

**Miele**

Setting new standards  
PLW 86 series Laboratory Glassware Washers

Miele Professional. Immer Besser.



NEW:  
PLW 86 large chamber lab washer









## A new approach to clean laboratory glassware

Miele continues to set new standards of performance with the new PLW 86 model series. This entirely redesigned and user friendly washing system offers considerably better performance compared with previous models. The innovative variable speed pump enables circulation pressure and water consumption to adjust to any wash load. All models feature spray arm monitoring and a conductivity sensor. This ensures the security and quality of the cleaning process.

The new SimpleLoad system of accessories ensures correct, efficient loading of glassware for optimum results every time.

Along with these and other new features, Miele's new lab washers offer unsurpassed benefits of performance, ease of operation and long term service to your laboratory.

# Safety and Performance

Working in perfect harmony



Two machine widths for optimum installation and performance

- 900 mm (35<sup>7</sup>/<sub>16</sub>" ) and 1150 mm (45<sup>1</sup>/<sub>4</sub>" ) wide units using the same load carriers
- Same performance and benefits. Specific, optimised load carriers and modules for a wide range of laboratory glassware in combination with the unique SimpleLoad system
- Space-optimised load carrier concept. Perfect results in daily use relying on considerably fewer load carriers and modules
- The 900 mm (35<sup>7</sup>/<sub>16</sub>" ) wide model is also available as a pass through, double door unit



#### Unique pump combination with variable-speed pump

- 2-pump system for maximum performance
- Variable-speed pump for optimum adjustment of spray pressure to load size and process requirements
- Second pump exclusively for machine spray arms

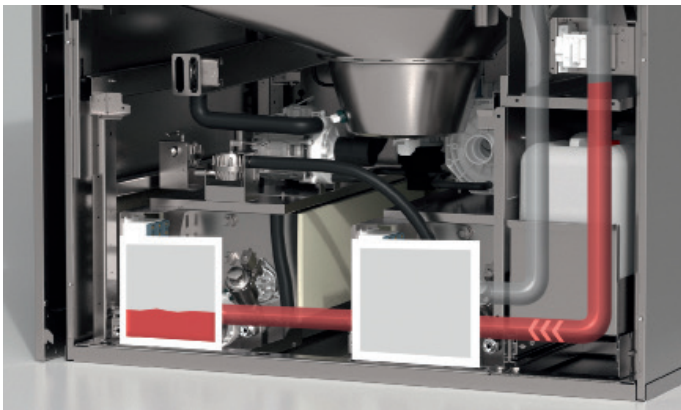
**Exclusive  
to Miele**



#### Flexible loading

- High capacity through completely revised load carrier system, saves time, storage space and costs
- New, modular basket concept adapts flexibly to a variety of load situations with an intuitive user interface and modules which can be combined in a wide number of configurations
- Depending on the model, the continued use of existing load carriers from the PG 8527 series is possible

**Exclusive  
to Miele**



#### Machine options for efficiency and the eco-friendly use of resources

- Pre-heating tank for shorter process cycles
- Recycling tank to conserve water and energy
- Water volume adjusted to load size

**Exclusive  
to Miele**



#### High-performance drying

- Two drying units for optimum drying results
- HEPA H14 filter for the ultimate in safety
- The HEPA filter is located directly at the entrance to the chamber so as to reliably remove particles from the air that's used for drying the glassware

**Exclusive  
to Miele**

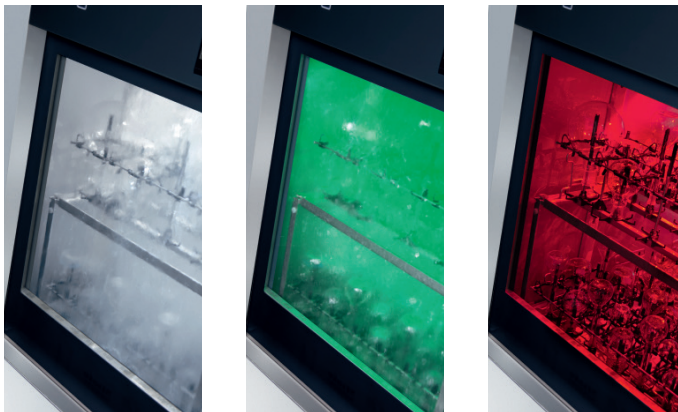


# Efficiency and sustainability



## Intuitive operation and programmable controls

- 7" color touch display for intuitive user interface and simple process control
- Flush display in machine front for simple and safe cleaning
- Pre-installed programs, programmable to suit individual needs
- 200 program memory slots



## Multi-color chamber lighting with status indicator

- Multi-color LED chamber lighting (white, green, red)
- Visual control of cleaning
- Simple visualization of machine status indicated by chamber color and visible from a distance



## Hygienic chamber design

- Optimized chamber design with pitched surfaces and cove corners
- Heater elements located outside chamber
- Chamber produced on high-precision robotic laser welding system
- Steel quality 1.4404 / 316 L



#### **Intelligent filter design with self-cleaning effect**

- 2-component filter consisting of coarse and fine filters
- Fine filter with 0.2 mm mesh for the reliable removal of even the smallest particles
- Reduced effort involved in cleaning filters due to self-cleaning effect during drainage



#### **Conductivity sensor and spray arm monitoring**

- Process control and residue-free final rinse due to integrated conductivity sensor
- Monitoring of spray arm speed for reproducible cleaning results
- Spray arms with optimised nozzle design



#### **Perfect cleaning results due to interaction between machine and ProCare Lab process chemicals**

- Storage space for ProCare Lab process chemicals underneath machine
- Space for up to 4 x 10 l canisters
- Simple handling due to dispensing system drawer
- 2 dispenser pumps, expandable to max. 6 dispenser pumps
- Dispensing monitoring with high-precision flow meter

# New large chamber lab washer

## PLW 8615, PLW 8616 und PLW 8617



Lab washers	PLW 8615	PLW 8616	PLW 8617
External dimensions <sup>1</sup> [Width x Height x Depth mm]	900 x 2495 x 990 mm	900 x 2495 x 990 mm	1150 x 2495 x 990 mm
	35 <sup>1</sup> / <sub>8</sub> " x 98 <sup>1</sup> / <sub>4</sub> " x 39"	35 <sup>1</sup> / <sub>8</sub> " x 98 <sup>1</sup> / <sub>4</sub> " x 39"	45 <sup>1</sup> / <sub>8</sub> " x 98 <sup>1</sup> / <sub>4</sub> " x 39"
Overall chamber dimensions <sup>2</sup> [Width x Height x Depth mm]	650 x 933 x 800 mm	650 x 933 x 800 mm	650 x 933 x 800 mm
	25 <sup>9</sup> / <sub>16</sub> " x 36 <sup>3</sup> / <sub>4</sub> " x 31 <sup>1</sup> / <sub>2</sub> "	25 <sup>9</sup> / <sub>16</sub> " x 36 <sup>3</sup> / <sub>4</sub> " x 31 <sup>1</sup> / <sub>2</sub> "	25 <sup>9</sup> / <sub>16</sub> " x 36 <sup>3</sup> / <sub>4</sub> " x 31 <sup>1</sup> / <sub>2</sub> "
Chamber opening dimensions [Width x Height x Depth mm]	650 x 675 x 800 mm	650 x 675 x 800 mm	650 x 675 x 800 mm
	25 <sup>9</sup> / <sub>16</sub> " x 26 <sup>9</sup> / <sub>16</sub> " x 31 <sup>1</sup> / <sub>2</sub> "	25 <sup>9</sup> / <sub>16</sub> " x 26 <sup>9</sup> / <sub>16</sub> " x 31 <sup>1</sup> / <sub>2</sub> "	25 <sup>9</sup> / <sub>16</sub> " x 26 <sup>9</sup> / <sub>16</sub> " x 31 <sup>1</sup> / <sub>2</sub> "
Vertical clearance	675 mm (26 <sup>1</sup> / <sub>2</sub> "	675 mm (26 <sup>1</sup> / <sub>2</sub> "	675 mm (26 <sup>1</sup> / <sub>2</sub> "
Usable volume [l]	351	351	351
Programs	Max. 200	Max. 200	Max 200
Program selection	7" color touch display	7" color touch display	7" color touch display
Drain valve	•	•	•
3-color chamber lighting as status indicator	•	•	•
2-pump technology with variable-speed pump	•	•	•
2-component filter with fine filter (0.2 mm mesh)	•	•	•
Voltage	3 AC 208 V 60 Hz	3 AC 208 V 60 Hz	3 AC 208 V 60 Hz
Single-door model	•	–	•
Barrier (2-door) model	–	•	–
Full-glass door, Automatic door	•	•	•
Chamber material	1.4404 / 316 L	1.4404 / 316 L	1.4404 / 316 L
Dispenser pumps [No.]	2	2	2
Dispenser pumps, retrofittable [No.]	4	4	4
Capacity cleaning agents	4 x 5 l or 2 x 5 l + 1 x 10 l	4 x 5 l or 2 x 5 l + 1 x 10 l	4 x 10 l
Conductivity meter	•	•	•
Spray arm monitoring	•	•	•
Features (model-dependent)			
Electric heating	•	•	•
Heating: Electric/Steam	•	•	•
Pre-heating tank	–	–	•
Recycling tank	–	–	•
Combi tank (Pre-heating / Recycling)	•	•	–
Optional modules			
Drain pump	•	•	•
Hot-air drying, electric incl. HEPA H14 filter	•	•	•
Steam condenser <sup>3</sup>	•	•	•
Printer	•	•	•
Plinth / Floor tray	–	•	–
Plinth floor tray, plinth / floor tray, roller tray	•	–	•
Load capacity			
Bottles, 1000 ml, Ø 100 mm	60	60	60
Bottles, 250 ml, Ø 70 mm	120	120	120
Bottles, 100 ml, Ø 56 mm	216	216	216
Pipettes	294	294	294
Vials	588	588	588



# Model versions and modules

## Basic version

Type	Doors		Heating system		Tank features			Item no.
	1 door	2 doors	Electric	Electric/Steam	Pre-heating tank	Recycling tank	Combi tank	
PLW8615	•	--	•	--	--	--	--	62861501US
PLW8615 CT	•	--	•	--	--	--	•	62861502US
PLW8615 EL/S	•	--	--	•	--	--	--	62861503US
PLW8615 EL/S CT	•	--	--	•	--	--	•	62861504US
PLW8616	--	•	•	--	--	--	--	62861601US
PLW8616 CT	--	•	•	--	--	--	•	62861602US
PLW8616 EL/S	--	•	--	•	--	--	--	62861603US
PLW8616 EL/S CT	--	•	--	•	--	--	•	62861604US
PLW8617	•	--	•	--	--	--	--	62861701US
PLW8617 TH	•	--	•	--	•	--	--	62861702US
PLW8617 RT	•	--	•	--	--	•	--	62861703US
PLW8617 TH RT	•	--	•	--	•	•	--	62861704US
PLW8617 EL/S	•	--	--	•	--	--	--	62861705US
PLW8617 EL/S TH	•	--	--	•	•	--	--	62861706US
PLW8617 EL/S RT	•	--	--	•	--	•	--	62861707US
PLW8617 EL/S TH RT	•	--	--	•	•	•	--	62861708US

## Machine modules

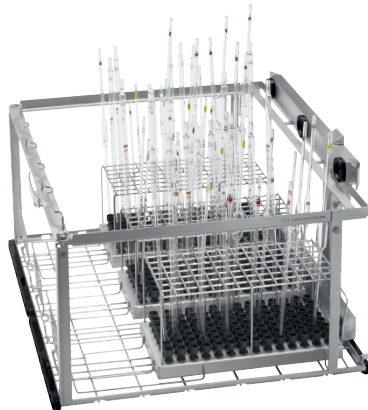
Type	Description	Item no.
DU900US	Electric drying unit for 900 mm (35 <sup>7</sup> / <sub>16</sub> " units. Top Cover is closed.	11382230
DU1150US	Electric drying unit for 1150 mm (45 <sup>1</sup> / <sub>4</sub> " units. Top Cover is closed.	11382260
DU900RVUS	Electric drying unit for 900 mm (35 <sup>7</sup> / <sub>16</sub> " units. Air supply via room. Top Cover with vent grille.	11382320
DU1150RVUS	Electric drying unit for 1150 mm (45 <sup>1</sup> / <sub>4</sub> " units. Air supply via room. Top Cover with vent grille.	11382350
TC900 <sup>1</sup>	Top-box paneling for 900 mm (35 <sup>7</sup> / <sub>16</sub> " units	69252003D
TC1150 <sup>1</sup>	Top-box paneling for 1150 mm (45 <sup>1</sup> / <sub>4</sub> " units	69252004D
SC	Steam condenser	69251300D
DP	Drain pump	11516100
PR	Printer	10931290
DS5	Dispensing system (additional), 5 l canister	10880860
DS10	Dispensing system (additional), 10 l canister	10880870
FP900	Base, fixed, for 900 mm (35 <sup>7</sup> / <sub>16</sub> " units	69253005D
RP900	Roller base, for 900 mm (35 <sup>7</sup> / <sub>16</sub> " units	69253007D
RP1150	Roller base, for 1150 mm (45 <sup>1</sup> / <sub>4</sub> " units	69253008D

<sup>1</sup> Is needed on machines WITHOUT drying and WITHOUT steam condenser

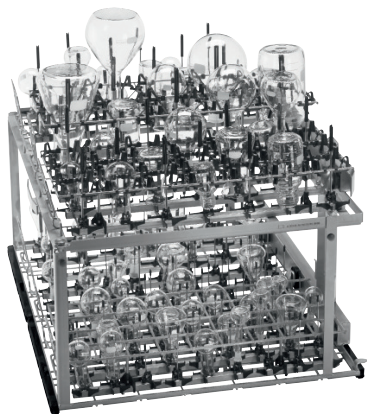
# Modular and flexible accessories for PLW 86 lab washers

Flexibility and perfected compatibility - Miele's load carrier range offers both configurable and dedicated load carriers offering innovative solutions for a wide range of laboratory glassware. With only a limited number of load carriers, modules and injector nozzles, the optimum combination for the application in hand can easily be found. This system offers greatest possible flexibility combined with reduced space requirements.

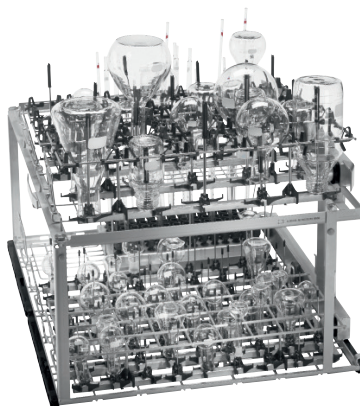
- 5 basic load carriers
- 9 rack levels and modules
- Combined with various nozzles and further accessories for tailor-made flexibility in the cleaning of laboratory glassware



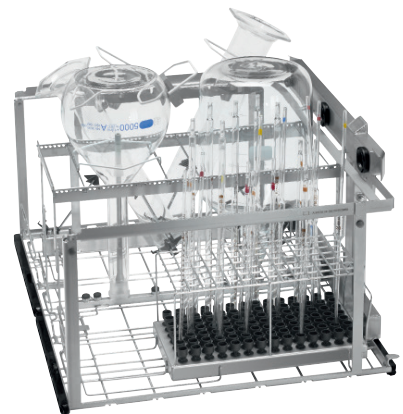
A 503 with 3 x A 613  
• 294 positions for pipettes



A 503 with 3 x A 621, 1 x A 620, 2 x A 622  
• 150 positions with injector nozzles



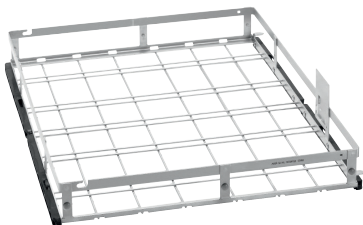
A 503 with 1 x A 613, 2 x A 621, 1 x A 620, 1 x A 622  
• 98 positions for pipettes  
• 90 positions with injector nozzles



A 503 with 1 x A 612, 1 x A 623, 1 x A 613  
• 98 positions for pipettes  
• 4 measuring cylinders, max. 2 l  
• Module for large laboratory bottles  
e.g. two 10 l bottles

# Load carriers and racks

For PLW 8615, PLW 8616 and PLW 8617



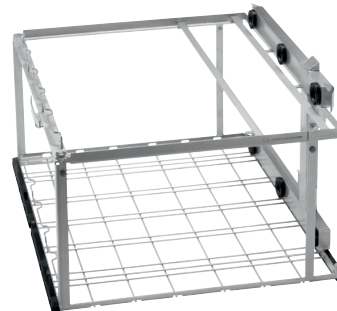
## A 500 load carrier

- For inserts (and possibly mesh trays) and for cleaning laboratory glassware and utensils
- Single-rack load carrier, extendable to 2 rack levels
- Extendable using A 603 rack (not included)
- Load clearances of Level 1 w/o A 603: H 670, W 600, D 775 mm
- Load clearances with A 603: Level 1: H 305, W 600, D 775 mm  
Level 2: H 302, W 595, D 770 mm
- H 153, W 650, D 790 mm



## A 501 load carrier

- For inserts (and possibly mesh trays) and for cleaning laboratory glassware and utensils
- Load carrier with 4 levels, extendable to 5 or 6 levels
- Extendable with A 601 rack (not included) as additional rack level
- Clearances without A 601: Level 1: H 168, W 577, D 750 mm  
Level 2: H 169, W 585, D 750 mm  
Level 3: H 77, W 585, D 780  
Level 4: H 80, W 577, D 750 mm
- H 659, W 640, D 790 mm



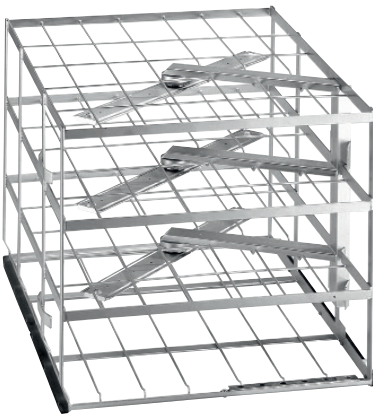
## A 503 load carrier

- For up to 6 injector modules on 2 levels together with inserts (and possibly mesh trays) for cleaning laboratory glassware and utensils
- Clearances: H 670, W 565, D 770 mm
- H 433, W 650, D 790 mm



## A 505 load carrier

- For inserts (and possibly mesh trays) and for cleaning laboratory glassware and utensils
- Load carrier with 3 levels
- Loading dimensions: Level 1: H 202, W 585, D 780 mm  
Level 2: H 202, W 590, D 780 mm  
Level 3: H 132, W 590, D 780 mm
- H 524, W 640, D 790 mm



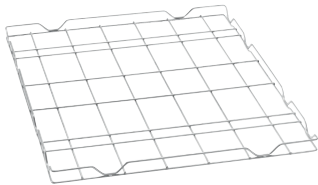
## A 506 load carrier

- For inserts (and possibly mesh trays) and for cleaning laboratory glassware and utensils
- Load carrier with 4 rack levels
- Clearances: Level 1: H 112.5, W 585, D 780 mm  
Levels 2 and 3: H 112.5, W 595, D 780 mm  
Level 4: H 114, W 595, D 780 mm
- H 557, W 640, D 790 mm



# Load carriers and racks

For PLW 8615, PLW 8616 and PLW 8617



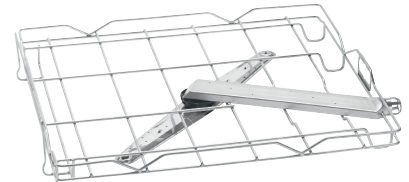
A 601 rack

- For use in A 501, without spray arm
- H 33, W 589, D 773 mm



A 603 rack

- For use on A 500, with spray arm
- H 372, W 611, D 784 mm



A 606 module

- Facilitates the use of, e.g., laboratory glassware inserts
- For use on upper rack level of A 503 load carrier
- H 97, W 603, D 505 mm



TT 86 transfer cart

- Equipped with 4 castors
- Simple and convenient handling due to ergonomic handle
- With removable drip tray







# SimpleLoad – Fast loading and highly efficient use of chamber space. The new loading system for cleaning laboratory glassware.

- New injector system for all common injector modules and a large number of further load carriers
- Optimum use of available vertical clearance
- Particularly fast and simple arrangement of load
- Thorough internal cleaning of glassware of all shapes and sizes
- Secure hold and exceptional material protection during wash cycle

Image shown: Load rack with support frame



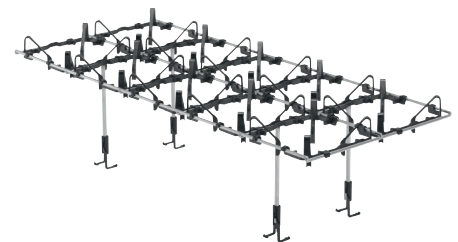
SimpleLoad means efficiency  
and a systematic approach to convenience:

- New injector nozzles  
(3 diameters, 6 lengths)
- New plastic holders  
and supports
- New injector modules  
(10-40 injector nozzles)
- New holder frames  
(for 10 to 40 injector positions)

The use of the new injector nozzles and supports  
without the use of a frame is possible in virtually  
all Miele laboratory load carriers.



Even if a nozzle tip rests against the base of a  
glass, the new injector nozzles still guarantee  
thorough cleaning. The new support  
surrounds the injector nozzles in the module  
or basket, preventing lateral movement  
without wasting valuable height.



The new support frame provides additional  
hold when required, it is placed on top of the  
injector module, providing a secure hold to  
even large items of laboratory glassware in a  
vertical and protected position.



# SimpleLoad: Modules, holder frames

For use in A 503 load carrier



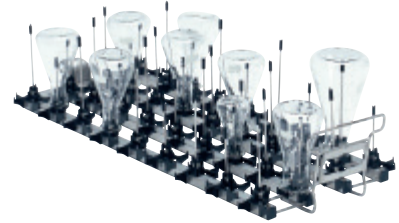
A 620 module

- For cleaning narrow-necked laboratory glassware (e.g. bottles, round and Erlenmeyer flasks), 200 ml to 1000 ml
- For use in A 503 load carrier
- With 10 injector positions (nozzles not included)
- H 113, W 142, D 614 mm



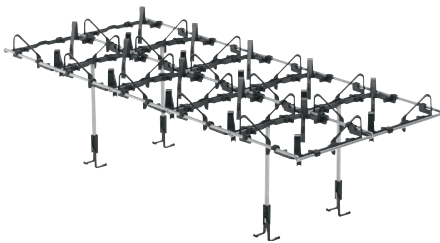
A 621 module

- For cleaning narrow-necked laboratory glassware (e.g. bottles, round and Erlenmeyer flasks), 50 ml to 250 ml
- For use in A 503 load carrier
- With 20 injector positions (nozzles not included)
- H 113, W 184, D 614 mm



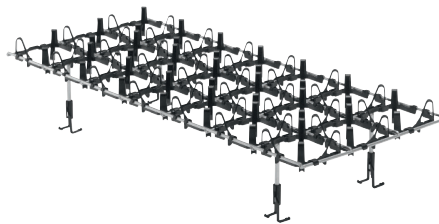
A 622 module

- For cleaning narrow-necked laboratory glassware (e.g. bottles, round and Erlenmeyer flasks), 25 ml to 100 ml
- For use in A 503 load carrier
- With 36 injector positions (nozzles not included)
- H 113, W 208, D 614 mm



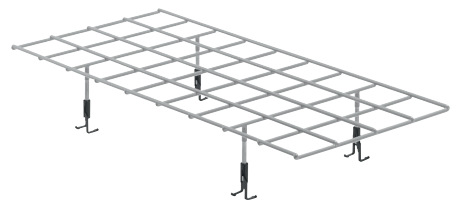
A 850 holder frame 2 x 5

- For improved support and protection and centering of load items
- For use with A 620 module
- H 147, W 245, D 579 mm



A 851 holder frame 3 x 7

- For improved support and protection and centering of load items
- For use with A 621 module
- H 120, W 244, D 580 mm



A 852 holder frame 4 x 9

- For improved support and protection and centering of load items
- For use with A 622 module
- H 96, W 256, D 562 mm

# SimpleLoad: Injector nozzles



## A 840 injector nozzle

- A 840: Ø 6 x 130 mm (1 piece)
- A 840/1: Ø 6 x 130 mm (5 pieces)
- A 840/2: Ø 6 x 130 mm (10 pieces)
- A 840/3: Ø 6 x 130 mm (20 pieces)



## A 841 injector nozzle

- A 841: Ø 6 x 210 mm (1 piece)
- A 841/1: Ø 6 x 210 mm (5 pieces)
- A 841/2: Ø 6 x 210 mm (10 pieces)
- A 841/3: Ø 6 x 210 mm (20 pieces)



## A 842 injector nozzle

- A 842: Ø 4 x 90 mm (1 piece)
- A 842/1: Ø 4 x 90 mm (5 pieces)
- A 842/2: Ø 4 x 90 mm (10 pieces)
- A 842/3: Ø 4 x 90 mm (20 pieces)



## A 843 injector nozzle

- A 843: Ø 4 x 185 mm (1 piece)
- A 843/1: Ø 4 x 185 mm (5 pieces)
- A 843/2: Ø 4 x 185 mm (10 pieces)
- A 843/3: Ø 4 x 185 mm (20 pieces)



## A 844 injector nozzle

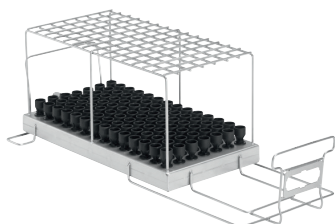
- A 844: Ø 2.5 x 80 mm (1 piece)
- A 844/1: Ø 2.5 x 80 mm (5 pieces)
- A 844/2: Ø 2.5 x 80 mm (10 pieces)
- A 844/3: Ø 2.5 x 80 mm (20 pieces)



## A 845 injector nozzle

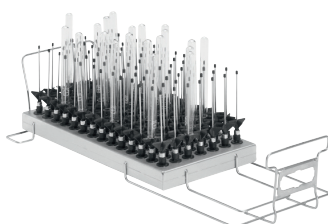
- A 845: Ø 2.5 x 125 mm (1 piece)
- A 845/1: Ø 2.5 x 125 mm (5 pieces)
- A 845/2: Ø 2.5 x 125 mm (10 pieces)
- A 845/3: Ø 2.5 x 125 mm (20 pieces)

# Injector modules for pipettes, vials and measuring cylinders



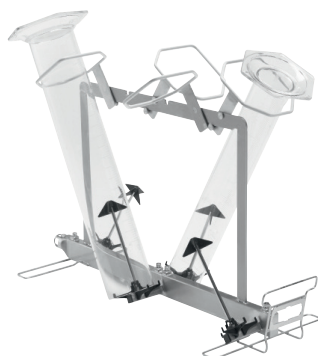
## A 613 module

- To clean up to 96 full pipettes (1 ml to 100 ml) and measuring pipettes (1 ml to 50 ml)
- For use in A 503 load carrier, capacity dependent on diameter of pipettes
- H 195, W 255, D 614 mm



## A 605 module

- To clean max. 96 centrifuge tubes, vials, test tubes for fraction collectors and auto sampler tubes.
- For use in A 503 load carrier
- Max. item diameter: 20 mm, Max. item height: 160 mm
- H 160, W 255, D 611 mm



## A 623 module

- To clean 1-2 l measuring cylinders, tall
- Suitable for two 1-2 l measuring cylinders, short and 2 tall
- Simplified loading due to swivel racks
- Plastic-coated contact surfaces



# Injector module for bulky laboratory glassware

For use in A 503 load carrier



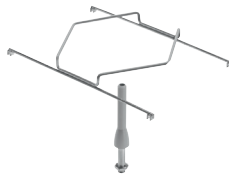
## A 612 module

- To clean bulky laboratory glassware items
- For use in A 503 load carrier
- Adapts to various types of laboratory glassware using A 846, A 847 and A 848 injector nozzles:
  - Laboratory bottles, 2 l - 10 l
  - Round flasks, 2 l - 6 l
  - Erlenmeyer flasks, 2 l - 5 l
  - Measuring cylinders, 2 l - 5 l
- Depending on the diameter, 2, 3 or 4 load items can be accommodated.
- Illustration shows sample load arrangement using A 846 and A 848 injector nozzles (not included)
- H 361, W 255, D 614 mm



## A 846 injector nozzle

- For laboratory bottles, max. 10 l, and round flasks, max. 6 l
- Nozzle length: 127 mm, total length with support: 158 mm, Ø 10 mm



## A 847 injector nozzle

- For Erlenmeyer flasks, max. 5 l
- Nozzle length: 127 mm, Ø 10 mm, diameter of hexagonal support: 142 mm



## A 848 injector nozzle

- For measuring flasks, max. 5 l
- Nozzle length: 350 mm, Ø 10 mm, diameter of hexagonal support: 142 mm

# Compatibility within product range

## Additional rack levels in load carriers

Load carrier	Rack levels	
	A 601	A 603
A 500	-	1
A 501	2	-

## Combination options: modules, injector nozzles and holder frames

Load carrier	Modules	SimpleLoad holder frames			SimpleLoad injector nozzles						Further injector nozzles		
		A 850	A 851	A 852	A 840	A 841	A 842	A 843	A 844	A 845	A 846	A 847	A 848
A 503	A 605 (max. 6)	-	-	-	-	-	-	-	-	-	-	-	-
	A 606 (max. 1)	-	-	-	-	-	-	-	-	-	-	-	-
	A 612 (max. 6)	-	-	-	-	-	-	-	-	-	4	3	3
	A 613 (max. 3)	-	-	-	-	-	-	-	-	-	-	-	-
	A 620 (max. 6)	1	-	-	10	10	!	!	!	!	-	-	-
	A 621 (max. 6)	-	1	-	!	!	20	20	!	!	-	-	-
	A 622 (max. 6)	-	-	1	!	!	!	!	40	40	-	-	-
	A 623 (max. 3)	-	-	-	-	-	-	-	-	-	-	-	-

! = Use possible, depending on application

**Miele Professional**  
9 Independence Way  
Princeton, NJ 08540

Toll Free: 800-991-9380  
Fax: 609-419-4241

proinfo@mieleusa.com  
www.mieleusa.com/professional



since 1899

#### **Immer Besser**

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 confirm the distinguished position Miele enjoys with respect to design, quality management and the sparing use of resources.

#### **Proficient**

Miele Professional has been developing and manufacturing a broad range of high quality laundry machines, dishwashers, washer-disinfectors and sterilizers 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.