

## Perfect Analytical-Grade Reprocessing of Laboratory Glassware



# A clear decision in favour of Miele – A systematic approach from Miele Professional to the reprocessing of laboratory glassware



In developing reprocessing solutions for laboratory glassware, Miele Professional has always placed its focus on close cooperation with the experts in industry, with research laboratories and with highly reputable glassware manufacturers. The result of this cooperation based on trust and innovation are machines and processes which convince discerning users all along the line.

## **Quality**

Reproducible analyses are built on quality – on the quality of laboratory glassware and on the quality of reprocessing. Miele's standards of quality stand like a rock: A mature and sophisticated design and high-quality materials are the foundation for the first-class reputation of Miele Professional in laboratories. Miele's Manufacturer Direct Service is renowned for its excellence.

## **Performance**

Lab washers from Miele Professional excel in terms of their superior performance. A wide range of accessories and processes ensures perfect results and a high throughput, even in highly specialized applications. This ensures that valuable laboratory glassware are cared for and ready for use again in next to no time.

## **Efficiency**

You will see a return on your investment from the first use. Low operating costs, ultra-low consumable costs, combined with a durability that ensures a long operating life meaning you will save money for years to come.



Miele Professional is a decision in favour of top performance and quality. High-quality machines which rise to meet expectations each and every day are the key to the high trust commercial users place in Miele.

#### **Dependability**

As a company now run by its fourth-generation proprietors, Miele remains true to its responsibility to its products and processes, its employees and business partners and to natural resources.

- Product development consistently in tune with the goals of quality, durability and sustainability
- Ground-breaking innovations “Made in Germany”
- Award-winning ergonomics, functionality and product design
- Entire systems from a single supplier
- Lower operating costs over entire product life cycle (Total Cost of Ownership)
- Highly commended after-sales service offering blanket geographical coverage and a fast response







# Miele advantages - Never be satisfied with less

Lab washers from Miele Professional represent a commercial-grade solution for laboratory glassware for analytical experiments. This approach is particularly gentle on materials and is recommended by leading manufacturers of laboratory glassware.



## Greater capacity

- High capacity (e.g. up to 130 injector nozzles in combination with the modules for pipettes and laboratory glassware), achieved through optimized chamber dimensions and a completely redesigned range of load carriers, saves time, storage space and costs.
- Rear basket docking enables full use of space in load carriers.
- Laboratory glassware turnaround is increased and work is sped up at peak hours.



## Greater purity

- Excellent cleaning performance.
- Variable-speed pump for perfect spray pressure in all program phases.
- Laser technology is used to weld the chamber sections to give a perfectly smooth, crevice-free finish for the ultimate in hygiene.
- No heater elements in the wash chamber.
- Multi-stage filtration system is highly efficient in removing particulate soil from water in circulation.
- Spray pressure and spray arm monitoring detects any loss in pressure as well as load items preventing spray arm rotation.
- Conductivity monitoring ensures required water quality.



## Greater flexibility

- A modular basket concept offers maximum flexibility and intuitive operation as modules can be used in different combinations and can easily be reconfigured.
- Wide range of combination options guarantees flexibility in catering for different loads.
- Reduction in number of load carriers needed saves both on investments and storage space.
- In addition to a broad selection of standard programs, client-specific programs ensure that reprocessing suits the type of soil and the type and quantity of laboratory glassware.

# The new lab washers

## PG 8504, PG 8583, PG 8593 and PG 8583 CD



Lab washers	PG 8504	PG 8583	PG 8593	PG 8583 CD
Width	600mm (23 5/8")	600mm (23 5/8")	600mm (23 5/8")	900mm (35 3/8")
Height, Depth [mm]	835 (820*), 600	835 (820*), 600	835 (820*), 600	835, 700
Height, Depth [in.]	32 7/8 (32 1/4*), 23 5/8	32 7/8 (32 1/4*), 23 5/8	32 7/8 (32 1/4*), 23 5/8	32 7/8, 27 1/2
<b>Cycle capacity</b>				
Laboratory vials	128	128	128	128
Pipettes	98	98	98	98
Mixed load of laboratory vials and pipettes	130	130	130	130
Integrated Conductivity meter	–	–	–	•
Drying	–	EcoDry	DryPlus	DryPlus
Integrated dispenser pump	–	2	1	2
Drawer for 5 l supply canisters	–	–	–	•
Electrical connection 3N AC 208 V, 60 Hz	•	•	•	•
Total rated load [kW]	6.1	6.2	6.2	6.2
Mat. number	62.8504.01CDN	62.8583.04CDN	62.8593.01CDN	62.8583.50CDN
With oil/grease resistant seals		62.8583.71CDN		

\* without lid

# Programs, cycle times, consumption

PG 8504	Cleaning				Drying		
	Cycle time [mins.]	CW [l]	HW [l]	DI [l]	Energy [kWh]	Cycle time [mins.]	Energy [kWh]
Normal	35	26.0		9.0	1.9		
Medium	36	26.0		9.0	2.0	-	-
Extended	42	35.0		9.0	2.2	-	-
DI water rinse	6	-		10.0	0.01	-	-
Rinse	4	10.0	-	-	0.01	-	-
<b>PG 8583</b>							
Universal	41	4.5	31.5	18.5	1.8	2	-
Standard	34	5.0	14.0	18.5	1.7	1	-
Intensive	43	4.5	23.5	27.5	2.0	2	-
Inorganica	33	5.0	24.0	27.5	1.9	1	-
Organica	34	-	37.0	18.5	2.0	2	-
Injector Plus	45	6.0	42.0	24.0	2.0	2	-
Pipettes	48	7.5	37.5	45.0	1.9	1	-
Plastics	40	36.0	-	18.5	1.7	-	-
Mini	23	-	19.0	9.5	1.0	-	-
Oil program	36	-	47.0	18.5	1.9	2	-
Special 93°C-10'	67	11.9	29.6	14.0	3.8	2	-
Demin. rinse	6	-	-	10.0	0.01	-	-
Rinse	4	10.0	-	-	0.01	-	-
<b>PG 8593 / PG 8583 CD</b>							
Universal	41	4.5	31.5	18.5	1.8	37	0.7
Standard	34	5.0	14.0	18.5	1.7	37	0.7
Intensive	43	4.5	23.5	27.5	2.0	37	0.7
Inorganica	33	5.0	24.0	27.5	1.9	37	0.7
Organica	34	-	37.0	18.5	2.0	37	0.7
Injector Plus	45	6.0	42.0	24.0	2.0	37	0.7
Pipettes	48	7.5	37.5	45.0	1.9	47	0.6
Plastics	40	36.0	-	18.5	1.7	52	0.7
Mini	23	-	19.0	9.5	1.0	37	0.7
Oil program	36	-	47.0	18.5	1.9	37	0.7
Special 93°C-10'	67	11.9	29.6	14.0	3.8	79	1.4
Demin. rinse	6	-	-	10.0	0.01	-	-
Rinse	4	10.0	-	-	0.01	-	-
Drying	-	-	-	-	-	40	0.7

Electrical connection: 2 AC 208/240V; 3 AC 208/240V; 60 Hz; 6.2 kW (Heating: 5.4kW, connection to cold water (15°C), hot water (65°C) and demineralized water (15°C))

# Convenience and ergonomics



## Design and user interface

The modern design and the intuitive user interface make for the incredibly simple use of lab washers in the day-to-day running of laboratories.

- The control panel is the central design element and represents an intelligent combination of door handle and control panel. It consists of a single, flush stainless-steel surface with embedded “touch-on-steel” controls.
- Inclined control panel for improved legibility.
- 3-line text display and intuitive user interface for hassle-free operation.
- Programs catering for all types of glassware and soils and vacant program slots for user-specific programs.
- Freely assignable direct-access buttons and individually selectable program names for fast access to routine tasks.
- Flush, smooth control panel and handle surfaces for simple wipe cleaning.



## Ergonomics

An easily accessible salt container in the door and the AutoClose functions simplify the work of those operating these machines.

- The patented door salt container has a capacity of approx. 2 kg. Replenishing the salt no longer requires bending or stooping as the job can be performed standing upright. Similarly, there is no longer any need to remove heavy baskets and load carriers to access the salt container.
- AutoClose: Gentle pressure against the door is sufficient for it to be drawn closed and locked automatically. As a result, only a minimum of effort is required to reliably close and lock the door.



## Highly efficient drying

Depending on the model, the new lab washers feature DryPlus hot-air drying or EcoDry to assist drying by releasing steam.

- EcoDry on the PG8583: The machine door automatically opens at the end of a program once the temperature in the cabinet has dropped below 70°C. Hot, moisture-laden air is released, allowing the load to dry and cool down faster.
- DryPlus hot-air drying on the PG 8593/PG 8583 CD represents an ideal solution when dealing with intricate and narrow-lumened laboratory glassware and equipment. An upstream Class H13/ H14 HEPA filter ensures the reliable removal of particles from the air taken in for drying. The filter is easily accessible via a hatch in the front plinth (PG 8593) or in a side unit (PG 8583 CD).

Feature availability depending on model



# High-performance technology for safe reprocessing



## Hygienic chamber

A completely redesigned chamber on the new lab washers enables high standards of hygiene and purity for analytical experiments.

- Laser technology is used to weld the chamber sections to give a perfectly smooth, crevice-free finish offering no nooks or crannies where blood or debris can accumulate.
- The removal of heater elements from the chamber, removes further potential of build-up of contamination and eliminates the risk of damage to plastic items.
- Greater space in the chamber facilitates a higher capacity per cycle (e.g. 128 laboratory phials or 98 pipettes together with other laboratory glassware).



## Rear basket docking system

The relocation of the docking system for upper and lower baskets and load carriers to the rear of the chamber guarantees a more streamlined water and air circuit and improves the use of resources.

- Shorter circulation paths help minimise pressure losses and reductions in water temperature.
- Automatically self-sealing valves when not in use ensure uniformly high spray pressure.
- Use of same docking system to supply load carriers with water and hot air for internal drying.



## Optimized spray arms

The new spray arm design consistently improves on progress made on previous model series and ensures the ultimate in reprocessing reliability.

- Different nozzle forms ensure the forceful removal of persistent soil and the uniform wetting of wash loads.
- Full spray jet coverage thanks to new arrangement of nozzles on spray arms.
- Lower water consumption per cycle without any trade-off in terms of cleaning performance.



## Safety through constant checks

The new lab washers feature spray pressure and spray arm monitoring and some models also monitor water conductivity. These advanced sensors make a considerable contribution towards ensuring the reliability of reprocessing.

- Blockages caused by protruding load items are immediately detected.
- Spray pressure losses as a result, for example, of excessive foaming is reliably detected.
- Deviations from the selected conductivity level in the final rinse water are reliably detected.
- Thanks to integrated sensors, deviations from the program parameters are immediately recognized, allowing rapid intervention on the part of users.

# Load carriers and inserts offering improved efficiency



In the interests of safety and retaining the value of laboratory glassware and equipment, Miele Professional offers a wide range of accessories, consisting of upper and lower baskets, wash carts and inserts for a variety of glassware types. With the introduction of the PG 85 series, the entire load carrier system has undergone thorough reappraisal and improvement.

## **Great efficiency and versatility**

The new load carriers utilize the available space in the chamber to a higher degree, allowing more laboratory glassware and equipment and other load items to be washed in each cycle. Another benefit accrues from the redesigned water and air circuit: Wash liquor and drying air is fed along a shorter and streamlined circuit and with minimal pressure losses on the way to the spray arms and injector nozzles. Optimum pressure conditions are also created by the automatically self-sealing docking valves when not occupied. The modular nature of the new load carriers represents a further product benefit, facilitating future extensions.

# Sample configurations



## Laboratory glassware, basic

A 101 upper basket/open front  
A 150 lower basket for modules  
2 x A 300 modules/laboratory glassware 2 x 4  
Optional: A 802 nozzle  
for models with powder dispensing



## Laboratory glassware, high throughput

A 100 upper basket for modules  
2 x A 302 modules/laboratory glassware 4 x 8  
A 150 lower basket for modules  
2 x A 301 modules/laboratory glassware 3 x 6  
Optional: A 802 nozzle  
for models with powder dispensing



## Pipettes and other laboratory glassware

A 150 lower basket for modules  
A 303 module for pipettes  
A 301 module for laboratory glassware 3 x 6  
Optional: A 802 nozzle  
for models with powder dispensing



## Measuring cylinders and other laboratory glassware

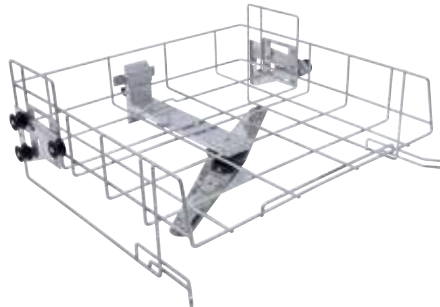
A 150 lower basket for modules  
A 306 module for measuring cylinders  
A 301 module for laboratory glassware 3 x 6  
Optional: A 802 nozzle  
for models with powder dispensing

# Accessories for PG 8504, PG 8583, PG 8593 and PG 8583 CD: Upper and lower baskets, load carriers



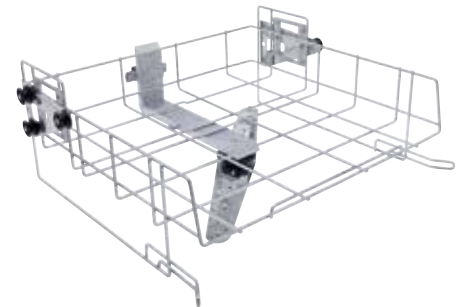
## A 100 upper basket for modules

- Upper basket with two docking pipes
- For the connection of up to two injector modules or inserts
- Automatically self-sealing docking valves
- H 141, W 528, D 525 mm
- Art.No. 69.6100.00D



## A 101 upper basket/open front

- Open front
- For various inserts
- Height-adjustable
- Vertical clearance 160 +/-30 mm
- Built-in spray arm
- H 206, W 528, D 527 mm
- Art.No. 69.6101.00D



## A 102 upper basket/open front

- Open front
- For various inserts
- Height-adjustable
- Vertical clearance 205 +/-30 mm
- Built-in spray arm
- H 206, W 528, D 527 mm
- Art.No. 69.6102.00D



## A 150 lower basket for modules

- Lower basket with two docking pipes
- For the connection of up to two injector modules or inserts
- Automatically self-sealing docking valves
- H 154, W 529, D 546 mm
- Loading dimensions:  
H 235, W 490, D 435 mm
- Vertical clearance with module with plastic support in combination with:  
A 100: H 190 mm  
A 101: H 215 ± 30 mm  
A 102: H 170 ± 30 mm  
A 103: H 255 mm  
without upper basket 440 mm
- Art.No. 69.6150.00D



## A 151 lower basket/open front

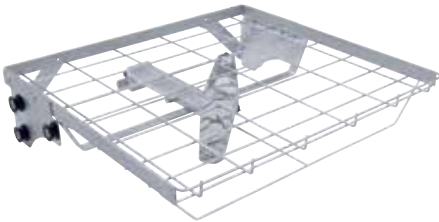
- For various inserts
- H 88, W 529, D 110 mm
- Loading dimensions:  
H with A 100: 235 mm  
H with A 101: 275 ± 40 mm  
H with A 102: 230 ± 30 mm  
H without upper basket 495,  
W 490, D 489 mm
- Art.No. 69.6151.00D



## A 202 load carrier

- For inserts on 2 levels
- Built-in spray arm
- Loading dimensions, lower level:  
H 95, W 519, D 485 mm or  
H 135, W 494, D 500 mm  
(with/without rack inserts)
- Loading dimensions, upper level:  
H 135, W 516, D 462
- 6 additional LuerLock connections
- H 223, W 529, D 542 mm
- Art.No. 69.6202.00D





#### **A 103 upper basket/open front**

- Open front
- For various inserts
- Vertical clearance 95 mm
- Built-in spray arm
- Particularly suitable for the reprocessing of shallow loads in combination with A 202 load carrier.
- H 133, W 528, D 528 mm
- Art.No. 69.6103.00D



#### **E 802 nozzle**

- For use with lab washers with powder dispensing (door)
- For use with injector modules to rinse out powder residue from door dispenser
  - H 187, W 30, D 15 mm
  - Art.No. 9863070

# Injector modules for laboratory glassware for use with A 100 upper basket and A 150 lower basket



## A 300 module for laboratory glassware 2 x 4

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 8 x E 352 injector nozzles (6 x 220 mm)
- 8 x E 354 spring clips for nozzles
- H 241, W 200, D 471 mm
- Vertical clearance:  
Upper basket 165 mm  
Lower basket 165 mm
- Art.No. 69.6300.00D



## A 300/1 module for laboratory glassware 2 x 4

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 8 x ID 220 injector nozzle with plastic support (6 x 220 mm)
- H 242, W 178, D 471 mm
- Vertical clearance:  
Upper basket 186.5 mm  
Lower basket 186.5 mm
- Art.No. 69.6300.01D



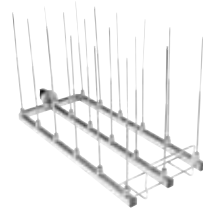
## A 301 module for laboratory glassware 3 x 6

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 6 x ID 110 injector nozzles with plastic supports (2.5 x 110 mm)
- 6 x E 351 injector nozzles (4 x 160 mm)
- 6 x E 353 nozzle supports
- 6 x E 352 injector nozzles (6 x 220 mm)
- 6 x nozzle supports for E 354
- H 241, W 232, D 471 mm
- Vertical clearance:  
Upper basket 165 mm  
Lower basket 165 mm
- Art.No. 69.6301.00D



## A 301/2 module for laboratory glassware 3 x 6

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 18 x ID 160 injector nozzle with plastic support (4 x 160 mm)
- H 181, W 220, D 471 mm
- Vertical clearance:  
Upper basket 186.5 mm  
Lower basket 186.5 mm
- Art.No. 69.6301.02D



## A 301/3 module for laboratory glassware 3 x 6 (not illustrated)

- For butyrometers
- 18 x SD-B injector nozzles for butyrometers
- H 132, W 215, D 471 mm
- Vertical clearance:  
Upper basket 191 mm  
Lower basket 191 mm
- Art.No. 69.6301.03D



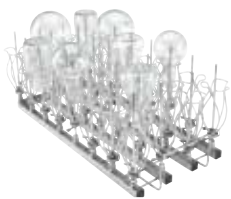
## A 302 module for laboratory glassware 4 x 8

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 32 x ID 110 injector nozzles with plastic supports (2.5 x 110 mm)
- H 181, W 235, D 471 mm
- Vertical clearance:  
Upper basket 160 mm  
Lower basket 160 mm
- Art.No. 69.6302.00D



**A 301/1 module  
for laboratory glassware 3 x 6**

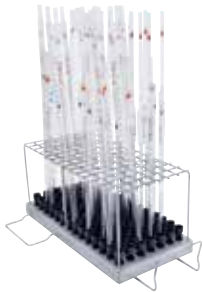
- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 18 x E 351 injector nozzles (4 x 160 mm)
- 18 x nozzle supports for E 353
- H 181, W 216, D 471 mm
- Vertical clearance:  
Upper basket 160 mm  
Lower basket 160 mm
- Art.No. 69.6301.01D



**A 302/1 module  
for laboratory glassware 4 x 8**

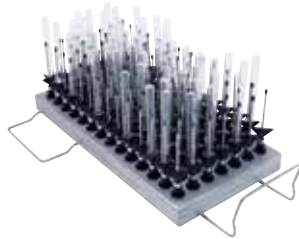
- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, measuring flasks and measuring cylinders
- 32 x E 351 injector nozzles (4 x 160 mm)
- 32 x nozzle supports for E 353
- H 181, W 235, D 471 mm
- Art.No. 69.6302.01D

# Injector modules and load carriers for pipettes and vials



## A 303 module for pipettes

- For e.g. 98 measuring and full pipettes
- Height of retaining frame 150 mm
- H 185, W 225, D 471 mm
- Vertical clearance without upper basket: 450 mm (with A 150 lower basket)
- Vertical clearance with A 102 upper basket: Depending on height setting 165 to 285 mm
- Art.No. 69.6303.00D



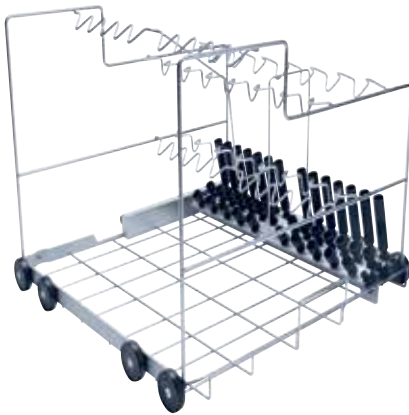
## A 304 module for phials

- For 98 tubes, e.g. centrifuge tubes, phials, test tubes or autosampler tubes
- H 130, W 222, D 471 mm
- Art.No. 69.6304.00D



## A 306 module for measuring cylinders

- For laboratory glassware, in particular large measuring cylinders
- Capacity: four 1-2 l measuring cylinders
- Contact surfaces plastic coated
- H 418, W 235, D 471 mm
- Art.No. 69.6306.00D



## A 200 load carrier

- For 38 pipettes in 3 rows
- 1st row: 10 pipettes, 100 ml, holder spacing 20 mm
- 2nd row: 14 pipettes, 25 ml, holder spacing 26 mm
- 3rd row: 14 pipettes, 10 ml, holder spacing 26 mm
- H 397, W 529, D 546 mm
- Art.No. 69.6200.00D





# Accessories for reprocessing with fully demineralized water



## **PG 8595**

### **Aqua Purificator**

- Housing unit for 2 water demineralisation cartridges VE P 2000 / VE LP 2800
- Compatible with PG 8504, PG 8583, PG 8593, PG 8583 CD
  - Generally recommended quality for final rinse < 19  $\mu\text{S}/\text{cm}$
  - H 835 (820), W 300, D 600 mm
  - Freestanding unit, can be built under
  - Outer panelling in stainless steel
  - CM Conductivity meter and demineralization cartridges sold separately
  - Art.No. 69.8595.02D



## **CM ConductivityMeter**

- Conductivity module for water demineralization cartridges VE P 2000 and VE LP 2800
- Single-line, illuminated display
  - 10-point measurement in 0 - 199.9  $\mu\text{S}/\text{cm}$  range
  - Optical and acoustic "change cartridge" indicator
  - Optical and acoustic fault indicator
  - Wall bracket
  - Connection to external LED (optional)
  - The device comes with a sensor cell and 3/4" hoses for connection to the cartridge and the machine.
  - H 118, W 235, D 110 mm
  - Input: 120V, 60 Hz, 85 mA; Output: 9V, 400 mA, 3.6 VA
  - Art.No. 10.0083.60



## **VE P 2000**

### **Water demineralization cartridge, charged**

- Pressure-proof stainless-steel cartridge
- H 410 mm (16 1/4"),  $\varnothing$  230 mm (9 1/4")
- Complete with vent and pressure relief valve
- Contains 12.5 l of resin
- Art.No. 9773410



#### **LP 2800**

##### **Cartridge for water demineralization, empty**

- Pressure-proof stainless steel cartridge
- Can be charged with 19 l of resin
- Ø 230 mm (9 1/4"), H 570 mm (21")
- With vent and pressure relief valve
- Art.No. 9782590



#### **E 315 disposable resin**

- 20 l homogenous, mixed-bed resins for LP 2800
- Box with 2 x 10 l bags, vacuum-sealed in plastic bags
- Replacement filter bag
- Art.No. 3830350

#### **E 316 refill set**

- Plastic barrel with lid and funnel for 30 l of disposable resin
- Art.No. 3830360

# Accessories for dispensing process chemicals



## PG 8596 dispenser unit

Housing unit for process chemicals and dispenser modules

- H 835 (820), W 300, D 600 mm
- Compatible with PG PG 8504, 8583, PG 8593
- Freestanding unit, can be built under
- Unit with removable door
- Outer panelling in stainless steel
- Interior dimensions:  
H 690 / 380 / 285 mm  
(top drawer removed / lower / upper drawer), W 250 mm, D 555 / 425 mm  
(without / with drip tray and dispenser modules)

2 levels:

Removable telescopic drawers with drip tray liners for canisters containing process chemicals

## Canister sizes

Accommodates a total of 6 x 5 l canisters (L 245 x W 145 x H 225 mm\*).

Lower drawer offers space for larger canisters:

- 2 x 10 l, 140 x 193 x 307 mm
- 2 x 10 l, 223 x 203 x 321 mm
- 2 x 10 l, 229 x 193 x 323 mm
- 2 x 10 l, 194 x 204 x 353 mm
- 1 x 20 l, 289 x 233 x 396 mm
- 1 x 25 l, 288 x 234 x 456 mm
- Art.No. 69859602



## DOS K 85/1 dispenser module

- For liquid alkaline detergents and chemical disinfectants, neutralising agent
- Peristaltic pump, adjustable via machine's electronic controls
- Integrated dispenser monitoring function ensuring high level of process security
- Short suction lance (200 mm) for 5 l canister, incl. level fill monitoring
- Length of connection cable: 3.00 m
- Length of suction hose: 1.80 m
- Art.No. 9961080



## DOS K 85 dispenser module

- As DOS K 85/1
- With long suction lance (300 mm) for 5 l and 10 l canisters
- Art.No. 9961070

\* Only possible with DOS K 85/1 dispenser with short siphon.



# Accessories

## Bases

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### **UG 30-60/60-85 base**

- For use on PG 8583 and PG 8593
- Stainless-steel base, bolted to machine
- H 300, W 600, D 600 mm
- Art.No. 10087350



### **UG 30-90/60-85 base**

- For use with PG 8583 and PG 8593 in combination with PG 8595 or PG 8596
- Stainless-steel base, bolted to machine
- H 300, W 900, D 600 mm
- Art.No. 10087360



### **UG 30-90/70-85 base**

- For use with PG 8583 CD
- Stainless-steel base, bolted to machine
- H 300, W 900, D 700 mm
- Art.No. 10210600





# Lab washers

## PG 8535 and PG 8536



Lab washers	PG 8535	PG 8536
Width, height, depth [mm]	900, 820, 700	900, 1175, 700
Width, height, depth [in]	35 7/16, 32 1/4, 27 9/16	35 7/16, 46 1/4, 27 9/16
Integrated HEPA hot air drying unit	•	•
<b>Load capacity</b>		
Laboratory vials	128	128
Pipettes	98	98
plus other laboratory glassware	•	•
Drying	DryPlus	DryPlus
Integrated dispenser pump	2	2
Space in drawer for 5 l canisters	3	4
Electrical connection 3 AC 208 V, 60 Hz	•	•
Total rated load [kW]	6.0	6.6



# Programs, Cycle Times

PG 8535 with steam condenser	Cleaning				Drying
	Cycle time [mins.]	CW [l]	HW [l]	DI [l]	Cycle time [mins.]
SPECIAL 93°C-10'	41	14.7	16.8	11	25
DES-VAR-TD	41	23.7	16.8	11	25
LAB-STANDARD	33	7.3	16.3	22	25
ORGANICA	41	2.0	32.0	25	25
ANORGANICA	39	2.0	32.0	34	25

Heating: 5.4 kW (3 AC 208 V 60 Hz)

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

PG 8536	Cleaning				Drying
LAB-STANDARD	43	8.5	38.5	18	25
LAB-UNIVERSAL	45	8.5	55	21	25
LAB-INTENSIVE	53	8.5	40	48	25
LAB-PIPETTES	56	11.5	74.5	44	25
PLASTICS	48	62.5	-	20	35
ORGANICA	51	1	64	21	25
ANORGANICA	53	4	49	48	25
LAB-OIL	57	1	80.5	21	25
DES-VAR-TD	64	36.3	24.2	16	25
SPECIAL 93/10	58	22	25.5	15.5	25

Heating: 5.4 kW (3 AC 208 V 60 Hz)

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

# Greater precision and security: Innovations for perfect reprocessing



## PerfectTouch Control

Simple to use, easy to clean: PG 8535/PG 8536 lab washers feature a touch-sensitive display. All controls lie below a perfectly flush and chemical-proof glass screen embedded into the machine control panel. Its precise response characteristics facilitate program selection at the touch of a fingertip, even when the user is wearing gloves. All messages appear in plain text which is user-definable.



## PerfectPure Sensor

In laboratories, it is essential that chemical residue on loads is prevented as such residue would interfere with subsequent analytical results and cultures. To monitor residuals, the PG 8536 offers the option of PerfectPureSensor conductivity monitoring. This maintenance-free system represents a contact-free way of measuring conductivity in the rinse water in the 5–40  $\mu\text{S}/\text{cm}$  and 40  $\mu\text{S}/\text{cm}$  – 100  $\text{mS}/\text{cm}$  ranges. Undesirable substances, e.g. process chemical salts, are reliably detected and can be minimized by repeating the final rinse cycle until values drop once again to below permissible levels.



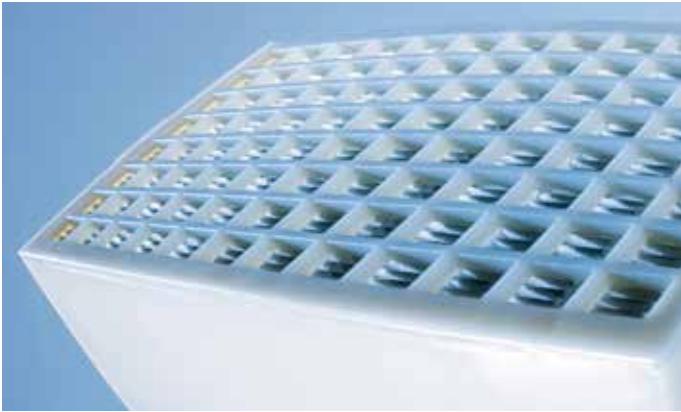
## PerfectFlow

The precise dispensing of all process chemicals is a key factor in ensuring reliable, reproducible reprocessing results. Miele's new PerfectFlow sensor using ultrasound technology offers considerably greater safety margins than conventional systems. The PerfectFlow sensor is a standard feature on the PG 8536 and guarantees a hitherto unparalleled degree of precision in controlling and monitoring volumetric flow, independent of viscosity and ambient temperatures. It operates independently of the dispensing system itself, can be calibrated and adjusted, and is able to issue alerts or abort programs in the event that prescribed tolerances are exceeded.



### **PerfectSpeed Sensor**

Optimum cleaning and disinfection cannot be achieved if the proper functioning of the spray arms is impaired. The PerfectSpeedSensor, a standard feature on PG 8535 and PG 8536 models, monitors the rotation of each individual spray arm – from the arms in the machine to the ones on board baskets and wash carts, thereby ensuring reproducible results with a good margin of safety. The control unit makes use of a sensor strip outside the chamber to monitor the passage of spray arms, ensuring that speeds are within the prescribed range. If this is not the case, for instance when excessive foaming or dislodged load items cause a blockage or slow spray arms down, a display warning is issued or the program cycle is interrupted.



### **PerfectHEPA Drying**

Exceptional cleanliness, particularly in the drying phase, is guaranteed by PerfectHepaDrying, another standard feature on PG 8535 and PG 8536 models. The system relies on a HEPA-grade temperature-resistant Class 13 filter able to filter out more than 99.95% of particles. This filter is located directly upstream from the chamber and presents a highly effective barrier to undesirable particles entering the system together with drying air. Furthermore, the design of the air circuit has been optimized to ensure that all parts of the cabinet are reliably exposed to hot air.



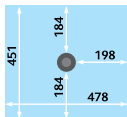
# Accessories for PG 8535 and PG 8536

## Upper and lower baskets



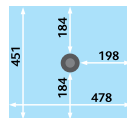
### O 188/2 upper basket/open front

- Open front
- For various inserts
- Vertical clearance 165 mm
- Height adjustment range +/- 20 mm
- Built-in spray arm with magnetic tip for spray arm sensing
- H 215, W 531, D 475 mm
- Art.No. 69.1188.02



### O 190/2 upper basket/open front

- As O 188/2
- Vertical clearance 215 mm
- Built-in spray arm with magnetic tip for spray arm sensing
- H 265, W 531, D 475 mm
- Art.No. 69.1190.02



### O 175 upper basket/injector unit with drying connector

- For narrow-necked laboratory glassware
- 33 injector nozzles
- Vertical clearance 170 mm
- Connection for hot-air drying unit
- H 250, W 531, D 475 mm, H with drying connection 412 mm
- Powder dispensing not possible

#### Supplied as standard with:

- 33 nozzles (E 351), Ø 4 x 160 mm
- 33 clips for nozzles 4 x 160 mm (E 353)
- Art.No. 69.1175.01

\* Clearance may be less, depending on type of laboratory glassware



### O 184 upper basket/injector unit with drying connector

- For items such as centrifuge tubes, phials, test tubes for fraction collectors or autosampler tubes
- 96 injector nozzles
- Vertical clearance 170 mm
- Connection for hot-air drying unit
- H 260 (468 with drying connector), W 531, D 475 mm
- Powder dispensing not possible

#### Supplied as standard with:

- 96 nozzles, Ø 2.5 x 110 mm with plastic support
- Art.No. 69.1184.01



### U 874/1 lower basket/open front

- Open front
- For various inserts
- Clearance heights in combination with upper basket:
  - O 175 TA approx. 230 mm +/- 20 mm
  - O 184 approx. 205 mm +/- 20 mm
  - O 187 approx. 225 mm +/- 20 mm
  - O 188/2 approx. 270 mm +/- 20 mm
  - O 190/2 approx. 220 mm +/- 20 mm
- Art.No. 69.1874.03



### U 175/1 lower basket/mobile injector unit

- For narrow-necked glassware
- 33 injector nozzles
- Vertical clearance approx. 170 mm
- Only in conjunction with O 175/O 187/O 184 upper baskets
- H 250, W 531, D 475 mm

#### Supplied as standard with:

- 33 nozzles (E 351), Ø 4 x 160 mm
- 33 X clips for nozzles (E 353), 4 x 160 mm
- 1 irrigation nozzle
- Art.No. 69.1175.03



### U 184/1 lower basket/mobile injector unit

- For items such as centrifuge tubes, phials, test tubes for fraction collectors or autosampler tubes
- 96 injector nozzles
- Only in conjunction with

O 175/O 187/O 184 upper baskets

- Vertical clearance 170 mm
- H 250, W 531, D 515 mm

#### Supplied as standard with:

- 96 nozzles 2.5 x 90 mm with plastic supports
- Art.No. 69.1184.03



# Injector wash carts for pipettes for PG8535 and PG8536



## **E 408 injector wash cart with drying connection**

- For 96 pipettes up to 450 mm
- Compartment size 16 x 16 mm
- Complete with retaining frame, height 150 mm
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition/spray arm sensing
- Art.No. 69.5408.01



## **E 405/1 injector wash cart with drying connection**

- For 38 pipettes in 3 rows:
  - Row 1: 10 pipettes 100 ml (length up to 550 mm), Spacing 20 mm,
  - Row 2: 14 pipettes 25 ml, Spacing 26 mm
  - Row 3: 14 pipettes 10 ml, Spacing 26 mm
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition/spray arm sensing
- Art.No. 69.5405.02



# Wash carts for narrow-necked glassware for PG8535 and PG8536



## E 340 injector wash cart 1/2

- For narrow-necked glassware
- 19 injector nozzles
- One half vacant for other inserts

### Supplied as standard with:

- 3/3/3 nozzles, Ø 4.0 x 140/160/180 mm
- 3/3/4 nozzles, Ø 6.0 x 200/220/240 mm
- 1 x rinse nozzle for door powder dispenser
- Art.No. 69.5340.01



## E 385 injector wash cart unit 1/2 with drying connection

- As per E 355, but with connection for hot air drying unit
- 16 injector nozzles
- Holder for ML/2 magnetic strip for automatic wash cart recognition

### Supplied as standard with:

- 7 x E 351 injector nozzles, Ø 4.0 x 160 mm
- 7 x E 353 clips for nozzles, 4.0 x 160 mm
- 9 x E 352 injector nozzles, Ø 6.0 x 220 mm
- 9 x E 354 clip for nozzles, 6.0 x 220 mm
- 1 x rinse nozzle for door powder dispenser
- Art.No. 69.5385.01



## E 380 injector wash cart 1/1 with drying connection

- As E 350 but with 32 nozzles/clips
- Connection for hot-air drying unit

### Supplied as standard with:

- 14 x E 351 injector nozzles, Ø 4.0 x 160 mm
- 14 x E 353 clips for nozzles, 4.0 x 160 mm
- 18 x E 352 injector nozzles, Ø 6.0 x 220 mm
- 18 x E 354 clips for nozzles, 6.0 x 220 mm
- 1 x rinse nozzle for door powder dispenser
- Art.No. 69.5380.01



## E 414 injector wash cart 1/1 with drying connection

- As E 329, but with 37 nozzles
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic wash cart recognition/spray arm sensing

### Supplied as standard with:

- 4/3 nozzles, 2.5 x 90/110 mm
- 5/5/5 nozzles, Ø 4.0 x 140/160/180 mm
- 5/5/5 nozzles, 6.0 x 200/220/240 mm
- 1 x rinse nozzle for door powder dispenser
- Art.No. 69.5414.01



## E 331 injector wash cart 1/1

- For butyrometers
- 39 injector nozzles

### Supplied as standard with:

- 39 SD-B injector nozzles for butyrometers
- 1 x rinse nozzle for door powder dispenser
- Art.No. 69.5331.01

# Inserts for test tubes, funnels, beakers, wide-necked glassware for laboratory glassware washers



## E 103/1 insert 1/4

- For approx. 200 test tubes, max. 12 x 75 mm
- 6 compartments, incl. A 13 lid
- Mesh size 8 x 8 mm
- H 102 (122), W 200, D 320 mm
- Art.No. 69.5103.02

## E 104/1 insert 1/4

- As E 103, but for test tubes, max. 12 x 105 mm, incl. A 13 lid
- Mesh size 8 x 8 mm
- H 132 (152), W 200, D 320 mm
- Art.No. 69.5104.02

## E 105/1 insert 1/4

- As E 103, but for test tubes, max. 12 x 165 mm, incl. A 13 lid
- Mesh size 9 x 9 mm
- H 192 (212), W 200, D 320 mm
- Art.No. 69.5105.02

## E 139/1 insert 1/4

- As E 103, but for test tubes, max. 12 x 200 mm, incl. A 13 lid
- Mesh size 9 x 9 mm
- H 223 (243), W 200, D 320 mm
- Art.No. 69.5139.02



## E 149 insert 1/4

- For 80 test tubes, max. 16 x 105 mm, incl. A 13 lid
- 80 compartments, 18 x 18 mm
- Mesh size on base 8 x 8 mm
- Lid available from Spares Mat. no.: 05618390
- H 132 (152), W 200, D 320 mm
- Art.No. 38.08800



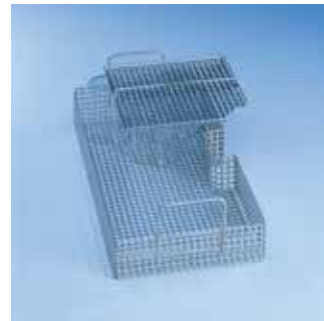
## A 13 lid

- As replacement for E103, E104, E105 and E139 inserts
- Stainless steel
- 1 mm wire mesh
- 8 mm mesh gauge
- 4 mm all-round frame
- Art.No. 38.10200



## AK 12 insert 1/2

- For funnels, beakers, wide-necked glassware, etc.
- H 67/127, W 225, D 442 mm
- Art.No. 38.30510



## A 14 1/4 lid

- For AK 12 insert
- Stainless steel
- 7 x 7 mm perforations, 3 mm ridge
- H 20, W 210, D 210 mm
- Art.No. 39.81970

# Inserts for beakers, wide-necked glassware, measuring cylinders for laboratory glassware washers



## **E 106 insert 1/2 (illustrated)**

- For wide-necked glassware, measuring cylinders, etc.
- 10 spring hooks, H 175 mm
- 16 spring hooks, H 105 mm, spacing approx. 60 mm
- H 186, W 195, D 430 mm
- Art.No. 38.08310

## **E 106/1 insert 1/2**

- 26 small spring hooks, H 105 mm, spacing approx. 60 mm
- H 116, W 195, D 410 mm
- Art.No. 38.08320

## **E 106/2 insert 1/2**

- 13 large spring hooks, H 175 mm, spacing approx. 85 mm
- H 186, W 180, D 420 mm
- Art.No. 38.08330



## **E 109 insert 1/2 (illustrated)**

- For 21 beakers up to 250 ml
- 21 x 3 spikes
- H 155, W 230, D 460 mm
- Art.No. 38.08360

## **E 110 insert 1/2**

- For 10 beakers, 250 ml to 600 ml
- 10 x 3 spikes
- H 175, W 230, D 460 mm
- Art.No. 38.08390

## **E 111 insert 1/2**

- For 8 beakers, 600 to 1,000 ml
- 8 x 3 spikes
- H 205, W 230, D 460 mm
- Art.No. 38.08420

## **E 144 insert 1/2**

- For 18 beakers up to 250 ml
- 18 x 3 spikes
- H 131, W 200, D 445 mm
- Art.No. 38.08710

# Inserts for Petri dishes, watch glasses, micro-titre plates, etc. for laboratory glassware washers



## E 118 insert 1/1

- For 38 Petri half-dishes, 100 mm
- 38 holders, Height 70 mm
- Spacing approx. 26 mm
- H 120, W 460, D 445 mm
- Art.No. 38.30270



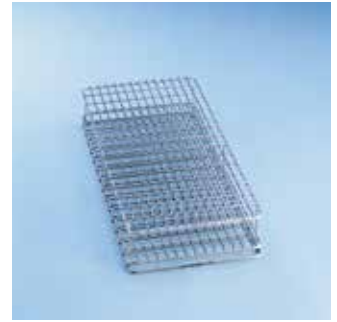
## E 136 insert 1/1

- For 56 Petri half-dishes, 100 mm
- 56 holders, Height 70 mm
- Spacing approx. 26 mm
- H 145, W 485, D 445 mm
- Art.No. 38.30280



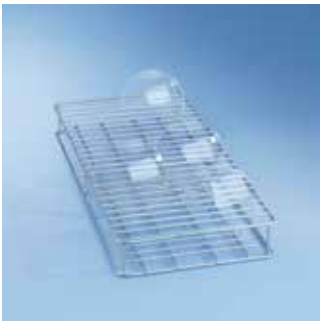
## E 137 insert 1/1 for E 136

- For 56 Petri half-dishes, 100 mm
- 56 holders, Height 70 mm
- Spacing approx. 26 mm
- H 95, W 485, D 445 mm
- Art.No. 38.30290



## E 134 insert 1/2

- For 210 slides
- 210 compartments 26 x 11 mm
- Wire gauge 3 mm
- H 73, W 200, D 445 mm
- Art.No. 38.08600



## E 402 insert 1/2

- For 44 Petri dishes, 80-125 mm
- 23 supports, distance between supports 15 mm
- H 53, W 200, D 445 mm



## E 403 insert 1/2

- For 105 Petri dishes, 50-60 mm
- 36 supports, distance between supports 9 mm
- H 35, W 200, D 445 mm



## E 493 load carrier

- For use in PG 8536
- For 8 x E 494 inserts for micro-titre plates on 4 levels
- To ensure optimum wash results, the lower spray arm should be replaced with the enclosed flange
- Clearances from bottom:
  - Level 1: 70 mm
  - Level 2: 85 mm
  - Level 3: 85 mm
  - Level 4: 90 mm



## E 494 insert 1/2

- For 5 micro-titre plates
- H 35, W 205, D 440 mm

# Accessories



## E 336 irrigation sleeve

- Plastic, with screw fitting
- For pipettes (max. length 445 mm) in injector mobile units
- Ø 11 mm
- Length 121 mm
- Art.No. 3809390



## E 351 injector nozzle

- For injector mobile unit
- For combination with E 353
- Ø 4 x 160 mm, screw thread

## E 352 injector nozzle

- For injector mobile unit
- For combination with E 354
- Ø 6 x 220 mm, screw thread

## E 353 clip for nozzle

- For E 351 injector nozzle
- Height-adjustable
- Ø 4 x 160 mm

## E 354 clip for nozzle

- For E 352 injector nozzle
- Height-adjustable
- Ø 6 x 220 mm

## E 470 injector nozzle with clip

- For injector mobile unit
- Ø 2.5 x 90 mm, screw thread



## Injector nozzle with plastic support

### ID 90

- Ø 2.5 x 90 mm

### ID 110

- Ø 2.5 x 110 mm

### ID 140

- Ø 4 x 140 mm

### ID 160

- Ø 4 x 160 mm

### ID 180

- Ø 4 x 180 mm

### ID 200

- Ø 6 x 200 mm

### ID 220

- Ø 6 x 220 mm

### ID 240

- Ø 6 x 240 mm



## SD-B injector nozzle for butyrometers

- For E 331 mobile unit
- L 240 mm incl. thread, 4 x 140 mm plus welded, compressed nozzle, 1.5 x 100 mm



## E 362 blanking screw

- M 8 x 1 thread, to close connectors on load carriers

# Accessories for laboratory glassware washers



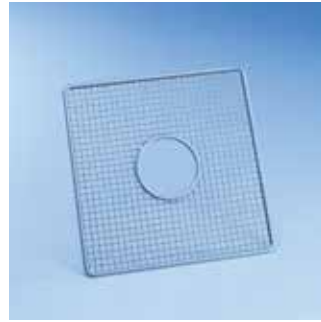
## A 2 cover net 1/2

- Plastic-coated metal frame with plastic netting
- For 1/2 inserts
- 216 x 456 mm
- Art.No. 38.30460



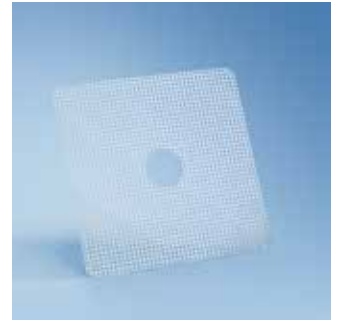
## A 6 cover net 1/2

- Stainless-steel frame with polyamide mesh
- Particularly resilient and durable
- 215 x 445 mm
- Art.No. 59.5006.01



## A 5 cover

- Stainless-steel frame with plastic net (material quality PA 12)
- For O and U 184, E 747, E 947
- H 8, W 280, D 280 mm
- Art.No. 56.37190



## A 11/1 insert 1/1 Underframe

- With perforations 7 x 7 mm
- For upper or lower basket
- Stainless steel
- W 429, D 429 mm
- Art.No. 69.5011.02

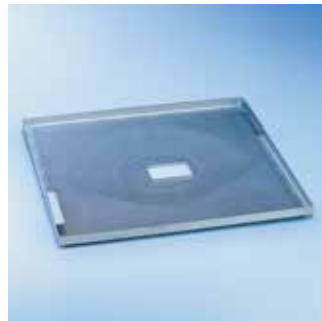
## A 3 cover net 1/4

- Plastic-coated metal frame with plastic netting
- For 1/4 inserts
- 206 x 206 mm
- Art.No. 38.30470



## A 12/1 insert 1/2 sub-frame

- With perforations 7 x 7 mm
- For upper or lower basket
- Stainless steel
- W 429, D 224 mm
- Art.No. 6629670



## E 319/3 insert 1/1

- Surface filter for coarse soil
- Contains soiling e.g. labels from laboratory glassware, glass splinters etc.
- W 500, D 488 mm
- Art.No. 6477070



# Retrofittable accessories

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## **Retrofittable spray arm with magnet**

- To use spray arm sensing, spray arms with magnetic tips can be retrofitted



## **ML/2 magnetic strip**

- Magnetic strip for automatic load carrier recognition
- Pre-condition for use of spray arm sensing
- 5 magnets, configurable
- 15 possible combinations

# Accessories Transport trolleys, bases

## Accessories Dispensing systems



### MT Mieltrans trolley

- Trolley for storing and transporting baskets and inserts
- 4 levels, each height-adjustable by 102.5 mm
- 4 lockable wheels
- Loading dimensions: 549 x 599 mm
- H 1985, W 616, D 662 mm



### MC/1 Mielcar trolley

- For loading laboratory glassware washers and handling baskets and inserts
- 4 wheels, of which 2 are lockable
- 2 levels (trough design), rail handle and docking panel
- Docking height: H 640–885 mm, infinitely adjustable
- For PG 8535, in combination with base (H 30 cm)
- H 1000, W 630, D 814 mm (with docking plate raised D 960 mm)



### UC 30-90/70-78 pedestal, stainless steel

- Can be bolted to machine
- H 300, W 900, D 700 mm



### DOS G 60/1 dispenser module

- For liquid detergents
- Peristaltic pump, adjustable via machine controls
- Short siphon (200 mm) for 5 l canister incl. level monitoring
- Length of connection lead: 1.90 m

### DOS G 60 dispenser module

- As DOS G 60/1
- But with long siphon (300 mm) for 10 l canisters

### DOS G 10 dispenser module

- (not illustrated)
- For liquid dispenser (surfactant, neutralisation agent)
  - Peristaltic pump, adjustable via machine controls
  - Siphon with magnetic float switch for level-fill indicator for 5 l and 10 l containers
  - Conversion kit for longer siphon (10-30 l containers) available via Spares, Mat. no. 5458030.
  - H 118, W 235, D 115 mm

### DOS S 20

(not illustrated)

- Bellows-type dispenser pump for PG8536, retrofittable by Service
- For liquid acidic agents (surfactant, neutralising agent)

### DOS NA 120

(not illustrated)

- Bellows-type dispenser pump for PG8536 incl. ultrasound flow control, retrofittable by Service
- For chemical disinfectant/liquid detergent (chemical disinfectant, liquid detergent, emulsifier)

Product	Main Field of Application	Soiling	Properties
<b>Detergent</b>			
<b>Procure Lab 11 MA (Powder)</b>	For Medical, biological and chemical laboratories. Dispensing recommendation: 2-4 g/l	Good cleaning performance on blood, protein and food residue, good protection against corrosion for laboratory glassware, stainless steel, chrome-plated items, laboratory equipment made from common types of plastic	Mildly alkaline, foam-inhibiting, free from oxidants
<b>ProCare Lab 11 AP (Powder)</b>	Water laboratories, serological institutes, phosphate industry. Dispensing recommendation: 2-4 g/l	Material protection and good cleaning performance on inorganic and organic soils	Alkaline, free from phosphates, oxidative
<b>ProCare Lab 10 MA (Liquid)</b>	For medical, biological and chemical laboratories. Dispensing recommendation: 2-4 ml/l	Good material protection, good cleaning performance on organic soils	Alkaline, versatile, free from oxidants and tensides
<b>Procure Lab 10 AP (Liquid)</b>	Medical, biological, micro-biological, chemical, water laboratories, phosphate industry, laboratories in food processing, cosmetics, pharmaceutical, mineral oil and other industries. Dispensing recommendation: 2-4 ml/l	Good cleaning performance on stubborn or dried-on residue on laboratory glassware and reusable laboratory material	Alkaline detergent with large proportion of dispersants, free from tensides, phosphoric compounds and oxidants. 5-15% polycarboxylates
<b>Neodisher Laboclean FT (Liquid)</b>	For food and pharmaceutical industry, micro- biology, virology, nuclear medicine laboratories as well as labs in paint/dye industry and other industries. Dispensing recommendation: 3-4 ml/l	Removal of nutrient medium residues, blood, organic residues, radioactive residues, residues of tissue cultures and cell films	Alkaline, surfactant-free, oxidising effect, especially suitable for residue-free cleaning of laboratory glassware, infusion flasks, glassware for cell and tissue cultures
<b>Neodisher Laboclean A8 (Powder)</b>	For biological, chemical and medical laboratories as well as in laboratories in food and other industries. Dispensing recommendation: 2-5 g/l	Removal of food residues, protein, starch, blood, protein, pharmaceutical residues, paints and dyes	Alkaline, surfactant-free, oxidising effect, high soil-load capacity, universally applicable
<b>Neodisher Laboclean F (Powder)</b>	For automated glassware cleaning in cosmetics, mineral- and oil industry, food and other industry laboratories. Dispensing recommendation: 2-5g/l	Removal of oil, grease, fat, paraffin, resin, organic dyes and felt-pen markings	Highly alkaline, free of phosphate and surfactants, high complexing and dispersing effect
<b>Neodisher Laboclean LA (Powder)</b>	For automated glassware cleaning in food, cosmetics, pharma, mineral and other industry laboratories. Dispensing recommendation: 2-5 g/l	Removal of oils, grease, waxes, fat, paraffin, resin, salves, creams, organic colouring agents	Highly alkaline with de-foaming effect at temperatures of > 30 °C , high amount of emulsifying and dispersing agents
<b>Neodisher Laboclean GK (Powder)</b>	For automated glassware cleaning in micro- biological, virological, isotope, pharmaceutical, food and nuclear medicine laboratories and other industry. Dispensing recommendation: 3-4 g/l	Removal of nutrient medium and cell culture residues, radioactive contaminants, organic paint/dye and pigment residues	Mildly alkaline, surfactant-free
<b>Neutralization</b>			
<b>ProCare Lab 30C (Liquid)</b>	Medical, biological, micro-biological and chemical laboratories, water laboratories, phosphate industry, laboratories in food, cosmetics and pharmaceutical industry.	Good material compatibility and protection, suitable for sensitive materials, neutralisation of alkaline carryover, acidic pre-wash	Acidic (citric acid), free from tensides, phosphates
	Dispensing recommendation: Neutralising agent: 1-2 ml/l		
	Acidic pre-wash: 3-4 ml/l at 40-60°C		
<b>ProCare Lab 30P (Liquid)</b>	Medical, biological, micro-biological and chemical laboratories, water laboratories, laboratories in food, cosmetics, pharmaceutical, mineral oil and other industries.	Very good rinse action, acidic detergent and neutralising agent	Acidic (phosphoric acid), free from tensides
	Dispensing recommendation: Neutralisation: 1-2 ml/l		
	Acidic pre-wash: 2-3 ml/l at 40-60°C		
<b>Reactivation</b>			
<b>ProCare Universal 61</b>	Water softener salt, 6kg, high-purity grade, lasts approximately 350 cycles at 8 Gr/Gal	Protects glassware and machine from limescale depositions	Coarse special salt for reactivation of built-in water softener



# Service excellence – Functional safety and preservation of values

Miele Professional provides a broad range of advisory services and on-site after-sales service. Miele once again sets the highest of standards. Having service experts who work exclusively on Miele equipment ensures the best possible first time fix rate.



## Comprehensive service from the very start

Even before a machine is installed, Miele's sales force is available to provide in-depth advice. Experienced experts assist in selecting the most suitable machines and configurations to suit individual needs.

## Miele service contracts

### Preventative Maintenance Plan

- Annual inspection
- Maintenance Check
- Pre-emptive replacement of defined parts

### Full Protection Plan

- Annual inspection
- Maintenance check
- Pre-emptive replacement of defines parts
- Coverage of all costs for repairs, labour, travel charges
- No additional out-of-pocket expenses

## Service to meet professional expectations

Highly qualified service technicians support customers with the installation and commissioning of their machines and perform routine tests during use. This pre-emptively avoids downtimes and helps to optimize operating parameters. Regular checks and maintenance prolongs the life expectancy of the machines.

- Quality service through network of service technicians
- Manufacturer direct service network in Alberta, British Columbia, Ontario, Quebec
- First-time fix rates in excess of 90%
- Reliable parts availability policy of having key functional parts available for 15 years after series production ceases

## Customized service contracts and inspections

Miele Professional offers laboratories of all sizes tailored annual service contracts. During the term of these contracts, machines are regularly inspected by Miele's own specialized service technicians. Depending on the type of contract, this includes a functional and safety analysis with respect to all key components and replacement of parts. Scheduled inspection and maintenance appointments prevent breakdowns, extend the working life of machines and contribute towards safeguarding your investment.





# Miele Professional – Quality and service for professionals

Decades of experience, an unwavering pursuit of quality and the power of innovation means that Miele sets the benchmark. High-performance laboratory glassware washers from Miele Professional are recommended by leading manufacturers of laboratory glassware. In combination with accessories specific to models and applications, machines from Miele Professional facilitate the fast and simple reprocessing of all types of glassware.

## Performance

- Thorough yet gentle reprocessing with dependable results
- Processes engineered to reflect the needs of both machines and laboratory glassware
- Complete system from one single supplier consisting of perfectly matching components (machines, chemicals, software, service)

## Safety and convenience

- Ergonomic controls simplify everyday laboratory work
- Convenient navigation avoids mistakes on the part of the user
- Large, easy-to-read text display
- Fully automatic protocolling and documentation of reprocessing

## Quality and economic operation

- Highest-quality materials and workmanship
- Superior product longevity and reduced need for maintenance
- Short cycle times and sparing use of resources

## Service

- Excellent Miele manufacturer-direct service operation
- Comprehensive advisory services covering planning, requirement assessment and financing
- Customized service contracts guaranteeing functional safety and preserving values



### Miele Experience Centres

Miele Limited Canada Headquarters  
Professional Division  
161 Four Valley Drive  
Vaughan, ON L4K 4V8  
Tel: 1-888-325-3957  
Fax: 1-800-803-3366  
mieleprofessional.ca  
professional@miele.ca

British Columbia  
69 Smithe Street  
Vancouver, BC V6B 1C3

Alberta  
503 10th Avenue SW  
Calgary, AB T2R 0A8

Quebec  
3055 Jues-Brillant Street  
Laval, QC H7P 6B2

### Forever Better

Since 1899, Miele – a family run company – has subscribed to a clear corporate philosophy condensed into the two words “Forever better”. This far-reaching claim is the bedrock of Miele’s proverbial quality and sustainability and the power of innovation of a brand “Made in Germany”. A brand promise which gives commercial users the certainty of having chosen the right product.

### Award-winning

Uncompromising product reliability and service dependability is the reason why customers have repeatedly voted Miele the best and most trustworthy brand. Coveted awards such as the MX Award, the iF and reddot Design Awards and the German Sustainability Prize

### Proficient

Miele Professional has been developing and manufacturing a broad range of high-quality laundry machines, dishwashers, washer-disinfectors and sterilisers for decades. Carefully selected accessories, comprehensive advisory services and a fast-acting Miele service department ensures that machines perform to satisfaction and offer the ultimate in performance and efficiency.

