

Setting the New Standard



Laboratory Glassware
Washing Systems





Forever Better

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Over 100 years ago Miele was founded on the philosophy “Forever Better”. For more than a century this simple statement has remained the core value of Miele. Today, with nearly 15,000 employees worldwide, this family owned German company has never deviated from its founding philosophy.

Miele’s long history in cleaning expertise includes development of the world’s first tub washing machine in 1900, Europe’s first electrically powered dishwashers in 1929, and the world’s first computer controlled dishwashers in 1978. Today, the company continues to lead the way in development of incomparable appliances.

Respected worldwide as a high-quality manufacturer, Miele is noted not only for exceptionally engineered products, but also for top-notch technical service, knowledgeable sales support, and application expertise. “Forever Better” is more than just a slogan, it is a commitment to constant improvement. This improvement extends to products, processes, service, employees, application expertise and customer support.

Generation G78 Laboratory washer-disinfectors are just one more example of Miele standing by its core philosophy. Miele critical cleaning systems are already highly regarded by pharmaceutical companies, universities, water treatment plants, dental practices, hospitals, and biotechnology companies throughout the world. The G 78 series represents another step forward in the ongoing commitment to “Forever Better”.

Generation G 78

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Improvements in analytical instrumentation have enabled today's researcher to work to more and more precise levels. As accuracy has increased, so also has the requirement for "proof" that the research process itself is valid. As a result, organisations are faced with documenting and validating equipment and processes that never were questioned in the past.

With this in mind, Miele has focused on meaningful product enhancements for today's laboratory. Dual temperature sensors, validation test ports, printer connections, and audio-visual alarms, are a few examples of improvements that address the need for accurate, valid, and documented results.

The G 78 series from Miele represents more than 100 years of cleaning expertise focused in on laboratory applications for the 21st century.



Validation

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Miele understands that industries such as pharmaceutical, biotechnology, and medical device manufacturing require strict documentation and verification to ensure that all equipment is installed, operating and performing according to specifications. Designed with this in mind, Miele washer-disinfectors include many features to simplify the validation process and ensure optimal performance. Depending on the model, some of these features are test ports for easy chamber access; RS-232 ports for monitoring all process parameters; and alarms to alert the operator of any error conditions. Miele also offers validation documentation and execution services. The documentation package is an extensive, step-by-step guide through installation and operational qualification. Documents are designed in such a way that qualified validation engineers can perform the validation with minimal assistance from Miele.

The installation qualification (IQ) section ensures that the machine is installed perfectly. All connection requirements are clearly defined and ample space is provided for comments, corrective actions, and sign-offs for each step. The operation qualification (OQ) section provides an extensive guideline for verifying that your washer-disinfector is operating correctly. It includes clearly stated methods for testing process parameters and error conditions in a safe way for both the validation engineer and the equipment. Because customers have different residues and must determine for themselves the level of cleanliness required, Miele does not provide an off-the-shelf performance qualification document. Miele can provide you with assistance in this process or direct you to independent validation experts that are trained in both cleaning validation and Miele washer-disinfectors.

Miele Service technicians are fully trained in the validation of glassware washers. A Miele technician can perform the complete execution of the validation on-site, in cooperation with your validation team. Every test is executed professionally and safely, progress is communicated throughout, and sign-offs are coordinated with your staff. All instruments used in the validation are calibrated with certificates available for your reference. If preferred, Miele can also recommend third party validation experts that are fully trained on the Miele equipment.

Service and Support



Building a relationship

When you purchase a Miele Glassware Washer-disinfector, you get not only a superior washing system, you also receive the expertise and backing of service and support personnel nationwide. Miele is committed to providing prompt, professional support before, and after the sale. Our technicians always work to ensure the highest levels of satisfaction for each and every customer.

Our unique offering of reliable and consistent service helps Miele stand out as one of the industry's service and support leaders.



From start...

Miele washer-disinfectors are provided with simple to follow, concise instructions. Service documentation, spare parts lists, and detailed installation information is also available with a simple call. All systems come with a start-up package illustrating utility connections to pre-run lines, assembly of baskets, and priming / setup of detergent and water softening systems. User training is also provided by your Miele representative to help ensure optimal system performance.



to finish

Every purchase of a Miele product includes the added bonus of lifetime telephone support. Our team of expert Technical Support Representatives is available to answer your questions and arrange service as necessary. Should service be required, Miele maintains an extensive parts inventory, and in most cases, parts can be shipped out within one day. To ensure continued support for older units, Miele maintains parts inventories for 15 years after a model is discontinued.

Over a century of tradition, pride, and excellence anchor Miele's commitment to world-class service and dependable support. Simply stated, your peace of mind is our top priority.

The machine processing of instruments in all Miele washer-disinfectors offers high levels of reliability, performance and economy

Multitronic Novo Plus

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Miele's new Multitronic Novo Plus control is a powerful, easy to use system that provides quick access to all programme functions and indicators. It features eight wash programmes with adjustable temperatures, holding times, and rinse steps. Programme selection is made using a single, easy-to-use dial so an operator can work the machine even when wearing bulky protective gloves.

The eight standard wash routines are ideal for the vast majority of cleaning applications. Should your cleaning application require special attention, a custom programme slot is available for the addition of a wash routine with customised parameters. Our application specialists will work with you to guarantee the best programming for your specific needs.

The Multitronic display and alert system has been designed to provide clear and concise indication of all machine actions. The LED numeric display can be toggled to clearly display wash temperature, programme step or time elapsed. At a glance, the programme sequence indicators clearly show what stage the programme is currently in. Completion of the wash programme is indicated both on the display and acoustically with the included buzzer, helping alert staff when the glassware is ready. System malfunctions, such as drain or fill errors, are signaled both visually, and audibly using the error fault lights and buzzer.

This control system is featured on models:

- G 7883
- G 7883 CD

Profitronic

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Miele's Profitronic control system offers unprecedented levels of programmability in a powerful, user-friendly interface. Eleven standard cleaning, and eight standard utility programmes cover the majority of cleaning tasks. Memory is available for storage of up to 45 additional customised programmes.

Pinpoint control over all programme parameters, including time, temperature, detergent / neutraliser dosing, and drying makes this system ideal for even the most challenging cleaning applications. Should your cleaning application require special attention, our application specialists will work with you to guarantee the best programming for your specific needs. The Profitronic system's built in relays allow the unit to interface seamlessly with many external components helping the washer integrate into large facilities. Some examples include visual or audible signal systems, external detergent dispensers, or HVAC system switches.

The 4-line, full-text navigation display with selection of six languages makes direct programming simple, and an optical interface allows programming and archiving on a PC, or laptop. Using the optional internal printer module, or an external printer via the on-board RS-232 port, the Profitronic system can accurately document all programme parameters including:

- Date / Machine Number
- Programme number, name, start, and end times
- Detergent concentration, dispensing temperature, pump status
- Achieved water temperature with time stamp
- Faults / User Interventions

This documentation is crucial in both process control, and validation.

A four-level security system allows strict control over machine access. The following levels can be selected:

- Access only to predetermined programmes. This can help ensure accuracy when an SOP is used.
- All programmes accessible.
- Automatic Mobile Unit Recognition System. This level is the ultimate safeguard, allowing only the programme specified on the magnetic basket-coding strip to be run.
- Full access, including all programming functions.

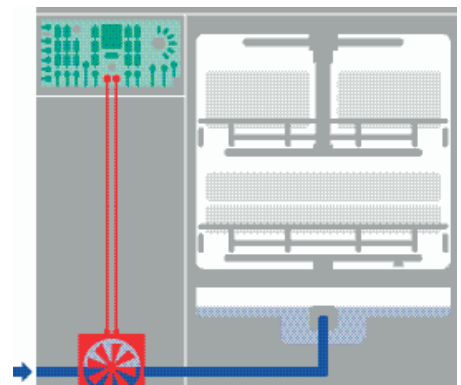
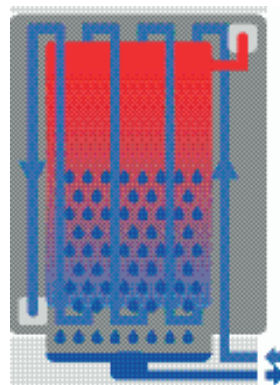
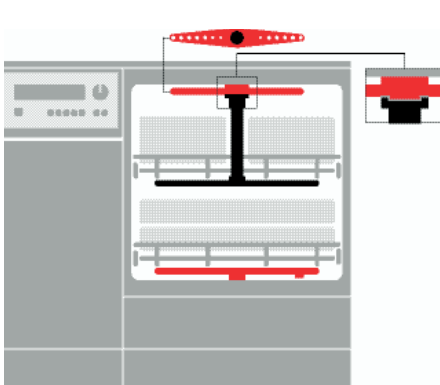
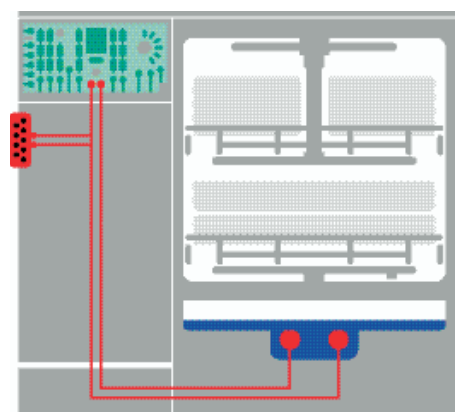
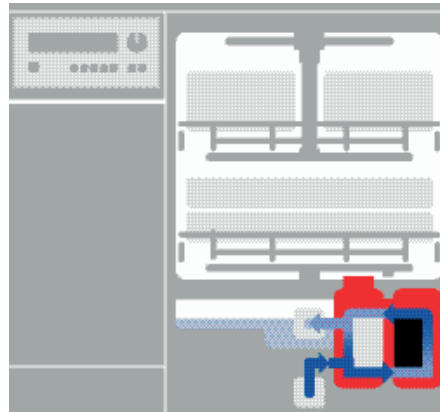
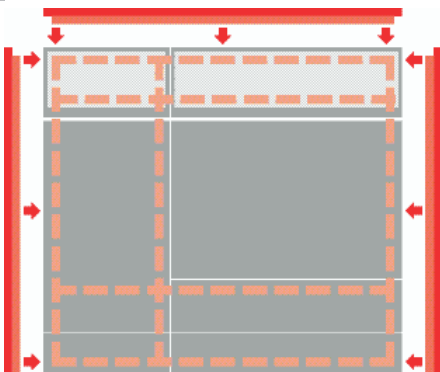
This control system is featured on models:

- G 7835
- G 7825 / 26
- G 7827 / 28



Innovative Features on all G78 Undercounter Units

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- Spaceframe construction provides low noise levels, durability, and energy efficiency. Double wall construction reduces heat loss. Removable side panels allow for easy service access and disassembly at end of machine life for recycling.
- Addition of a top spray arm provides even more thorough cleaning. Both the top and bottom spray arms feature optimally arranged jets to help reduce water consumption while allowing 99% of circulation capacity to be available for cleaning. Addition of a standard upper basket gives the unit a total of three spray arms.
- The new "Monobloc" water softener design is more efficient, and easier to use. 50% less salt is used than in previous models. The "reactivation" programme has been eliminated, as the unit performs a reactivation automatically when needed. The operator simply adds salt when required.
- The G 7883, G 7883CD and G 7835 washers include steam condensers to eliminate release of steam or potentially harmful vapours into the laboratory. Units do not need to be connected to building ventilation systems.
- A new electronic door lock provides for safety and control by preventing the door from being opened during a cycle. Users are protected from hot or contaminated wash water, and elimination of tampering helps guarantee completion of the wash protocol. In the event of a power failure, the lock remains in place, and the cycle automatically resumes when power is restored.
- Miele's Waterproof System helps to ensure lab safety by monitoring the intake lines, and drip tray for leaks. If a leak is detected, the current programme (if any) is cancelled, the drain pump is activated and the water valves are shut down.
- Flow meters on incoming water lines allow for precise control and validation of water levels, and allow less water to be used in certain steps. Exact water control also ensures pinpoint water to cleaning agent ratios. A float switch acts as a backup to guarantee adequate water levels in the chamber.
- Dual temperature sensors in the sump help guarantee that all required wash and rinse temperatures have been met.
- A validation test port allows easy monitoring of chamber conditions during the wash cycle.
- An improved alert system provides both visual, and acoustic indication of programme completion, and errors. This alert helps save time by clearly alerting wash personnel to any of these conditions.

G 7883

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WRAS
APPROVED
PRODUCT



The Miele G 7883 is designed for general glassware cleaning within the laboratory. Remarkable flexibility, easy operation, and brilliant cleaning results make this unit a favourite with small and large companies alike.

Models available

G 7883AE – Stainless steel exterior

Construction

- 304 grade brush finished stainless steel exterior and 304 / 316 (door, and chamber floor) grade stainless steel chamber for superior corrosion resistance.
- Full external cabinet allows freestanding or undercounter installations.
- Direct basket coupling system to water feed allows for efficient water usage, and maximum basket flexibility.

Control System

- Multitronic Control System featuring eight standard programmes and one custom programme slot. See page 8 for details.

Circulation System

- 400 litres per minute circulation pump provides superior cleaning power.
- Unit includes upper and lower standard spray arms (addition of an upper basket adds a third).
- “Fresh Water System” intakes fresh, clean water before each cycle. Unit is plumbed to hot, cold, and purified water lines.
- A circulation speed sensor ensures the pump is operating at correct speeds. If an obstruction is detected, the pump will shut down before overheating to help prevent damage.

Heating System

- 6000 watts of total heating power ensures proper wash and rinse temperatures are reached quickly, regardless of incoming water temperature.
- Wash and purified rinse water temperatures are adjustable, up to 93°C.

Filtration System

- Four-stage sump filtration system utilising surface, coarse, splinter, and micro-fine

filters prevents debris from re-circulating in the wash load and protects internal components.

- Mesh filters on incoming water lines provide additional protection.

Dispensing Systems

- Detergent is dispensed from the powder door dispenser. Automatic liquid dispensing can be added with addition of a DOS G-60 dispensing system.
- Liquid acid neutraliser is dispensed automatically using the on-board pump. The neutralisation step helps to ensure removal of all detergent residues.

Drying System

- Gravity convected drying is provided by the chamber heating elements. This step can be added to any programme with the simple touch of a button.

For more information on undercounter units, see:

Technical Data: pages 60–61

Accessories: pages 20–31

Controls: pages 8–9

G 7883 CD

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WRAS
APPROVED
PRODUCT

The Miele G 7883 CD is designed to provide superior cleaning and complete HEPA-filtered glassware drying in an undercounter unit. Complete with automatic dispensing of liquid detergent and neutralising agent, the G 7883 CD is an easy-to-use, total glassware processing solution inside the laboratory.

Models available

G 7883 CDAE – Stainless steel exterior

Construction

- 304 grade brush finished stainless steel exterior and 304 / 316 (door, and chamber floor) grade stainless steel chamber for superior corrosion resistance.
- Full external cabinet allows freestanding or undercounter installations.
- Direct basket coupling system to water feed allows for efficient water usage, and maximum basket flexibility from load to load.

Control System

- Multitronic Control System featuring eight standard programmes, and one custom programme slot. See page 8 for details.

Circulation System

- 400 litres per minute circulation for superior cleaning power.
- Unit includes upper and lower standard spray arms (addition of an upper basket adds a third).
- “Fresh Water System” intakes fresh, clean water before each cycle. Unit is plumbed to hot, cold, and purified water lines.
- A circulation pump speed sensor ensures the pump is operating at correct speeds. If an obstruction is detected, the pump will shut down before overheating to help prevent damage.

Heating System

- 6000 watts of total heating power ensures proper wash and rinse temperatures are reached quickly, regardless of incoming water temperature.
- Wash and purified rinse water temperatures are adjustable, up to 93°C.

Filtration System

- Four-stage sump filtration system utilising surface, coarse, splinter, and micro-fine filters prevent debris from re-circulating in the wash load and protects internal components.
- Mesh filters on incoming water lines provide additional protection.

Dispensing Systems

- Both liquid detergent, and liquid acid neutraliser are dispensed automatically using on-board peristaltic pumps. Pump nozzles can be inserted directly into 5 litre containers of cleaning agents stored in the unit’s convenient pull-out drawer.

Drying System

- HEPA filtered forced air drying system provides complete internal, and external drying of glassware (through injectors).
- Temperatures are adjustable from ambient to 110°C. Drying times are adjustable from 0–120 minutes.
- Coarse and HEPA filters are standard.

G 7835

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The Miele G 7835 combines the exceptional features of the G 7883 CD with the fully programmable Profitronic control system.

Models available

G 7835 AE – Stainless steel exterior

Construction

- 304 grade brush finished stainless steel exterior and 304 / 316 (door, and chamber floor) grade stainless steel chamber for superior corrosion resistance.
- Full external cabinet allows freestanding, or undercounter installations.
- Direct basket coupling system to water feed allows for efficient water usage, and maximum basket flexibility from load to load.

Control System

- Profitronic Control System featuring 11 standard wash programmes, and 8 standard service programmes which cover the majority of cleaning needs. Fully, freely programmable system allows up to 45 custom wash protocols to be created and stored. See page 9 for details.

Circulation System

- 400 litres per minute circulation for superior cleaning power.
- Unit includes upper and lower standard spray arms (addition of an upper basket adds a third).
- “Fresh Water System” intakes fresh, clean water before each cycle. Unit is plumbed to hot, cold, and purified water lines.
- A circulation speed sensor ensures the pump is operating at correct speeds. If an obstruction is detected, the pump will shut down before overheating to help prevent damage.

Heating System

- 6000 watts of total heating power ensures proper wash and rinse temperatures are reached quickly, regardless of incoming water temperature.
- Wash and purified rinse water temperatures are adjustable, up to 95°C.

Filtration System

- Four-stage sump filtration system utilising surface, coarse, fine, and micro-fine filters prevents debris from re-circulating in the wash load and protects internal components.
- Mesh filters on incoming water lines provide additional protection.

Dispensing Systems

- Both liquid detergent, and liquid acid neutraliser are dispensed automatically using on-board peristaltic pumps. Pump nozzles can be inserted directly into 5 litre containers of cleaning agents stored in the unit’s convenient pull-out drawer.

Drying System

- HEPA filtered forced air drying system provides complete internal, and external drying of glassware (through injectors).
- Temperatures are adjustable from ambient to 110°C. Drying times are adjustable from 0–120 minutes.
- Coarse, and post-motor HEPA filters are standard.

High throughput washer-disinfector G 7836 CD

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G 7836 CD

Load capacity

- 3 AN-sets or
7 DIN mesh trays or
1–2 MIS sets

Controls/programmes

- Freely programmable PROFITRONIC controls
- 64 programme slots, 16 standard cleaning and disinfecting programmes, 7 service programmes, 44 programmes free for customisation
- Clear text navigation display
- Displays for user and programming dialogue, programme durations, error messages and operating hours
- Compilation of new programmes either direct into appliance or using PC via the optical interface
- OXIVARIO programme* or retrofittable

Interface

- Serial interface RS 232 for process documentation
- Optical interface for servicing

Safety features

- Electrical door lock
- Programme failure check
- Peak load cut-out
- Audible and visible signals at end of programmes
- 2 sensors for temperature control and monitoring
- Sensor port for easy positioning of probes in the wash cabinet for validation or revalidation

Cleaning technology

- Hygienic fresh water system with change of water after each cleaning phase
- Cleaning and disinfection in a single closed system
- 2 spray arms for thorough cleaning of instruments
- Injector system for cleaning hollow instruments

Features

- Large capacity water softener
- Powerful circulation pump
- 4-fold filter system with flat filter, coarse filter, glass shard filter and micro-fine filter
- Steam condenser
- Drain pump
- Drying unit for hot air drying
- Printer PRT/3 incl. new drawer front (optional extra from Miele Spare Parts Dept.)

Construction

- Front loader with drop-down door
- 900 mm wide, 1175 mm high
- Freestanding
- High quality stainless steel wash cabinet and water connections
- Reinforced inlet and outlet hoses

* Must be specified at time of ordering. Depending on serial number this programme can be retrofitted to the G 7836 CD.

For application examples see pages 29/31
For technical data see pages 36/37





The Standard for In-Lab Washing

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As research becomes more and more precise, the importance of perfectly clean glassware is paramount. Thousands of laboratories around the world have discovered the power of Miele undercounter glassware washer-disinfectors. The G 7883 not only saves researchers from the labour-intensive task of hand washing, it also provides more repeatable and efficient results. From water treatment labs carrying out trace analysis to university tissue culture labs, the Miele G 7883 sets the standard for brilliant results in an undercounter washer-disinfector.





The Ultimate in Point-of-Use Washing and Drying

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For laboratories that require quick turn-around of glassware, the G 7883CD and G 7835 CD are unmatched. HEPA-filtered forced air systems dry the glassware inside and out, eliminating the manual labour required to transport glassware to a separate drying oven. Able to fit under the counter, these models also include built-in liquid dispensers to minimise refilling and exposure to chemicals. RS-232 connections and validation test ports provide for easy validation and documented results. For special applications or difficult cleaning challenges, the G 7835 adds unparalleled flexibility in custom programming. From critical pharmaceutical to petroleum research, these systems represent the ultimate in-lab washer-disinfectors for quick turnaround and difficult cleaning tasks.



Upper and Lower Basket Combinations



O 188 Upper basket

- For various inserts
- Open front
- For use with U 874 in all undercounter models
- Includes built-in spray arm
- 165 mm clearance to top of chamber, +/- 20 mm allowable adjustment
- Basket dimensions:
215 x 531 x 475 mm (H x W x D)



O 184 Upper injector basket

- Injector unit for centrifuge tubes, vials, test tubes for fraction collectors or autosampler tubes
- 90 mm clearance to top of chamber
- Silicone holders with 96 jets
2.5 x 110 mm (Dia x H)
- Connection to drying unit
- Use in G 7883, G 7883 CD and G 7835



U 874 Lower basket

- For various inserts
- For use with O 188 in all undercounter models
- Basket dimensions:
50 x 534 x 515 mm (H x W x D)
- Clearance with upper baskets:
O 188 approx. 270 mm +/- 20 mm
O 190 approx. 220 mm +/- 20 mm
O 175 approx. 214 mm +/- 20 mm
O 184 approx. 205 mm +/- 20 mm



U 184 Lower injector basket

- Injector unit for centrifuge tubes, vials, test tubes for fraction collectors or autosampler tubes
- 96 silicone holders with 96 jets
2.5 x 90 mm (Dia x H)
- Only to be used in conjunction with upper basket O 175 or O 184
- Clearance with upper baskets:
O 175 approx. 170 mm
O 184 approx. 170 mm

Upper and Lower Basket Combinations

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O 175 Upper-injector basket

- Injector unit for narrow-necked laboratory glassware
- 170 mm clearance to top of chamber
- Basket dimensions:
250 (412 with drying unit) x 531 x 475 mm (H x W x D)
- 34 injectors with retaining clips
- Connection to drying unit
- For use in G 7883 CD and G 7835

O 187 Upper-injector basket

- Same as O 175 but without drying tube
- Use in G 7883



U 175 Lower injector basket

- Injector unit for narrow-necked laboratory glassware
- Clearance when using the following upper baskets:
O 175 approx. 170 mm
O 187 approx. 170 mm
- 33 injectors with retaining clips
- Only to be used with O 175 or O 187

Direct Injection Baskets for Narrow-necked Glassware and Pipettes



E 329 Full injector basket

- Injector unit for narrow-necked glassware
- 1 jet for flushing powder dispenser
- Use in G 7883
- 39 assorted jets as follows:

No. of Jets	Diameter (mm)	Length (mm)
4	2.5	90
5	2.5	110
5	4.0	140
5	4.0	160
5	4.0	180
5	6.0	200
5	6.0	220
5	6.0	240



E 340 Half injector basket

- 1/2 injector unit for narrow-necked glassware
- 1/2 unit for various inserts
- 1 jet for flushing powder dispenser
- Use in G 7883
- 19 assorted jets as follows:

No. of Jets	Diameter (mm)	Length (mm)
3	4.0	140
3	4.0	160
3	4.0	180
3	6.0	200
3	6.0	220
4	6.0	240



E 355 Half injector basket

- 1/2 injector unit for narrow-necked glassware
- 1/2 unit for various inserts
- 1 jet for flushing powder dispenser
- Use in G 7883
- 16 assorted jets with retaining clips as follows:

No. of Jets	Diameter (mm)	Length (mm)
7	4.0	160
9	6.0	220

E 414 Full injector basket with drying connection (not pictured)

- Injector unit for narrow-necked glassware
- 1 jet for flushing powder dispenser
- Connection for drying unit. Use in G 7883 CD and G 7835
- 37 assorted jets as follows:

No. of Jets	Diameter (mm)	Length (mm)
4	2.5	90
3	2.5	110
5	4.0	140
5	4.0	160
5	4.0	180
5	6.0	200
5	6.0	220
5	6.0	240

E 385 Half injector basket with drying connection (not pictured)

- 1/2 injector unit for narrow-necked glassware
- 1/2 unit for various inserts
- 1 jet for flushing powder dispenser
- Connection for drying unit. Use in G 7883 CD and G 7835
- 16 assorted jets with retaining clips as follows:

No. of Jets	Diameter (mm)	Length (mm)
7	4.0	160
8	6.0	220

E 380 Full injector basket with drying connection (not pictured)

- Injector unit for narrow-necked glassware
- 1 jet for flushing powder dispenser
- Connection for drying unit. Use in G 7883 CD and G 7835
- 33 assorted jets as follows:

No. of Jets	Diameter (mm)	Length (mm)
15	4.0	160
18	6.0	220

Direct Injection Baskets for Narrow-necked Glassware and Pipettes



E 350 Full injector basket

- Injector unit for narrow-necked glassware
- Use in G 7883
- 1 jet for flushing powder dispenser
- 33 assorted jets as follows:

No. of Jets	Diameter (mm)	Length (mm)
15	4.0	160
18	6.0	220



E 331 Full injector basket

- Injector unit for butyrometers
- 39 tapered jets with side irrigation holes:
240 mm overall height
4.0 x 140 mm bottom portion (Dia x H)
1.5 x 100 mm top portion (Dia x H)
- 1 jet for flushing powder dispenser
- Use in G 7883, G 7883 CD and G 7835



E 405 Full injector basket

- Injector unit for 38 pipettes in 3 rows row
1: 10 x 100 ml pipettes (max. 550 mm)
row 2: 14 x 25 ml pipettes
row 3: 14 x 10 ml pipettes
- Connection for drying unit
- Use in G 7883 CD and G 7835

E 404 Full injector basket (not pictured)

- Same as E 405, except no drying connection
- Use in G 7883



E 336 MIBO pipette injector sleeve (pictured at bottom)

- Injector sleeve for pipettes
- Allows adaptation of injector baskets for pipette cleaning applications



E 406 Full injector basket

- Injector unit for 116 pipettes
- 450 mm max. length pipette
- Use in G 7883

E 408 Full injector basket(not pictured)

- Injector unit for 96 pipettes
- 450 mm max. length pipette
- Connection for drying unit.
Use in G 7883 CD and G 7835

Inserts for Beakers, Flasks and Wide-mouthed Glassware



Half inserts for narrow-necked glassware which do not require direct injection (e.g. flasks, graduated cylinders, bottles, etc.)

E 106 Half insert

- 28 spring clips to secure glassware:
10 spring clips 175 mm tall
18 spring clips 105 mm tall
Distance between clips:
approx. 60 mm
- Insert measurements:
186 x 195 x 430 mm (H x W x D)
- For use in lower or half injector baskets only

E 106/1 Half insert (not pictured)

- 28 small spring clips to secure glassware (105 mm tall)
- Distance between clips approx. 60 mm
- Insert measurements:
116 x 195 x 410 mm (H x W x D)
- For use in upper, lower or half injector baskets

E 106/2 Half insert (not pictured)

- 15 large spring clips to secure glassware (175 mm tall)
- Distance between clips approx. 85 mm
- Insert measurements:
286 x 180 x 420 mm (H x W x D)
- For use in lower basket or half injector baskets only



Half inserts for beakers, flasks and various other glassware which do not require direct injection

E 109 Half insert

- For 21 beakers (up to 250 ml) or other glassware
- 3 rows of 140 mm tall paired holders
- Insert measurements:
155 x 230 x 460 mm (H x W x D),
- For use in lower or half injector baskets only

E 110 Half insert (not pictured)

- For 10 beakers (250 to 600 ml) or other glassware
- 2 rows of 160 mm tall paired holders
- Insert measurements:
175 x 230 x 460 mm (H x W x D)
- For use in lower or half injector

E 111 Half insert (not pictured)

- For 8 beakers (600 to 1000 ml) or other glassware
- 4 rows of 190 mm holders (24 total)
- Insert measurements:
205 x 230 x 460 mm (H x W x D)
- For use in lower or half injector baskets only

E 144 Half insert (not pictured)

- For 18 beakers (up to 250 ml)
- 3 rows of 120 mm tall paired holders
- Insert measurements:
131 x 200 x 445 mm (H x W x D)
- For use in upper, lower or half injector baskets



AK 12 Half insert (pictured with A 14 lid)

- Half insert basket with handles, for beakers, bottles and various other glassware which do not require direct injection. This insert is also ideal for miscellaneous labware (e.g. funnels, stirrers, stopcocks, etc.).
- Insert measurements:
67 x 225 x 442 mm (H x W x D).
Allow additional 60 mm for height of handles
- For use in upper, lower or half injector baskets

Note: If lid is desired, use two A 14 1/4 lids (see page 27 for details).

Inserts for Test Tubes and Small Items

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E 103 Quarter insert
(pictured at bottom left)

- For approx. 160 test tubes, 75 mm maximum length
- Divided into 6 sections
- Includes A 13 lid
- For use in upper, lower and half injector baskets



E 104 Quarter insert
(pictured at bottom right)

- For approx. 160 test tubes, 105 mm maximum length
- Divided into 6 sections
- Includes A 13 lid
- For use in upper, lower and half injector baskets

E 105 Quarter insert
(pictured at top right)

- For approx. 160 test tubes, 165 mm maximum length
- Divided into 6 sections
- Includes A 13 lid
- For use in upper, lower and half injector baskets

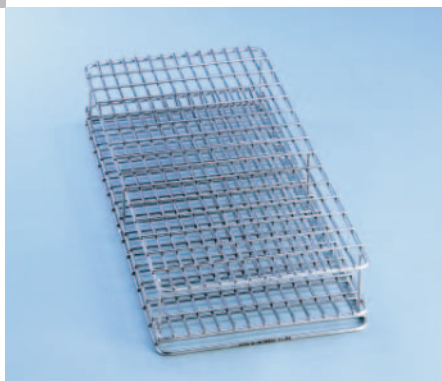
E 139 Quarter insert (pictured at top left)

- For approx. 160 test tubes, 200 mm maximum length
- Divided into 6 sections
- Includes A 13 lid
- For upper, lower and half injector baskets

E 149 Quarter insert

- Segmented insert with locking cover
- Eighty 18 x 18 mm sections
- For test tubes up to 105 mm in length
- Fits on upper and lower levels

Inserts for Slides, Watchglasses and Petri Dishes



E 134 Half insert

- Half insert for 210 slides
- Divided into 210 compartments (26 x 11 mm)
- For use in upper, lower or half injector baskets



E 403 Half insert

- Half insert for 105 watch-glasses, 50 to 60 mm diameter
- 35 x 200 x 445 mm (H x W x D)
- 36 supports
- 9 mm distance between supports

E 402 Half insert (not pictured)

- Half insert for 44 watch-glasses, 80–125 mm diameter
- 53 x 200 x 445 mm (H x W x D)
- 23 supports
- 15 mm distance between supports



E 118 Full insert

- Full insert for 38 Petri dishes, 100 mm diameter
- 120 x 460 x 445 mm (H x W x D)
- 38 holders: 70 mm High
- Distance between holders: approx. 26 mm
- For use in upper or lower baskets

E 136 Full insert (not pictured)

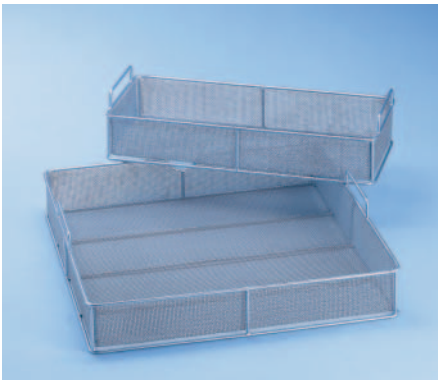
- Full insert for 56 Petri dishes, 100 mm diameter
- 56 holders: 70 mm High
- Distance between holders: approx. 26 mm
- For use in lower basket only

E 137 Full insert (not pictured)

- Full insert for 56 Petri dishes, 100 mm diameter
- 95 x 485 x 445 mm (H x W x D)
- 56 holders: 70 mm High
- Distance between holders: approx. 26 mm
- For use with the E 136 insert only

Insert Covers and Mesh Basket Inserts

27



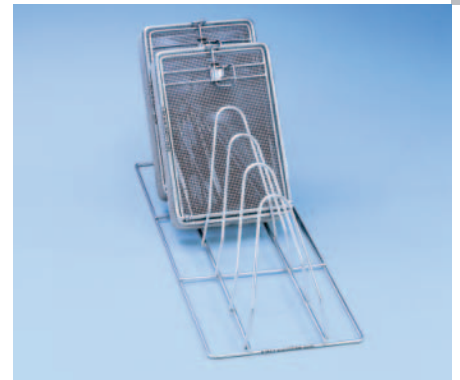
E 379 Half insert (pictured at top)

- Half insert mesh basket with handles.
- Insert measurements: 80 + 30 (handle height) x 180 x 445 mm (H x D x W)
- For use in upper or lower baskets



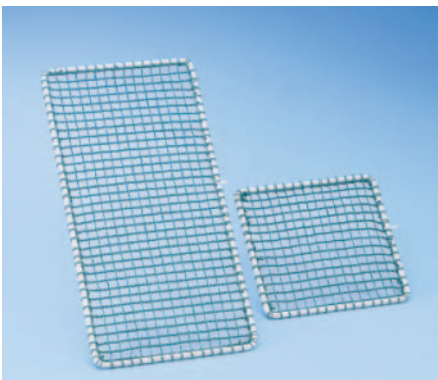
E 363 1/6 Mesh tray insert

- 1/6 mesh tray insert for various items
- 55 x 150 x 225 mm (H x W x D)
- Mesh size: 1 mm, with lid



E 131 Mesh tray support insert

- Supports E 146/E363 mesh trays
- 170 x 180 x 465 mm (H x W x D)
- 6 holders, 160 mm High
- Approx. 65 mm between holders
- For upper/lower basket

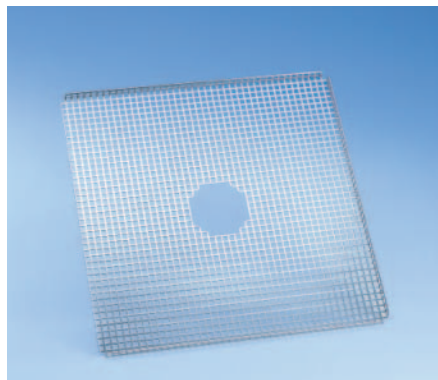


A 2 Half Cover net (pictured at left)

- 216 x 456 mm

A 3 1/4 Cover net (pictured at right)

- 206 x 206 mm



A 11 Full underlay

- 450 x 450 mm
- For use in upper or lower basket

A 12 Half underlay (not pictured)

- 450 x 225 mm
- For use in upper, lower or half injector basket



A 14 1/4 Lid (pictured w/ AK 12)

- Lid for insert AK 12, 210 x 210 mm

Inserts for Bottles not Requiring Direct Injection



E 125 insert

- Holds 9 bottles
- Nine 125 x 125 mm compartments
- For use on lower level only
- Neck dimensions: 55 x 55 mm

E 124 insert (not pictured)

- Holds 16 bottles
- Sixteen 100 x 100 mm compartments
- For use on lower level only
- Neck dimensions: 48 x 48 mm



E 126 insert

- Holds 48 bottles
- Forty eight 45 x 45 mm compartments
- Neck dimensions: 28 x 8 mm
- For use on upper or lower level

E 127 insert (not pictured)

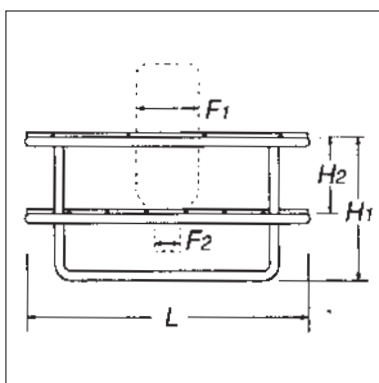
- Holds 40 bottles
- Forty 57 x 57 mm compartments
- Neck dimension: 46 x 46 mm
- For use on upper and lower level

E 128 insert (not pictured)

- Holds 24 bottles
- Twenty four 71 x 71 mm compartments
- Neck dimensions: 46 x 46 mm
- For use on upper and lower level

E 129 insert (not pictured)

- Holds 20 bottles
- Twenty 84 x 84 mm compartments
- Neck dimensions: 46 x 46 mm
- For use on upper or lower level



Basket	Dimensions (mm)					No. of compartments
	L	F1	F2	H1	H 2	
E 124	460	100	48	148	100	16
E 125	460	125	55	224	150	9
E 126	445	45	28	83	40	48
E 127	445	57	46	102	45	40
E 128	445	71	46	103	60	24
E 129	445	84	46	113	80	20

Bases and Stands

29

**UC 30-60/60-78 Stainless steel plinth**

- Raises washer height by approx. 300 mm
- Measurements (H x W x D):
300 mm x 600 mm x 600 mm
- For use with G 7883

UC 30-90/60-78 Stainless steel plinth

- Raises washer height by approx. 300 mm
- Measurements (H x W x D):
300 mm x 900 mm x 600 mm
- For use with G 7883 in combination with
G 7895 or G 7896

UE 30-30/60-78 Stainless steel plinth

- Raises unit height by approx. 300 mm
- Measurements (H x W x D):
300 mm x 300 mm x 600 mm
- For use with G 7895 and G 7896

UC 30-90/70-78 Stainless steel plinth

- Raises washer height by approx. 300 mm
- Measurements (H x W x D):
300 mm x 900 mm x 700 mm
- For use with G 7883 CD or G 7835

Accessories

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G 7895 Pure Water System

An important factor in the performance of a critical cleaning system is the quality of the water used for the final rinse(s). Rinsing with purified water helps ensure the removal of detergent and neutraliser residues and contributes greatly toward analytically clean results. The Miele G 7895 Pure Water System produces high quality deionised water via the ion exchange method.

This process uses a synthetic resin bed which has been chemically charged with ions. Tap water is passed over the resin bed. The salts in solution in the water split up (dissociate) into positively charged ions and negatively charged ions. The separable ions in the resin changes place with hydrogen and hydroxyl ions which are dissociated in the surrounding water. The hydrogen and hydroxyl ions in turn combine to form pure water. Over time the resin will become exhausted and need to be replaced. A built-in conductivity meter monitors the water quality and indicates when to replace the resin exchanges depends on the degree of hardness of the incoming water.



G 7895 Pure Water System

- Stainless steel cabinet with conductivity meter (in microS/cm)
- Includes 1 E 318 cartridge and 1 E 315 resin kit
Note: unit can hold maximum of two E 318 cartridges
- Measurements (H x W x D): 850 x 300 x 600 mm
- Two pressure hoses, approx. 1.2 m long. Water intake to 3/4" Male Hose Thread with shutoff.
- Minimum 2.5 bar incoming water pressure



E 318 (pictured at left)

- Stainless steel cartridge, pressure-proof, complete with vent and pressure relief valve
- Holds 20 l of E 315 disposable resin
- Diameter 240 mm, Height 570 mm

E 315 (pictured at bottom)

- Disposable resin, 20 l, (two 10 l bags) in vacuum-packed plastic bags
- Includes filter bag for replacement

E 316 (pictured at right)

- Refill kit for resin replacement
- Includes 30 liter plastic barrel and funnel

Accessories

31



G 7896 DOS Cabinet

Supply unit for 1–4 DOS modules and 1–4 five litre detergent/neutraliser containers.

- Three levels:

Level 1:

Pull-out drawer on telescopic runners for storage of up to 4 DOS modules

Level 2 and 3:

Pull-out drawer on telescopic runners with drip tray and retainer for storage of 2 five litre canisters each (total = 4)

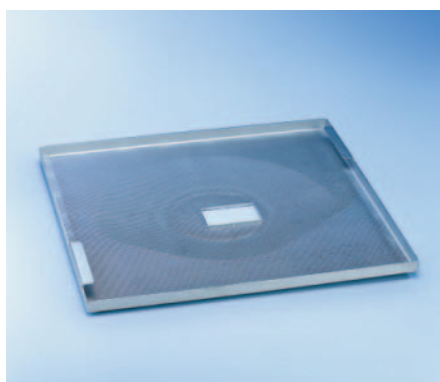
- Casing: Stainless steel
- External dimensions:
850 (820 mm w/out lid) x 300 x 600 mm (H x W x D)
- Internal dimensions:
530 x 249 x 480 mm (H x W x D)



DOS Module G 60 (pictured at top)

Optional liquid detergent dispenser for the G 7883 washer.

- Adjustable for dispensing from 3 to 78 ml
- Adjustable siphon tube for different size detergent containers (detergent container not included)



E 319 Full insert filter (pictured at bottom)

Prevents labels from soiling laboratory glassware and retains glass particles.

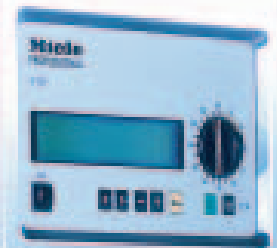
- Full insert surface filter for coarse particles
- Stainless steel, 500 x 488 mm



Mielcar

Mobile trolley for loading and unloading washer-disinfectors

- 4 wheels, 2 of which can be locked
- Adjustable height
- 2 recessed shelves, handle and docking plate
- Dimensions:
1000 x 630 x 814 mm (H x W x D)
- Depth with docking plate raised:
960 mm
- Insert level: freely adjustable between 640–885 mm
- Suitable for Miele washer-disinfectors on 300 mm high plinths



G 7825 / G 7826

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The Miele G 7825 and G 7826 washer-disinfectors are ideal for organisations utilising high volumes of glassware, or large items that cannot be cleaned in standard capacity units. Commonly installed in large laboratories or centralised wash areas where space is at a premium, these systems can wash and dry in a single process, eliminating the need for separate drying ovens and reducing labour and utility costs.

Models available

G 7825 – Single-door model

G 7826 – Dual-door, pass-through model

Both units are available with, or without HEPA-filtered forced air drying.

Control System

- Profitronic Control System featuring 12 standard wash programmes, and 8 service programmes which cover the majority of cleaning needs. Fully, freely programmable system allows up to 45 custom wash protocols to be created and stored.

Construction

- 304 grade brush finished stainless steel exterior and 316L grade stainless steel chamber for superior corrosion resistance.
- Double wall construction helps minimise noise, and lower energy costs by minimising heat loss.
- Concealed heating elements protect against accidental burns.

Efficiency

- The typical water fill of 20 litres is less than most units in this capacity range.
- Fill levels are adjustable for even greater water savings.
- Low water consumption and high circulation rates allow minimal detergent consumption.

High Temperature Washing

- Wash, rinse, and purified rinse water temperatures are adjustable up to 95°C in one degree increments.

Fresh Water / DI Preheating System

- “Fresh Water System” intakes fresh, clean water before each cycle. Unit is plumbed to hot, cold, and purified water lines.
- Unit includes a 21 litre purified preheating tank. By preheating purified water before the final rinse, overall cycle time can be shortened.
- A full cycle of circulated, heated purified in the final rinse step helps provide complete rinsing. Many manufacturers simply use a “spray and drain” step which is not as effective.

Pump Systems

- Dual circulation pumps, totaling 700 litres per minute capacity, combine a high circulation rate with gentle spray pressure for maximum cleaning effectiveness and glassware protection
- Separate pumps for the spray arms, and the injectors ensure adequate water flow.
- Dual drain pumps help eliminate the risk of cross contamination and provide for easy installation without a floor drain.



Dispensing Systems

- Two dispensing pumps are included for precise, automatic dosing of detergents and neutraliser.
- Two 10 litre storage containers are located in the base of the washer-disinfector providing easy storage.
- Flow meters on each pump ensure the proper water to detergent ratio is maintained. Float sensors alert the operator when detergent levels are low.

Filtration System

- The triple filtration system ensures only clean, particle free water is circulated in the chamber.
- Filters on inlet hoses stop external particles from entering the water path.
- Multiple sump filters help prevent debris from the wash load from recirculating.
- Filters upstream of the circulation pumps protect and extend pump life.

Drying System (Optional)

- HEPA filtered forced air drying system provides complete internal, and external drying of glassware (through injector nozzles).
- Temperatures are adjustable from ambient to 115°C. Drying times are adjustable from 0–240 minutes.
- Dual stage drying allows two different drying times and temperatures to be used in a single cycle. This is ideal for temperature sensitive items such as plastics.
- An optional cool down stage helps the glassware to cool before the cycle ends, allowing safe handling directly from the washer-disinfector.
- Both coarse, and post-motor HEPA filters are standard.
- Noise levels of only 66dBa.
- By washing and drying in a single unit, the G 7825 and G 7826 can produce clean, dry glassware ready for research in about an hour.

Note: Drying units for the G 7825 and G 7826 must be specified at the time of order.

Modular Basket System

- The Miele E-741 series baskets allow maximum flexibility from wash load to wash load.
- Various modules can be inserted into the E-741 mobile unit depending on the size, and type of glassware to be washed.
- Standard cleaning is available on up to 5 levels.
- Injection cleaning is available on up to 3 levels.

G 7827 / G 7828

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The Miele G 7827 and G 7828 washer-disinfectors are Miele's largest capacity units. Ideal for organisations utilising high volumes of glassware, or large items that cannot be cleaned in standard capacity units, they are most commonly installed in centralised wash areas. These units can wash and dry in a single process, eliminating the need for separate drying ovens and reducing labour and utility costs.

Models available

G 7827 – Single-door model

G 7828 – Dual-door, pass-through model

Control System

Profitronic Control System featuring 12 standard wash programmes, and 8 standard service programmes which cover the majority of cleaning needs. For special applications, up to 45 custom wash protocols can also be stored in the unit. (See page 9 for a full description).

Construction

- 304 grade brush finished stainless steel exterior and 316L grade stainless steel chamber for superior corrosion resistance.
- Double wall construction helps minimise noise, and lower energy costs by minimising heat loss.
- Concealed heating elements protect against accidental burns.

Modular Concept

- The G 7827 and G 7828 washers are designed in modules for easy configuration.
- Drying unit and steam condenser can be added at any time should your needs change.

Efficiency

- The typical water fill of 30 litres is less than most units in this capacity range. Fill levels are adjustable for even more water and detergent savings.

High Temperature Washing

- Wash, rinse, and purified rinse water temperatures are adjustable up to 95°C in one-degree increments. It is well known that hotter water provides for better washing and rinsing.
- Independent temperature control within each cycle step allows maximum flexibility in design of protocols.

Pump Systems

- Dual circulation pumps, totaling 1000 litres per minute capacity, combine a high circulation rate with gentle spray pressure for maximum cleaning effectiveness and glassware protection.
- Separate pumps for the spray arms, and the injectors ensure adequate water flow.
- Dual drain pumps help eliminate the risk of cross contamination, and provide easy installation by eliminating the need for a floor drain.



Fresh Water / Purified water Pre-heating System

- "Fresh Water System" intakes fresh, clean water for each wash step. Unit is plumbed to hot, cold, and purified water lines
- Unit includes a 30 litre purified water tank. By pre-heating purified water before the final rinse, overall cycle time can be shortened.
- A full cycle of circulated, heated purified in the final rinse step helps provide complete rinsing. Many manufacturers simply use a "spray and drain" step which is not as effective.

Filtration System

- The triple filtration system ensures only clean, particle free water is circulated in the chamber.
- Filters on inlet hoses stop external particles from entering the water path.
- Multiple sump filters help prevent debris from the wash load from recirculating.
- Filters upstream of the circulation pumps protect and extend pump life.

Dispensing Systems

- Four bellows-type dispensing pumps are included for precise, automatic dosing of detergents and neutraliser.
- Four 10 litres storage containers are located in the base of the washer-disinfector providing easy storage.
- Flow meters on each pump ensure the proper water to detergent ratio is maintained. Float sensors alert the operator when detergent levels are low.

Drying System (Optional)

- HEPA filtered forced air drying system provides complete internal, and external drying of glassware (through injectors).
- Temperatures are adjustable from ambient to 115°C.
- Drying times are adjustable from 0–240 minutes.
- Both coarse, and post-motor HEPA filters are standard.

- Dual stage drying allows two different drying times and temperatures to be used in a single cycle. This is ideal for temperature sensitive items such as plastics.
- An optional cool down stage helps the glassware to cool before the cycle ends, allowing safe handling directly from the washer-disinfector.
- By washing and drying in a single unit, the G 7827 and G 7828 can produce clean, dry glassware ready for research in about an hour.

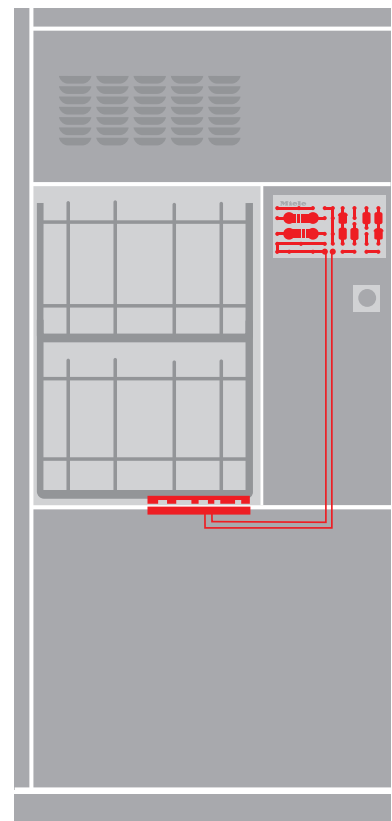
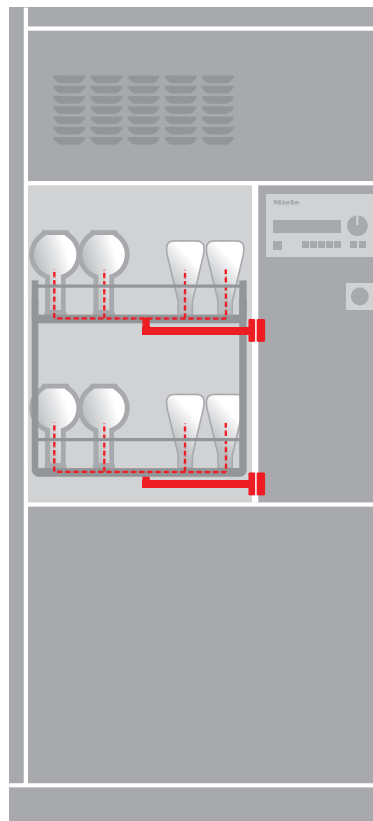
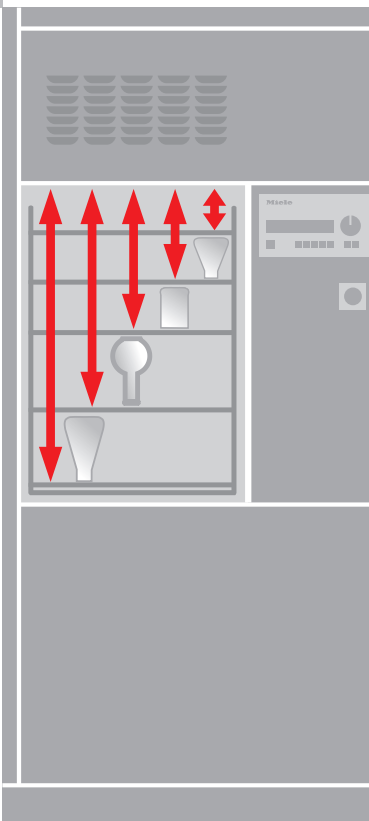
Modular Basket System

- The Miele E-941 series baskets allow maximum flexibility from wash load to wash load.
- Various modules can be inserted into the E-941 mobile unit depending on the size, and type of glassware to be washed.
- Standard, or injection cleaning is available on up to three levels.

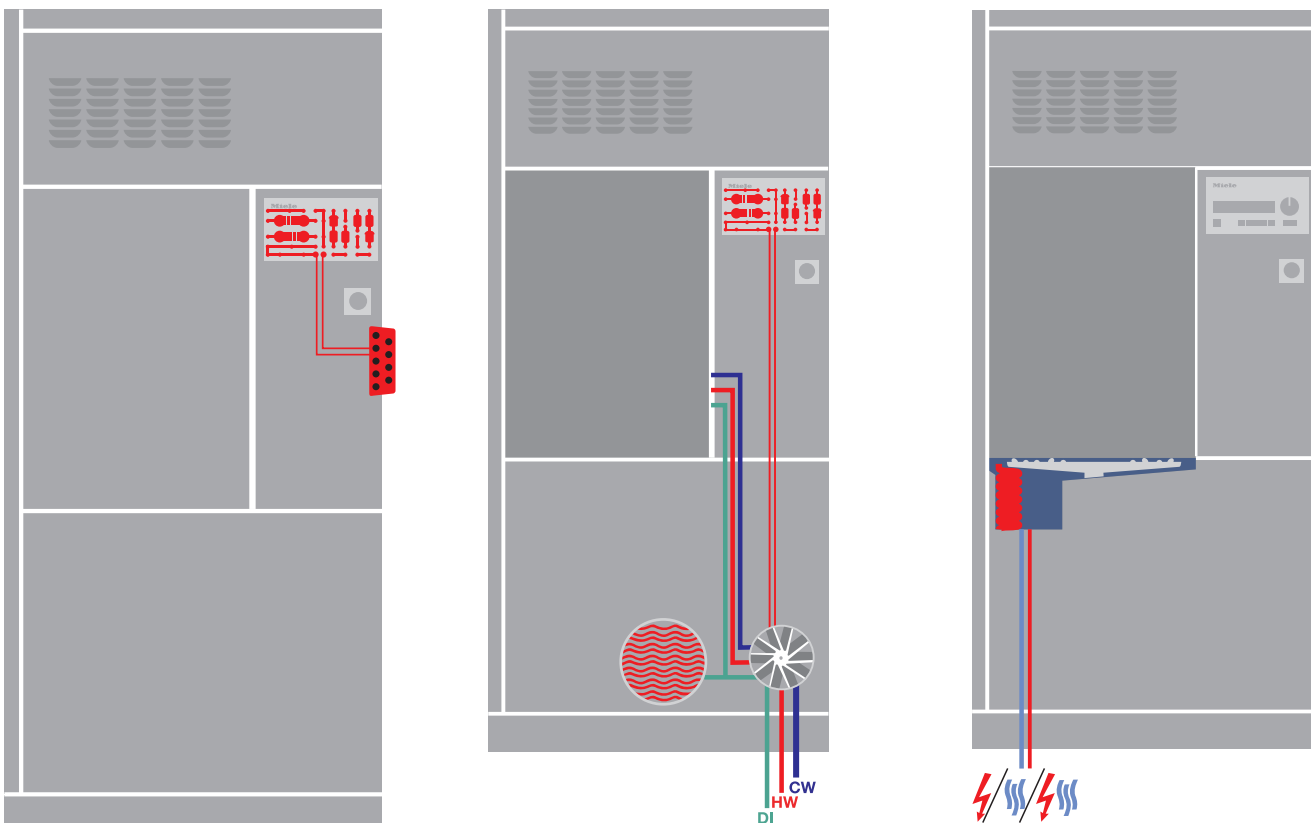


Innovative Features for Large Capacity Units G 7825 / 7826 / 7827 / 7828

38



- The Miele G 78 series Large Capacity Glassware Washing Systems are designed to provide both high-capacity, and superior flexibility from load to load. High volumes of general glassware, or large items can be cleaned easily and efficiently using the wide variety of baskets available.
- Depending on the model, up to three levels of injection cleaning, or five levels of standard cleaning are available. The E 741 and E 941 Modular Basket Systems provide fast configuration changes load to load.
- Miele's direct connect coupling system allows easy insertion and removal of baskets. This system allows maximum flexibility from load to load. Spring-loaded couplings also help ensure correct water and hot air pressure in all injectors. Regardless of the number of injection-baskets used there is always adequate pressure to ensure proper cleaning.
- Miele's Automatic Mobile Unit Recognition System allows the unit to read a magnetic coding strip on E-900 series (standard) or E-700 series (with optional coding strip) baskets which tells the machine to run only one specific programme.
- The user simply inserts the basket, closes the door, and pushes start. The unit will only run the specified programme, and the door will only open after programme completion. User intervention is not allowed.
- By helping to eliminate user error, this feature is ideal for facilities with critical applications where each step of the wash process must be scrutinised.



- The included RS-232 port can be connected to an optional internal printer (available from Miele) or external printer to provide documentation of each step in an individual wash cycle, programme parameters, faults, and machine parameters.
- All incoming water lines are equipped with flow meters for accurate control and monitoring of fill volumes.
- By accurately controlling fill volumes, superior cleaning results can be achieved with optimum efficiency.
- Detergent to water ratios are automatically maintained to ensure brilliant cleaning results.
- All Miele Large Capacity Systems can be heated using either steam, or electricity.
- Washer-disinfectors are supplied with connections for heating using both steam and electricity. A simple setting within the controller can switch the heating method. Should your steam supply fail, this feature allows easy conversion to electric heating.



Big Cleaning Results in Small Spaces

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Ideal for mid-sized organisations with central washing areas, the G 7825 is designed for high throughput glassware cleaning, in a limited physical space. It has a small footprint of just over 740 x 900 mm and features a unique trolley design that requires minimal space in front of the unit, enabling the washer-disinfector to fit perfectly into tight spaces. The HEPA-filtered forced air drying system is located on top of the unit and requires no additional room. Powerful, yet quiet drying eliminates the need for a separate drying oven, reducing labour and electrical costs, heat output, and further floor space requirements. Whether you want to wash multiple levels of small flasks, or 2 litre graduated cylinders, the G 7825 cleans to perfection.



Mobile Units for use in G 7825/26



E 775 Mobile Unit

- With 2 levels for various inserts
- 400 x 530 x 600 mm (H x W x D)
- Built-in middle spray arm
- Magnetic coding strip for automatic mobile unit sensor (optional)
- Includes two E-750 units to secure and position inserts for optimal cleaning results
- Clearance:

LL:	H 304, W 482, D 590 mm
UL:	H 289, W 488, D 546 mm



E 735 Mobile Unit

- With 3 levels for various inserts
- 552 x 530 x 660 mm (H x W x D)
- 2 built-in spray arms
- Magnetic coding strip for automatic mobile unit sensor (optional)
- Includes three E-750 units to secure and position inserts for optimal cleaning results
- Clearance (Level 1= Lower Level)

1 & 2:	H 203, W 482, D 590 mm
3:	H 133, W 488, D 546 mm



E 701 Mobile Unit

- With 4 levels for various inserts
- 461 x 530 x 600 mm (H x W x D)
- 3 built-in spray arms
- Accepts the E 702 for opt. 5th level
- Magnetic coding strip for automatic mobile unit sensor (optional)
- Clearance (Level 1=Lower Level)

1:	H 87, W 482, D 590 mm
2 & 3:	H 87, W 488, D 546 mm
4:	H 87, W 488, D 546 mm



E 702 Modular Unit

- For use with the E 701
- Creates removable 5th level
- Includes one E-750 unit to secure and position inserts for optional cleaning results
- Clearance of top level:

H 160, W 530, D 560 mm



E 757 Mobile Unit

- For 1-6 large items (carboys)
- Includes six injector jets

10 x 1.5 x 300 mm and six plastic coated supports to secure glassware

- Height-adjustable holding frame with 6 short and 4 long struts to accommodate various glass diameters.
- Magnetic coding strip for automatic mobile unit sensor (optional)

Modular Basket System

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E 741 Mobile Unit

- Accepts 3 levels of modular inserts
- 680 x 530 x 600 mm (H x W x D)
- For single, double, or 3 level cleaning
- Allows injection, standard, or combination loads
- Magnetic coding strip for automatic sensing of a specific wash routine
- Two top level tracks allows flexibility per wash load



E 742 Modular Support Frame

- Support frame with spray arm
- Standard cleaning frame for levels 2, 3 or 4
- Supports two half inserts such as the E 106 or AK 12
- H 112, W 492, D 496 mm



E 743 Modular Injector Insert

- For narrow neck items, (up to 500 ml)
- 195 x 492 x 496 mm (H x W x D)
- Injectors can be removed for custom configuration
- Connection for forced air drying through injectors
- 36 injectors (E 351), 160 mm
- 36 Mielava clips (E 353) for securing glassware in place



E 744 Modular Injector Insert

- For narrow neck items, 500–1000 ml
- 255 x 492 x 496 mm (H x W x D)
- Injectors can be removed for custom configuration
- Connection for forced air drying through injectors
- 16 injectors (E 352), 220 mm
- 16 Mielava clips (E 354) for securing glassware in place



E 745 Modular Injector Insert

- Injector unit for 104 pipettes
- 290 x 492 x 496 mm (H x W x D)
- Each section is 16 mm x 16 mm
- Connection for forced air drying through injectors
- Support frame can hold additional wide mouth glassware

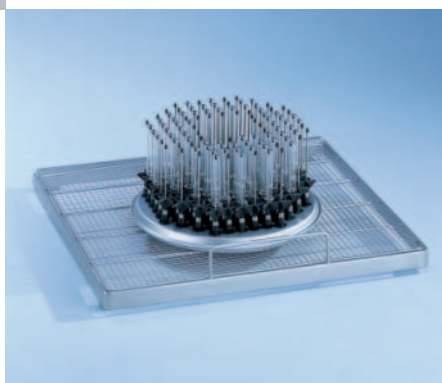


E 746 Modular Injector Insert

- Injector unit for 23 pipettes
- Holds 10 pipettes up to 560 mm long
- Holds 13 pipettes up to 490 mm long
- Connection for forced air drying through injectors
- Support frame can hold additional wide mouth glassware
- Allows a second cleaning level

Modular Basket System

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E 747 Modular Injector Insert

- For use with E 741 mobile unit
- 104 injectors
- 170 x 492 x 496 mm (H x W x D)
- Ideal for cleaning centrifuge tubes, vials, test tubes, or other small items
- Connection for forced air drying through injectors
- Support frame can hold additional wide mouth glassware



E 755 Modular Injector Insert

- For use with E 741 mobile unit
- For narrow neck items, 25 - 100 ml
- 130 x 492 x 496 mm (H x W x D)
- Injectors can be removed for custom configuration
- Connection for forced air drying through injectors
- 36 injectors, 90 mm

Inserts for Beakers, Flasks and Wide-mouthed Glassware



Half inserts for narrow-necked glassware which do not require direct injection (e.g. flasks, graduated cylinders, bottles, etc.)

E 106 Half insert

- 28 spring clips to secure glassware:
10 spring clips 175 mm tall
18 spring clips 105 mm tall
Distance between clips approx. 60 mm
- Insert measurements:
186 x 195 x 430 mm (H x W x D)
- For use in lower or half injector baskets

E 106/1 Half insert (not pictured)

- 28 small spring clips to secure glassware (105 mm tall)
- Distance between clips approx. 60 mm
- Insert measurements:
116 x 195 x 410 mm (H x W x D)
- For use in upper, lower or half injector baskets

E 106/2 Half insert (not pictured)

- 15 large spring clips to secure glassware (175 mm tall)
- Distance between clips approx. 85 mm
- Insert measurements:
286 x 180 x 420 mm (H x W x D)
- For use in lower basket or half injector baskets only



Half inserts for beakers, flasks and various other glassware which do not require direct injection

E 109 Half insert

- For 21 beakers (up to 250 ml) or other glassware
- 3 rows of 140 mm tall paired holders
- Insert measurements:
155 x 230 x 460 mm (H x W x D)
- For use in lower or half injector baskets

E 110 Half insert (not pictured)

- For 10 beakers (250 to 600 ml) or other glassware
- 2 rows of 160 mm tall paired holders
- Insert measurements:
175 x 230 x 460 mm (H x W x D)
- For use in lower or half injector baskets

E 111 Half insert (not pictured)

- For 8 beakers (600 to 1000 ml) or other glassware
- 4 rows of 190 mm holders (24 total)
- Insert measurements:
205 x 230 x 460 mm (H x W x D)
- For use in lower or half injector baskets

E 144 Half insert (not pictured)

- For 18 beakers (up to 250 ml)
- 3 rows of 120 mm tall paired holders
- Insert measurements:
131 x 200 x 445 mm (H x W x D)
- For use in upper, lower or half injector baskets



AK 12 Half insert

- Half insert basket with handles, for beakers, bottles and various other glassware which do not require direct injection. This insert is also ideal for miscellaneous labware (e.g. funnels, stirrers, stopcocks, etc.).
- Insert measurements:
67 x 225 x 442 mm (H x W x D).
- Allow additional 60 mm for height of handles
- For use in upper, lower or half injector baskets

Note: If lid is desired, use two A14 1/4 lids

A 14 1/4 Lid (pictured w/ AK 12)

- Lid for insert AK 12, 210 x 210 mm



Drying Unit

- For fast, particulate free drying of glassware
- Adjustable temperatures from 60 - 115°C
- Adjustable time from 3 - 240 minutes
- Two time / temperature settings per cycle
- Cool down step to make glassware safe to handle at the end of the cycle
- Dual pre-filters rated 95% efficient for 200 hours
- S-Class HEPA filter rated 99.992% efficient for 500 hours
- Quiet operation (66 dBA)
- Drying unit must be specified at the time of order.

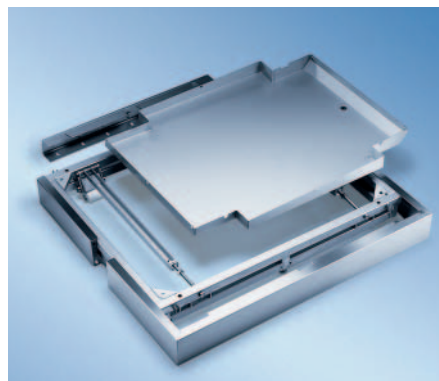
Steam Condenser

- For use when no ventilation, or air conditioned ventilation system is used
- Heat exchange system condenses steam, and sends it to the drain
- Requires the addition of an MAV/2 enclosure kit
- Raises washer height by 600 mm



MAV/2 Enclosure Kit

- For use with Steam Condenser



SBW/2 Base

- Simplifies machine installation
- Acts as a drip tray
- Cut out for possible floor drain connection

SBWR/2 Mobile Base (not pictured)

- Mobile base equipped with locking rollers
- Allows machine to be easily moved away from the wall for service access
- Simplifies machine installation
- Recommended if machine must be placed 450 mm or closer to wall
- Acts as a drip tray

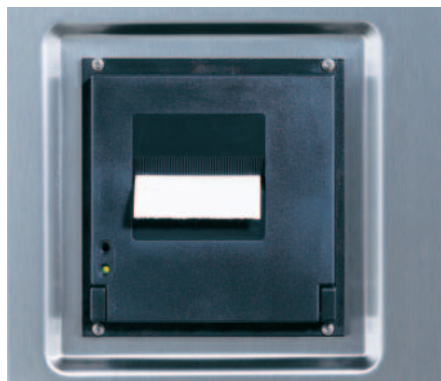
G 7825 and G 7826 installations require either an SBW/2 or SBWR/2 base.

Options and Accessories for G 7825/26

47

**Transfer Trolley**

- For safe and easy transfer of baskets
- Unique patented design suspends the mobile unit in the air, allowing the trolley to load from the front or side saving valuable floor space
- Dimensions (H x W x D):
1260 (+/- 100 mm) x 650 x 850 mm

**Internal Printer Module**

- For machine and process documentation
- 6 pin printer with RS-232 interface
- Paper format: 58mm roll

**ML Magnetic Strip**

- Five magnet strip used on mobile units for interface with the Automatic Mobile Unit Recognition System



A Perfect Blend of Design and Function

49

The central wash area may not be the most glamorous part of your research facility, but it plays a critical role in your company's ability to perform research accurately and quickly. The G 7827 has become known throughout the world for providing brilliant cleaning results, however, the G 7827 offers more. It is easy to load and unload, works quickly and quietly, is extremely energy efficient, and can be fully validated by Miele. Its fully enclosed stainless steel design makes it an aesthetically pleasing addition to any washroom. The G 7827 combines sophisticated technology with simple operation and beauty, representing a perfect blend of design and function.



Mobile Units for G 7827/28

50



E 975 Mobile unit

- With 2 levels
- 427 x 640 x 790 mm (H x W x D)
- Built-in spray arm
- Magnetic coding strip for automatic sensing of a specific wash routine
- Clearance:
Lower level:
H 310, W 592, D 780
Upper level:
H 290, W 592, D 780



E 935 Mobile unit

- With 3 levels for various inserts
- 524 x 640 x 790 mm (H x W x D)
- 2 built-in spray arms
- Magnetic coding strip for automatic sensing of a specific wash routine
- Clearance (level 1 = lower level):
Level 1 = H 200, W 585, D 775
Level 2 = H 200, W 590, D 775
Level 3 = H 163, W 590, D 775



E 900 Mobile unit

- With 5 levels for various inserts
- 605 x 640 x 790 mm (H x W x D)
- 4 built-in spray arms
- Magnetic coding strip for automatic sensing of a specific wash routine
- Clearance (level 1 = lower level):
Level 1 = H 95, W 593, D 790
Level 2 = H 95, W 593, D 790
Level 3 = H 95, W 593, D 790
Level 4 = H 95, W 593, D 790
Level 5 = H 82, W 593, D 790

Direct Injection Baskets for G 7827/28

51



E 940 Mobile injector unit

- With two levels for direct injection washing and drying of narrow-necked laboratory glassware
- Upper level can be removed for single-level cleaning of tall items
- Magnetic coding strip for automatic sensing of a specific wash routine
- Connection for forced air drying through injectors
- 565 x 640 x 790 mm (H x W x D)
- 115 injectors with clips are removable for custom configuration of the basket
- Lower level:
 - 35 injectors (E 352), 6 x 220 mm
 - 35 clips (E 354)
- Upper level:
 - 80 injectors (E 351), 4 x 160 mm
 - 80 clips (E 353)



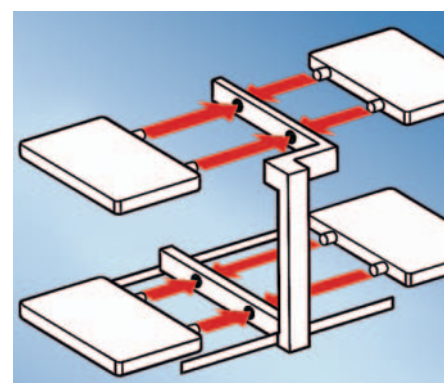
E 957 Mobile injector Unit

- For 1-12 large items (carboys)
- Includes twelve injector jets and twelve plastic coated supports to secure glassware
- Height-adjustable holding frame with 3 short and 2 long struts to accommodate various glass diameters
- Magnetic coding strip for automatic sensing of a specific wash routine



E 941 Modular mobile injector unit

- With two levels for modular inserts
- For direct injection cleaning, standard cleaning, or a combination of both in a single load, on one or two levels
- 421 x 619 x 790 mm (H x W x D)
- 2 modular inserts can be accommodated on each level
- Magnetic coding strip for automatic sensing of a specific wash routine
- Connection for forced air drying through injectors



The E 941 modular insert is user-configurable. A variety of standard or direct injection racks can be utilised with the E 941 to accommodate a wide variety of wash loads

Modular Basket System



E 942 Modular injector insert

- Injector unit for 116 pipettes
- For use with E 941
- Forced air drying through injectors
- Each section is 16 x 16 mm
- 279 x 558 x 352 mm (H x W x D)
- Support frame can hold additional wide-mouth glassware



E 943 Modular injector insert

- Injector unit for narrow-necked laboratory glassware, 100-500 ml
- For use with E 941
- Forced air drying through injectors
- Injectors are removable for custom configuration
- 190 x 558 x 352 mm (H x W x D)
- 32 injectors (E 351) 4 x 160 mm
- 32 clips (E 353)



E 944 Modular injector insert

- Injector unit for narrow-necked laboratory glassware, 500-1000 ml
- For use with E 941
- Forced air drying through injectors
- 250 x 558 x 352 mm (H x W x D)
- Injectors are removable for custom configuration
- 15 injectors (E 352), 6 x 220 mm
- 15 clips (E 354)



E 945 Modular insert

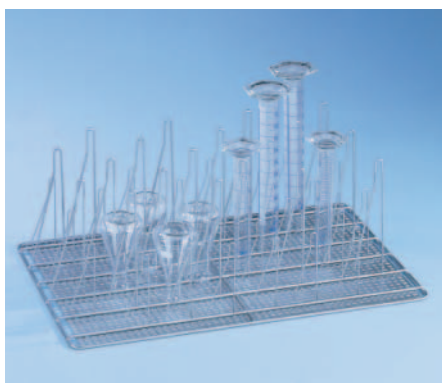
- Support frame for use with E 941
- For holding inserts for wide-mouth glassware such as the E 960, E 963 or E 965



E 947 Modular injector insert

- For centrifuge tubes, vials, test tubes
- For use with E 941
- Includes 88 jets, 2.5 x 110 mm

Inserts for Baskets, Flasks and Wide-mouthed Glassware



E 960 Half insert

- Contains 46 spring clips to secure glassware
- For narrow-necked items not requiring injection
- For use in E 935, E 975 or E 945
- 185 x 357 x 522 mm (H x W x D)



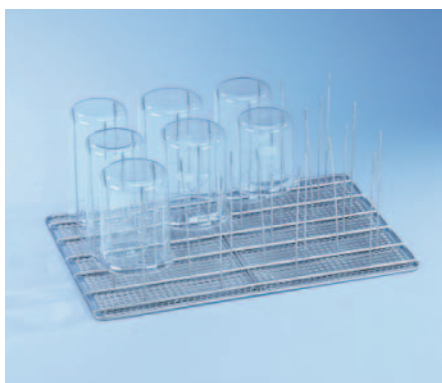
E 963 Half insert

- Contains 33 holders
- For beakers up to 250 ml or other wide mouthed items not requiring injection
- For use in E 935, E 975 or E 945
- 155 x 357 x 522 mm (H x W x D)



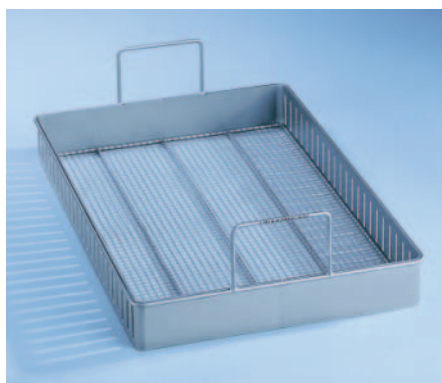
E 965 Half insert

- Contains 15 holders
- For beakers 250–600 ml or other wide mouthed items not requiring injection
- For use in E 935, E 975 or E 945
- 173 x 357 x 522 mm (H x W x D)



E 967 Half insert

- Contains 12 holders
- For beakers 600–1000 ml or other wide mouthed items not requiring injection
- For use in E 935, E 975 or E 945
- 203 x 357 x 522 mm (H x W x D)



E 984 Half Basket

- For various items
- Can be combined with multiple E 986 support frames
- Dimensions: 65 x 371 x 572 mm (H x W x D)



E 986 Support Frame

- For various items
- Used in E 984 basket

Various Options and Accessories for G 7827/28



Drying Unit

- For fast, particulate free drying
- Adjustable temperatures from 60 - 115°C
- Adjustable time from 3 - 240 minutes
- Two time / temperature settings per cycle
- Cool down step to make glassware safe to handle at the end of the cycle
- Dual pre-filters rated 95% efficient for 200 hours
- S-Class HEPA filter rated 99.992% efficient for 500 hours



Steam Condenser

- For use when no ventilation, or air conditioned ventilation system is used
- Heat exchange system condenses steam, and sends it to the drain



SBW Base

- Simplifies machine installation
- Acts as a drip tray

SBWR Mobile Base

- Mobile base equipped with locking rollers
- Allows machine to be easily moved away from the wall for service access
- Simplifies machine installation
- Recommended if machine has to be placed 450 mm or closer to wall
- Acts as a drip tray



MAV Enclosure Kit

- Provides an enclosure for the drying and steam condenser units
- Includes vented, lockable service panels

G 7827 and G 7828 installations require either an SBW or SBWR base.

**Transfer Trolley**

- Can be docked and coupled to the washer for easy transfer of baskets
- Rollers allow smooth transfer of baskets from trolley to washer-disinfector
- A locking mechanism secures the transfer trolley to the unit
- Includes four locking wheels

**Internal Printer Module**

- For machine and process documentation
- 6 pin printer with RS-232 interface
- Paper format: 58 mm roll