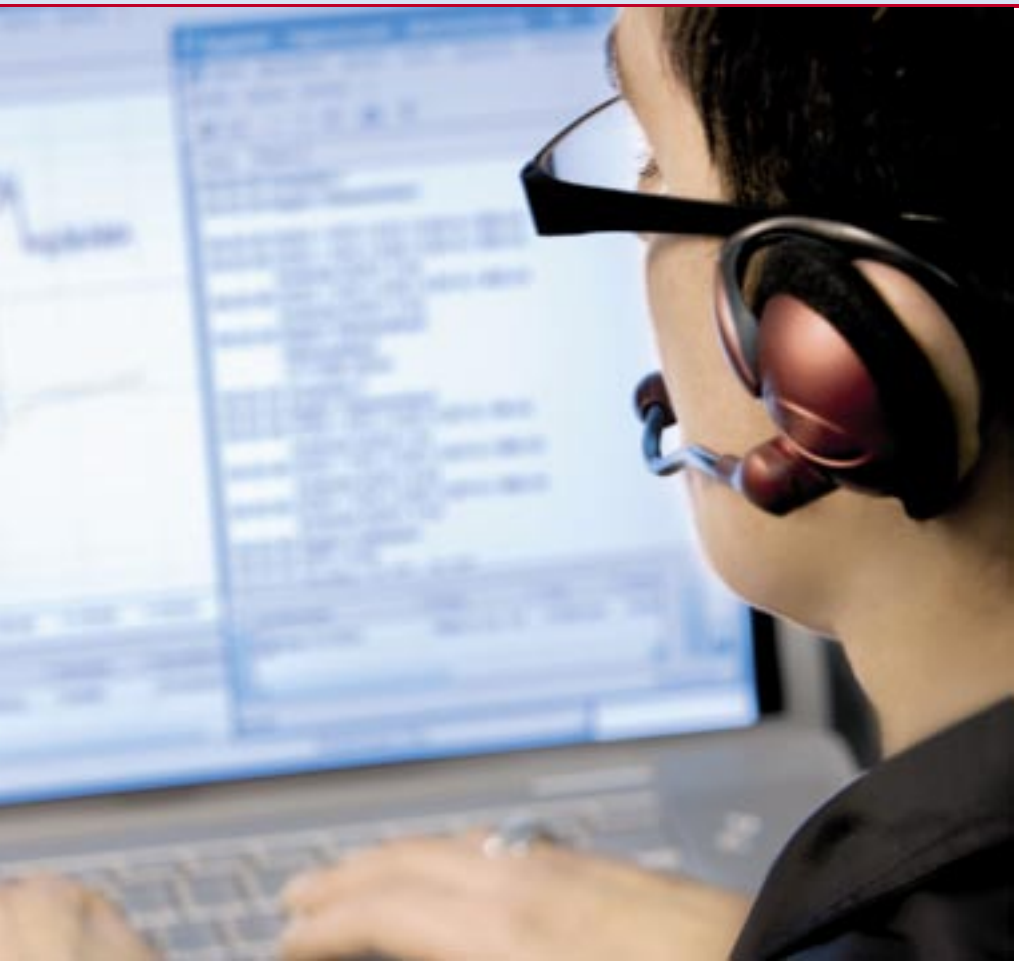
Miele Professional offers a perfect solution for this: service contracts with the additional feature of the **Miele Remote Service** – the online connection to the Miele factory customer service.
Miele provides the module Remote Service Assistant, which is used by a Miele technician to establish a remote connection to the Miele cleaner/disinfector with PROFITRONIC or PPOFITRONIC+control and to use the Miele diagnosis software from a distance. Examples of practical scenarios is the analysis of technical problems as well as the change of programme parameters to the transmission of complete programmes.

An additional function of the remote service module is the automatic status message of the mnachine in case of failure via e-mail, fax or SMS to the customer and/or the Miele service.
The opportunity to analyse the initial diagnoses already from remote directly after ocurrence of a failure allows for the initiation of further steps to solve the problem faster and more targeted.

Remote service module
RSA (Remote Service Assistant)
- Enclosure for wall installation
- Connection via RS 232 interface for up to 6 Miele devices
- Ethernet connection
- Available design variants: analogue, GSM (ISDN on request)
- Dimensions: W 217 mm, H 130 mm, D 85 mm
- Weight: 650 g

The remote service module complies with the R&TTE directives and has the CE and VDE test label.

Requirements for installation
Appropriate telecommunication connections are required for the application of RSA in analogue and ISDN configuration. Sufficient network availability should be ensured for the GSM variant. Your Miele service technician will gladly coordinate on site the installation suitable for your demand.



Remote service offers you unbeatable benefits:
Increased availability by reduced downtimes and therefore increased economic efficiency

Remote service – Economic efficiency
- Remote status check of the unit by specially trained Miele service technicians prevents downtime of the Miele Professional device
- Remote support in case of unexpected problems and troubleshooting, thus prevention of field assignments by Miele
- Increased efficiency for on-site assignment by targeted provision of required spare parts
- Optimised use of energy, water and chemicals

Remote service – Quickness
- Quick automatic notification to Miele and/or to your personnel in case of failure via e-mail, fax or SMS stating the error number
- More efficient communication for failures and errors in case of service
- Assurance of quick error analysis in case of problems for the initiation of targeted measures by Miele
- Nevertheless, should an on-site call be necessary, the Miele service technician already has valuable information on type and scope of the failure

Remote service – Safety
- Increased safeguarding against failure and prevention of unnecessary repairs by regular check, also from remote, and preventive maintenance in the scope of a service contract
- Documented safety by intermediate storage of process protocols in the remote service module, which subsequently can be reprocessed in downstream documentation systems

Remote service – Flexibility
- Devices always are state-of-the-art by adjustment of the equipment controls up to complete updates

Remote service – Ability for planning
- Service costs can be planned by the combination of remote service with preventive inspection contracts or comprehensive maintenance contracts
- Fixed lump-sums for the provision and commissioning of the remote service module by Miele

Remote service – Investment in the future
With remote service you are fit for the future. Whether adjustment of the equipment control or complete updates – you will always have state-of-the-art technology.

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