

# The Flex Series Undercounter Glassware Washers

For Laboratory Applications



-500
| 500 ml | 500 m

More Capacity
Greater Flexibility
Improved Efficiency

### Introducing the Flex Series

Miele Professional has reengineered its undercounter glassware washer line, taking glassware reprocessing to a higher level with the new cutting edge Flex Series Washers. Featuring a completely redesigned wash chamber as well as a powerful variable-speed pump, these new undercounter glassware washers provide more capacity, greater load flexibility and more efficient application specific programs.

For more than 50 years, Miele has been providing advanced glassware systems and application expertise to the pharmaceutical, food processing, petro chemical, flavor, fragrance and cosmetic industries as well as public health, government, forensic and educational laboratories. We offer a full range of glassware washers including undercounter, medium and large chamber models and an industrial parts washer.

Spending years to perfect and improve our undercounter glassware washer line, Miele proudly unveils its innovative, expertly engineered Flex Series which offers the same quality and craftsmanship for which the company has been known for more than 115 years.



# Why Miele



Miele Professional provides the highest quality dishwashing, commercial laundry, laboratory glassware, dental and medical instrument washers. No detail in our products is overlooked. From engineering and program design to build quality and innovation, our machines are vigorously tried and tested by us, and in businesses all over the world. Our objective is simply to make sure our product range includes machines for every need that deliver exceptional results every day.

At Miele, everything we do is guided by our philosophy "Immer Besser" meaning "Forever Better." It was conceived more than 115 years ago by our founders as a mark of Miele's commitment to quality and innovation and remains as true as ever today. It's our attention to detail that makes the difference.

### The Flex Series At A Glance



#### More Capacity

- Completely redesigned chamber with rear docking and no exposed heating elements enables more space for baskets and inserts.
- Ability to clean 98 pipettes in lower level in combination with 32 flasks
- Almost double the capacity for 50 100 ml round bottomed flasks and bottles compared to previous models
- 19 new baskets, modules and inserts generate hundreds of loading combinations
- Three levels of cleaning for smaller items



#### Greater Flexibility

- A new, modular basket system provides 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.



#### Improved Efficiency

- New variable-speed pump improves cleaning capability and allows for new programming options.
- Pump speed increases during Injection Plus program for better cleaning of narrow neck items and pump speed lowers for rinses.
- Spray arm monitoring detects blockages, excessive foaming and alerts operator. No time is lost due to improper loading and rewashing.
- Newly improved drying programs and an aerosol steam condenser enhance the drying process.

# New High Performance Variable-Speed Pump

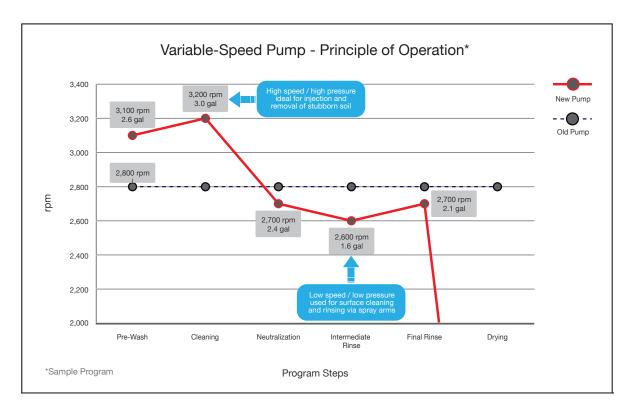
Improved Cleaning & Efficiency



#### The Power of Variability

The heart and soul of the new generation Flex Series Washers is the variable-speed pump with integrated heater elements. The pump speeds up and slows down according to programming, increasing speed to provide a more powerful pressure for injection cleaning and lowering speed for less intense functions such as rinsing. The result: Improved energy efficiency and better cleaning.

- The pump speeds to up 3,400 rpm/132 gallons per minute during Injection Plus to provide better cleaning of pipettes and narrow neck glassware.
- The pump speed lowers for rinsing and to provide uniform wetting of all surfaces.
- Direct heating of water within the pump saves time.
   No exposed heating elements reduces damage of plastics.
- Modulating spray pressure provides maximum water and energy efficiency.



### Redesigned Chamber, Spray Arm & Docking System

More Capacity & Greater Flexibility



#### Redesigned Chamber

- No exposed heating elements removes potential of soil buildup and eliminates the risk of damage to plastics.
- High grade polished stainless steel surfaces and seams are laser welded to ensure a crevice-free corrosion-resistant chamber.
- The improved cabinet space allows for 128 flasks or 98 pipettes and 32 flasks to be cleaned in one load in the new modular loading system—This represents an almost 50% increase from the G78 series washer.



#### Rear Basket Docking System

- The relocation of the docking system to the rear of the chamber guarantees a more streamlined water and air circuit and allows for improved load capacity.
- Shorter circulation paths help minimize pressure loss and reduction in water temperature.
- When not in use, automatically self-sealing valves ensure uniformly high spray pressure.



#### Improved Spray Arm Design

- Knife edge jet pattern spraying ensures effective removal of debris, uniform wetting and cleaning while eliminating water reflections in the spray curtain.
- New arrangement of nozzles on spray arms provides full spray jet coverage.
- Advanced sensors monitor spray arm blockages and pressure and alert the user of items blocking spray arms or excessive foaming, which can result in pressure loss.
- Spray pressure sensor also confirms that modular basket is properly connected.



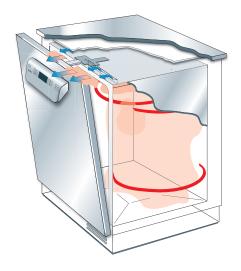
#### Streamlined Controller Design

- The new control panel combines the door handle and control panel with a single flush stainless steel surface with simple touch controls.
- Three line text display and intuitive interface
- Programs for all disciplines and two empty slots for user-specific programs
- Direct access buttons for routine tasks



#### Improved Ergonomics

- The patented salt container is located inside the door and is easily accessible (holds approximately 4 lbs of salt).
- AutoClose: gently press against the door to close it and it locks automatically. Minimum effort is required to reliably close and lock the door.



#### **New Improved Drying**

- EcoDry: The door on the PG 8583 automatically opens at the end of a program when the cabinet temperature has dropped below 158° F/70° C. This allows moisture-laden air to be released in order to dry and cool down glassware faster.
- DryPlus: HEPA-filtered forced-air drying is provided on the PG 8593 and PG 8583 CD - a perfect solution for intricate and narrow-lumened laboratory glassware and equipment.
- With DryPlus, an upstream Class H13 HEPA filter ensures the reliable removal of particles from the air taken in for drying.
- New aerosol steam condenser with larger cross section enables high fluid flow rates and improves drying performance.

#### Miele Manufacturers Responsibly

Miele consistently engineers products to be energy efficient and have the smallest possible environmental impact. This is achieved through the use of leading manufacturing techniques, sustainable machine construction from easily recyclable materials and the drive to produce the cleanest operating and most efficient machines on the market.

#### Minimal Water Consumption

The new Flex Series Washers reach a new high in environmental friendliness, utilizing just 2.4 gallons per fill, saving about 12.8 ounces of water per fill compared to the previous model. In addition, incoming water fills can be adjusted in volume as the glassware washers utilize flow meters.

The introduction of the new Mini program further helps reduce water usage by providing a solution for laboratories that have lightly soiled glassware (specifically K-12 STEM labs and community colleges). This program is only 23 minutes long and uses just 7.5 gallons of water, reducing water consumption by 45% compared to the Universal program.



# Improved Cleaning Programs

Introducing the New Injector Plus & Mini Program



A new chamber design, variable speed pump, high-performance spray technology and increased injector capacity allow Miele to provide improved programming, such as the new Injector Plus and Mini programs.

All models also feature two vacant program slots for freely programmable cycles to cater to individual needs. The result: superb reprocessing performance combined with high-level efficiency.

#### Injector Plus

A new high powered cleaning program has been created to improve washing of narrow neck glassware. With an optimized water circuit via the rear panel docking system and the modular accessories system, the Flex Series Washers allow four injector modules to be reprocessed per cycle. The variable-speed pump ensures sufficiently high water pressure by rotating at a speed of up to 3,400 rpm to ensure a vigorous cleaning.

#### Mini

The new Mini program offers the ability to reprocess lightly soiled loads to conserve energy and water, about 45% water savings compared to the popular Universal program. The Mini program uses just 7.5 gallons of water to deliver clean glassware in only 23 minutes.

Typical glassware for this program includes wide-neck beakers which are easily accessible to spray water.

#### Flex Series Programs:

- Universal
- Standard
- Intensive
- Inorganic materials
- Organic materials
- Injector Plus
- Pipettes
- Plastics
- Mini
- Oil program
- Special 93°C-10' (199°F)\*
- Demineralized water rinse
- Rinse
- Drain
- Two open program slots

<sup>\*10</sup> minute holding time

# Flex Series Model Overview

PG 8583, PG 8593 & PG 8583 CD



	PG 8583	PG 8593	PG 8583 CD	PG 8583 CD OIL	
Dimensions (with lid) H x W x D	32 7/8" x 23 5/8" x 23 5/8" 835 mm x 600 mm x 600 mm	32 7/8" x 23 5/8" x 23 5/8" 835 mm x 600 mm x 600 mm	32 <sup>7/8</sup> " x 35 <sup>7/16</sup> " x 27 <sup>9/16</sup> " 835 mm x 900 mm x 700 mm	32 <sup>7/8</sup> " x 35 <sup>7/16</sup> " x 27 <sup>9/16</sup> " 835 mm x 900 mm x 700 mm	
Dimensions (without lid) H x W x D	32 <sup>5</sup> / <sub>16</sub> " x 23 <sup>9</sup> / <sub>16</sub> " x 23 <sup>9</sup> / <sub>16</sub> " 820 mm x 598 mm x 598 mm	32 <sup>5/16"</sup> x 23 <sup>9/16"</sup> x 23 <sup>9/16"</sup> 820 mm x 598 mm x 598 mm	32 <sup>5/16</sup> " x 35 <sup>3/6</sup> " 27 <sup>1/2</sup> " 820 mm x 898 mm x 698 mm	32 <sup>5/16"</sup> x 35 <sup>3/6"</sup> 27 <sup>1/2"</sup> 820 mm x 898 mm x 698 mm	
Standard Electric*	3 AC 208V 60 Hz, 3-pole 20 A, 6.2 kW NEMA L15-20	3 AC 208V 60 Hz, 3-pole 20 A, 6.2 kW NEMA L15-20	3 AC 208V 60 Hz, 3-pole 20 A, 6.2 kW NEMA L15-20	3 AC 208V 60 Hz, 3-pole 20 A, 6.2 kW NEMA L15-20	
Water Connections	1 Hot   2 Cold   1 DI Water	1 Hot   2 Cold   1 DI Water	1 Hot   2 Cold   1 DI Water	1 Hot   2 Cold   1 Dl Water	
Powder Dispensing	✓				
Liquid Dispensing	1 internal pump, 2 connections for DOS modules	1 internal pump, 2 connections for DOS modules	2 internal pumps (3rd pump optional)	2 internal pumps (3rd pump optional)	
Drying	EcoDry**	DryPlus***	DryPlus***	DryPlus***	
Steam Condenser	✓	✓	✓	✓	
Spray Arm Monitoring	✓	✓	✓	✓	
Conductivity Meter			✓	✓	
Side Cabinet for Detergent Storage			✓	<b>✓</b>	
Oil resistant Seals & Gaskets				✓	

<sup>\*</sup>Convertible Electric: 2 AC 208V 60 Hz, 2-pole 30 A, 6.2 kW, NEMA L6-30 \*\*EcoDry: Automatic Door Opening to Assist Drying \*\*\*DryPlus: HEPA-Filtered Forced-Air Drying

### Customizable Carriers & Inserts

Improved Flexibility

The Flex Series Washers feature a new chamber design that allows for a modular basket and insert configuration system. With this new system, Miele offers more combinations with fewer baskets and accessories than previous models. With just 19 baskets, modules and inserts, users can generate hundreds of combinations and configurations to clean a wide variety of glassware for various applications.

In the end, the new system offers the end-user a much more economical and space saving solution for their laboratory.

To further facilitate the selection process of baskets, inserts and accessories, our experienced sales team suggests sample configurations and provides application assistance to create a combination that meets the specific requirements of your lab.





### Suggested Basket Configurations

Convertible Configurations Offer More Flexibility



#### Flex Package 1

Combination injection/open basket cleaning on two levels A 101 upper basket holding 2 AK12 inserts A 150 lower basket for modules 2 x A 300 modules for laboratory glassware 2 x 4 Convertible to single level injection for tall items by removing upper level.



#### Pipette Injection Package

Single level cleaning using injection to clean pipettes and narrow neck glassware.

A 150 lower basket for modules

A 303 module for pipettes

A 301 module for laboratory glassware 3 x 6

Convertible to dual level by adding A 100 or A 101 (upper level)



#### Flex Package 2

Dual level injection cleaning
A 100 upper basket for modules
2 x A 302 modules for laboratory glassware 4 x 8
A 150 lower basket for modules
2 x A 301 modules for laboratory glassware 3 x 6
Convertible to single level injection for tall items by removing upper level.



#### Graduate Cylinder Injection Package

Single level cleaning using injection to clean graduates and other narrow neck glassware. Converts to dual level

A 150 lower basket for modules

A 306 module for measuring cylinders

A 301 module for laboratory glassware 3 x 6

Convertible to dual level by adding A 100 or A 101 (upper level)

### Upper & Lower Baskets, Load Carriers



# A 100 upper basket for modules

- Upper basket with two docking pipes
- For the connection of up to 2 injector modules or inserts
- Automatically self-sealing docking valves
- 141 H x 528 W x 525 D mm
- Not for use with injector modules containing 220 mm injectors



#### A 101 upper basket

- Open front
- For various inserts
- Height-adjustable
- Vertical clearance 160 +/-30 mm
- Built-in spray arm
- 206 H x 528 W x 527 D mm



#### A 102 upper basket

- Open front
- For various inserts
- Height-adjustable
- Vertical clearance 205 +/-30 mm
- Built-in spray arm
- 206 H x 528 W x 527 D mm



#### A 103 upper basket

- 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
- 133 H x 528 W x 528 D mm



# 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
- 154 H x 529 W x 546 D mm
- Loading dimensions:
   235 H x 490 W x 435 D mm
- For use with all injector modules



#### A 151 lower basket

- For various inserts
- Clearance depends on type of upper basket used
- 88 H x 529 W x 522 D mm



#### A 202 load carrier

- For inserts on two levels
- Built-in spray arm
- Loading dimensions, lower level:
   95 H x 519 W x 485 D mm or
   135 H x 494 W x 500 D mm (with/without rack inserts)
- Loading dimensions, upper level:
  135 H x 516 W x 462 D mm
- 6 additional LuerLock
- 6 additional LuerLock connections
- 223 H x 529 W x 542 D mm



#### A 802 nozzle

- For use with lab washers with powder dispensing (door)
- For use with injector modules to rinse out powder residue from door dispenser
- 187 H x 30 W x 15 D mm

## Injector Modules for Laboratory Glassware

For Use With A 100 Upper Basket & A 150 Lower Basket



#### A 300 module (2 x 4)

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks and measuring cylinders
- 8 x E 352 injector nozzles (6 x 220 mm) ID x L
- 8 x E 354 spring clips for nozzles
- 241 H x 200 W x 479 D mm
- Use in A 150 only



#### A 300/1 module (2 x 4)

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks and measuring cylinders
- 8 x 220 mml injector nozzle with plastic support (6 x 220 mm) ID x L
- 242 H x 178 W x 479 D mm
- Use in A 150 only



#### A 301 module (3 x 6)

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks and measuring cylinders
- 6 x 110 mml injector nozzles with plastic supports (2.5 x 110 mm) ID x L
- 6 x E 351 injector nozzles (4 x 160 mm) ID x L
- 6 x E 353 nozzle supports
- 6 x E 352 injector nozzles (6 x 220 mm) ID x L
- 6 x nozzle supports for E 354
- 241 H x 232 W x 471 D mm
- Use in A 150 only



#### A 301/1 module (3 x 6)

- For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks and measuring cylinders
- 18 x E 351 injector nozzles (4 x 160 mm) ID x L
- 18 x nozzle supports for E 353
- 181 H x 216 W x 479 D mm
- Use in A 150, A 100, or both



#### A 301/2 module (3 x 6)

For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, BOD bottles and measuring cylinders

- 18 x 160 mml injector nozzle with plastic support 4 x 160 mm) ID x L
- 181 H x 220 W x 479 D mm
- Use in A 150, A 100, or both



#### A 301/3 module (3 x 6)

- For butyrometers
- 18 injector nozzles
- 132 H x 215 W x 479 D mm
- Use in A 150 only



#### A 302 module (4 x 8)

For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks

- 32 x 110 mml injector nozzles with plastic supports (2.5 x 110 mm) ID x L
- 181 H x 235 W x 479 D mm
- Use in A 150, A 100, or both



#### A 302/1 module (4 x 8)

For laboratory glassware, e.g. Erlenmeyer flasks, round flasks, laboratory bottles, volumetric flasks and measuring cylinders

- 32 x E 351 injector nozzles (4 x 160 mm) ID x L
- 32 x nozzle supports for F 353
- 181 H x 235 W x 479 D mm
- Use in A 150, A 100, or both

Note: The injector modules on this page are designed so that two injectors may be used per level.

## Injector Modules and Load Carriers for Pipettes & Vials



#### A 303 module for pipettes

- For e.g. 98 measuring and full pipettes
- Height of retaining frame 150 mm
- 185 H x 225 W x 471 D 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
- Use in A 150 only\*



#### A 304 module for vials

- For 98 tubes, e.g. centrifuge tubes, vials, test tubes or autosampler tubes
- 130 H x 222 W x 471 D mm
- Use in A 150 or A 100 (only one per level)
- Cannot be used with A 303



# A 306 module for measuring cylinders

- For laboratory glassware, in particular large measuring cylinders
- Capacity: four 1-2 I measuring cylinders
- Contact surfaces plastic coated
- 418 H x 235 W x 471 D mm
- Use in A 150 only



#### 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
- 397 H x 529 W x 546 D mm



\*Note: Only one injector module A 303, not two, can be used in the A 150, however the A 303 can be used with other injector modules except with A 304.

### Inserts for Test Tubes, Funnels, Beakers, Wide-Neck Glassware



#### E 142 mesh basket

- 1/2 mesh basket
- DIN mesh tray
- Mesh opening size: 5 mm
- 45 H x 225 W x 480 D mm



#### E 146 mesh basket

- 1/6 mesh tray insert for various items
- 2 hinged handles
- Mesh opening size, Base:
  3 mm
- Mesh opening size, Sides:
  1.7 mm
- Mesh opening size, Lid: 8 mm
- 55 H x 150 W x 225 D mm



# E 378 full insert mesh basket

- Full insert mesh basket with handles
- Mesh opening size: 1.7 mm
- 110 H x 460 W x 460 D mm



# E 379 half insert mesh basket

- Half insert mesh basket with handles
- Mesh opening size: 1.7 mm
- 110 H x 180 W x 445 D mm



#### E 363 mesh basket with lid

- 1/6 mesh tray insert for various items
- Mesh opening size: 1 mm
- 55 H x 150 W x 225 D mm



#### AK 12 half insert basket

- Half insert basket with handles, for beakers, bottles, and various other glassware.
   Also ideal for other labware
- 67 H x 225 W x 442 D mm (with handle: 127 H mm)



A 14-06 - 1/4 lid (for AK 12, 2 required)

 Shown above with AK 12 Insert Basket



#### E 103/1 quarter insert with lid

- For ~160 test tubes, 75 mm tall max.
- Divided into 6 sections
- 122 H x 200 W x 320 D mm

#### E 105/1 quarter insert with lid

- For lower level only
- For ~160 test tubes, 165 mm tall max.
- Divided into 6 sections
- 212 H x 200 W x 320 D mm

#### E 104/1 quarter insert with lid

- For ~160 test tubes, 105 mm tall max.
- Divided into 6 sections
- 52 H x 200 W x 320 D mm

#### E 139/1 quarter insert with lid

- For lower level only
- For ~160 test tubes, 200 mm max.
- Divided into 6 sections
- 243 H x 200 W x 320 D mm

# Inserts for Beakers, Wide-Neck Glassware, Measuring Cylinders



#### E 106 half insert

- 26 total spring clips to secure glassware 16 small spring clips, 105 mm Tall 10 large spring clips, 175 mm Tall
- Distance between clips ~60 mm
- 186 H x 195 W x 430 D mm

#### E 106/1 half insert

- 26 small spring clips to secure glassware, 105 mm Tall
- Distance between clips ~60 mm
- 116 H x 195 W x 410 D mm

#### E 106/2 half insert

- 13 large spring clips to secure glassware, 175 mm Tall
- Distance between clips ~85 mm
- 186 H x 180 W x 420 D mm



#### E 109 half insert

- For 21 beakers (up to 250 ml) or other glassware
- 3 rows of 140 mm tall paired holders
- 155 H x 230 W x 460 D mm

#### E 110 half insert

- For 10 beakers (250 to 600 ml) or other glassware
- 2 rows of 160 mm tall paired holders
- 175 H 230 W x 460 D mm

#### E 111 half insert

- For 8 beakers (600 to 1000 ml) or other glassware
- 4 rows of 190 mm holders (24 total)
- 205 H x 230 W x 460 D mm

#### E 144 half insert

- For 18 beakers (up to 250 ml)
- 3 rows of 120 mm tall paired holders
- 131 H x 200 W x 445 D mm

# Inserts for Petri Dishes, Watch Glasses, Slides



# E 118 full insert for petri dishes

- For use in upper basket
- 38 holders: 70 mm high
- Distance between holders ~26 mm
- 120 H x 460 W x 445 D mm



# E 136 full insert for petri dishes

- For use in lower basket
- 56 holders: 70 mm high
- Distance between holders ~26mm
- 145 H x 485 W x 445 D mm



# E 137 full insert for petri dishes

- Stacks on top of E 136 insert only
- 56 Holders: 70 mm high
- Distance between holders ~26 mm
- 95 H x 485 W x 445 D mm



E 134 Half Insert for Slides

- Divided into 210 compartments (26 mm x 11 mm)
- 73 H x 200 W x 445 D mm



E 403 Half Insert for Watch Glasses

- 36 supports
- 9 mm distance between supports
- 35 H x 200 W x 445 D mm

### Inserts & Accessories



#### A 11/1 full underlay

- 429 W x 429 D mm
- Article No. 69501102

### A 12/1 half underlay

• 429 W x 224 D mm



#### A 2 half cover net

- 456 W x 216 D mm
- Article No. 69500201

#### A 3 1/4 cover net

• 206 W x 206 D mm



#### E 130 lower insert

- For lower basket
- Holds 10 trays
- Distance between holders ~35 mm
- 80 H x 180 W x 445 D mm



# Replacement injectors: star-base

- Sold each
- 90 mm L / Ø 2.5 mm Art. # 69709001
- 110 mm L / Ø 2.5 mm Art. # 69711001
- 140 mm L / Ø 4.0 mm Art. # 69714001
- 160 mm L / Ø 4.0 mm Art. # 69716001
- 180 mm L / Ø 4.0 mm Art. # 69718001
- 200 mm L / Ø 6.0 mm Art. # 69720001
- 220 mm L / Ø 6.0 mm Art. # 69722001
- 240 mm L / Ø 6.0 mm



# Replacement injectors: mielava clip

- Sold each
- E 351:160 mm Injector (Ø 4.0 mm) for use with E 353 Article No. 69735101
- E 353: Mielava Clip for use with E 351 Injector
  Article No. 69735301
- E 352: 220 mm Injector (Ø 6.0 mm) for use with E 354

Article No. 69735201

• E 354: Mielava clip for use with E 352 injector

### Detergent Dispensers & Bases



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

- For use on PG 8583 and PG 8593
- Stainless-steel bolted to machine
- 300 H x 600 W x 600 D mm
- 1113/16 H x 235/8 W x 235/8 D in



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

- For use with PG 8583 CD
- Stainless-steel bolted to machine
- 300 H x 900 W x 600 D mm
- 11<sup>13</sup>/<sub>16</sub> H x 35<sup>7</sup>/<sub>16</sub> W x 23<sup>5</sup>/<sub>8</sub> D in



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

- For use with PG 8583 and PG 8593 in combination with PG 8595 or PG 8596
- Stainless-steel bolted to machine
- 300 H x 900 W x 700 D mm
- $\bullet$  11  $^{13}\!/_{16}$  H x 35  $^{7}\!/_{16}$  W x 27  $^{9}\!/_{16}$  D in



#### PG 8596 dispenser unit

Housing unit for process chemicals and dispenser modules

- H 835 (820), W 300, D 600 mm
- Compatible with PG 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 (with / without 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 H 225 x W 145 x D 245 mm. (Only possible with DOS K 85/1 dispenser with short siphon).

Lower drawer offers space for larger canisters.



#### DOS K 85/1 dispenser module

- For liquid alkaline detergents and neutralizing agent
- Peristaltic pump, adjustable via machine's electronic controls
- Integrated dispenser monitoring function ensuring high level of process security
- Short siphon (200 mm) for 5 l canister, incl. level fill monitoring
- Length of connection cable: 3.00 m / 9.8 ft
- Length of suction hose: 1.80 m / 5.9 ft



#### DOS K 85 dispenser module

• As DOS K 85/1 with long siphon (300 mm) for 5 I and 10 I canisters

# Cleaning Agents

Effective cleaning in critical applications requires the proper balance of many factors. Process chemicals must be selected with many things in mind including the soils to be removed, the material being cleaned, the cleaning method itself and the water quality. Our ProCare Lab and neodisher® cleaning agents ensure critical cleaning results when properly used.

#### Cleaning Agent Product Selection Guide

Product	Function	Active Ingredients											
		Bleach Silic	one	Active Oxygen	Caustic Alkali	Alkali Metal Salts	Complexing Agents	Phosphates	Surfactants/ Emulsifiers				
neodisher <sup>®</sup> A8	Detergent	✓			✓	✓	✓	✓					
neodisher <sup>®</sup> F	Detergent				✓	✓	✓						
neodisher <sup>®</sup> GK	Detergent	✓				✓	✓	<b>✓</b>	✓				
neodisher® LA	Detergent				✓	✓	<b>✓</b>	<b>~</b>	<b>~</b>				
ProCare Lab 11 MA	Detergent					✓	✓	✓	✓				
ProCare Lab 11 AP	Detergent			✓		✓	✓		✓				
ProCare Lab 10 MA	Detergent					✓	✓	✓					
neodisher <sup>®</sup> FT	Detergent	✓			✓		✓	✓					
ProCare Lab 10 AP	Detergent				✓		✓						
ProCare Lab 10 AT	Detergent				✓		✓		✓				
MediClean Forte	Detergent												
ProCare Lab 30 P	Neutralizer							✓					
ProCare Lab 30 C	Neutralizer												
neodisher <sup>®</sup> EM	Emulsifier								✓				
neodisher <sup>®</sup> S	Defoamer		/										
Industry	Powder	Liquid		Notes and Indications									
Cosmetic	ProCare Lab 11 MA	ProCare Lab 10 M/		For lightly soiled items with good emulsifying and dispersing action for removal of creams and lotions									
Waste Water	ProCare Lab 11 AP	ProCare Lab 10 AF	A phos	A phosphate-free detergent ideal for removal of trace metals from laboratory glassware									
Environmental	ProCare Lab 11 AP	ProCare Lab 10 AF	Effectiv	Effective in removing metal salt and metal ion trace residues found in environmental glassware									
Educational	ProCare Lab 11 AP	ProCare Lab 10 AF	Power	Powerful dirt suspending properties for generalized cleaning									
Biotech	neodisher® GK	neodisher® FT	No sur	No surfactants to leave inhibitory residues for cell, tissue and bacterial culture work									
Food	neodisher® LA	ProCare Lab 10 AT	Has po	Has powerful emulsifying and dispersing action for removal of fats, oils and waxes									
Chemical	neodisher® F	ProCare Lab 10 AF	,	Intensive cleaner with no phosphates to interfere with crucial analyses. For general chemical containment									
Metal	ProCare Lab 11 MA	ProCare Lab 10 MA	A Ideal fo	Ideal for cleaning stainless steel without any corrosive effects									
Inks/Pigments	neodisher® F	neodisher® FT	Effectiv	Effective in removal of printing inks and felt tip marker inks									
Paints	neodisher® F	neodisher® FT	Good	Good dispersing action, surfactant-free									
Medical Instruments		MediClean Forte		For removal of blood and protein residues. Will not damage instruments, is safe to handle and environmentally friendly									
Industrial		ProCare Lab 10 AT	For effe	For effective cleaning of heavy residue of oils, petroleums and hydrocarbons and other organic greases									

### System4Lab: A Guaranteed Solution

System4Lab is Miele Professional's complete solution for reprocessing glassware to guarantee analytically clean results year after year.

#### **Enhancing Sustainability**

Miele washers factory rated to last 15,000 operating hours which translates into 15 years if used five hours per day, five days per week. Many last far beyond that life expectancy. To enhance the longevity of the washer and encourage further sustainability, Miele, through its System4Lab program, is encouraging the use of proper detergents, its exclusive application laboratory, and a dedicated network of trained service and call center representatives.

#### Guaranteeing Products and Results

As part of its this unique program, Miele Professional will provide System4Lab customers a five year limited warranty on Miele glassware washers.\*



In addition, Miele offers a **90 day money back cleaning guarantee** on all laboratory glassware washers. Please contact us for more details.

\*The limited warranty includes Miele's standard one year manufacturer's warranty and an extended limited warranty for the remaining four years covering wash chamber construction, control electronics and pumps when Neodisher and/or Miele ProCare lab detergents are used during the warranty period.

### **Professional Service**



Miele Professional is synonymous with exceptional quality and service. Our glassware washers are engineered to provide years of use and when properly installed and maintained, most machines operate far beyond their expected life span.

Miele recommends laboratory glassware washers to be installed by its expert technical service team and suggests customers take a proactive approach to maintaining these critical systems to ensure maximum performance through preventative maintenance plans.

#### Service Offerings:

- Free Expert Call Center Assistance
- Preventative Maintenance Plans
- Full Service Installation
- Extended Warranties
- Spare Parts
   (Available 15 years after model discontinuation)
- IQ/OQ validation reprocessing packages

#### Process Documentation:

Through the use of the Miele Edition Segosoft® software, we help you connect and transfer data to an external printer, PC or a network connection using either a RS232 or Ethernet connection. The software also enables you to download and save data to an USB flash drive.

# Segosoft® Miele Edition



# Beyond the Flex Series

Fully Programmable Glassware Washers



#### The PG 8535

When laboratories have special cleaning requirements or desire more programmability in an undercounter washer, Miele offers the PG 8535. Offering 64 program slots including 17 standard cleaning and disinfection programs, as well as 30 vacant slots, this washer can easily accommodate the reprocessing of lightly soiled to heavily contaminated glassware. It also is used to perform laboratory pasteurization.

The PG 8535 offers HEPA-filtered forced-air drying, spray arm monitoring, network interface capability and a side cabinet holding both liquid detergent and neutralizer dispenser pumps. The PG 8535 is often used in pharmaceutical drug discovery, forensic, biotech, public health and food tasting (pasteurization) labs.

#### The PG 8536

Miele recommends the freestanding PG 8536 washer for difficult to clean glassware, parts or medical devices. The PG 8536 can get even the most difficult items with small crevices or pieces thoroughly cleaned with two powerful circulation pumps operating at 158 gallons per minute.

The PG 8536 offers HEPA-filtered forced-air drying, spray arm monitoring, network interface capability and side cabinet to house liquid detergent and neutralizer dispenser pumps. This washer also offers a conductivity meter.



### Beyond the Flex Series

Large Chamber Laboratory Glassware Washers



#### The G 7825

When an undercounter glassware washer is just not enough, Miele's G 7825 offers the perfect solution for high-throughput glassware cleaning in areas where space is at a premium. This unit is ideal for cleaning both large volumes of small items and difficult to clean large items. The flexible basket system allows up to three levels of injection cleaning and five levels of standard non-injection cleaning. A drop down door provides easy loading and unloading of glassware.

The G 7825 offers 11 standard wash programs and 45 custom program slots, an onboard cleaning agent dispensing system, optional HEPA-filtered forced-air drying and steam condenser.

Miele offers a G 7826 pass-thru model as well as a G 7825 Standard model geared for the needs of educational institutions.

#### The PG 8527

Miele's largest and most sophisticated glassware washer, the PG 8527, is designed for high-throughput cleaning of both large volumes of small items and difficult to clean large items. This washer also offers split level cleaning for both tall and short loads so pipettes or other tall items can be cleaned on one side and shorter items can be cleaned on the other side on two levels.

The PG 8527 offers 12 standard wash programs and 35 additional custom programs slots. This glassware washer also comes with standard spray arm and detergent dispensing monitoring and provides options such as a full view glass door, chamber lighting, HEPA-filtered forced-air drying and a conductivity meter.

Miele also offers the PG 8528 pass-thru washer.





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