

**Miele**

Setting new standards  
Lab washers from the PLW 86 series

**Miele Professional. Immer Besser.**



**NEW:**  
PLW 86 large-chamber lab washer





## A new holistic approach to laboratory glassware reprocessing

The new PLW 86 model series sets new standards in terms of performance and user-friendliness. This entirely redesigned washing system boasts considerably better performance compared with the previous model series and, thanks to a variable-speed pump, is able to adjust circulation pressure and water consumption to the load in hand.

All models feature spray arm monitoring and a conductivity sensor. This ensures the security and quality of the cleaning process.

The high-quality colour touch display in combination with the innovative multi-colour chamber lighting makes for an intuitive user interface and excellent control over the entire process.

The new EasyLoad system simplifies loading and supports users in correctly positioning their items of laboratory glassware.

In combination with other benefits, the new lab washers from Miele stand for clear gains in terms of performance, user-friendliness and safety.



**EASYLOAD**

# Safety & Performance

Working in perfect harmony



## Two machine widths for optimum installation and performance

- 900 mm and 1150 mm 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 EasyLoad system
- Space-optimised load carrier concept. Perfect results in daily use relying on considerably fewer load carriers and modules
- For installation in a diaphragm wall, the 900 mm wide unit is also available as a barrier (2-door) machine



#### 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

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#### Flexible loading

- High capacity through completely revised load carrier programme, 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

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#### Machine options for efficiency and the sparing use of resources

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

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#### 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 released by the fan and the heater elements

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# Efficiency and sustainability



## Intuitive operation and programmable controls

- 7" colour touch display for intuitive user interface and simple process control
- Flush display in machine front for simple and safe cleaning
- Pre-installed programmes, modifiable to suit individual needs
- 200 programme memory slots



## Multi-colour chamber lighting with status indicator

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



## Hygienic chamber design

- Optimised 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 thanks to self-cleaning effect during drainage



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

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



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

- Storage space for ProCare Lab process chemicals underneath machine (also on 900 mm wide units)
- Space for up to 4 x 10 l canisters
- Simple handling thanks to dispensing system drawer
- 2 dispenser pumps, extendible to max. 6 dispenser pumps
- Dispensing monitoring with high-precision oval wheel counters

# New large-chamber lab washer

PLW 8615, PLW 8616 und PLW 8617



Lab washers	PLW 8615	PLW 8616	PLW 8617
<b>Load capacity</b>			
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
Phials	588	588	588
<b>Features (basic version)</b>			
External dimensions [Width x Height <sup>1</sup> x Depth mm]	900 x 2495 x 990	900 x 2495 x 990	1150 x 2495 x 990
Chamber dimensions [Width x Height x Depth mm]	650 x 675 x 800	650 x 675 x 800	650 x 675 x 800
Usable volume [l]	351	351	351
Programmes	Max. 200	Max. 200	Max 200
Programme selection	7" colour touch display	7" colour touch display	7" colour touch display
Drain valve	•	•	•
3-colour chamber lighting as status indicator	•	•	•
2-pump technology with variable-speed pump	•	•	•
2-component filter with fine filter (0.2 mm mesh)	•	•	•
Voltage	3N AC 400V 50 Hz	3N AC 400V 50 Hz	3N AC 400V 50 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: Process chemicals	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	•	•	•
<b>Features (model-dependent)</b>			
Electric heating	•	•	•
Heating: Electric/Steam	•	•	•
Pre-heating tank	–	–	•
Recycling tank	–	–	•
Combi tank (Pre-heating / Recycling)	•	•	–
<b>Optional modules</b>			
Drain pump	•	•	•
Hot-air drying, electric incl. HEPA H14 filter	•	•	•
Steam condenser <sup>2</sup>	•	•	•
Printer	•	•	•
Plinth / Floor tray	–	•	–
Plinth floor tray, plinth / floor tray, roller tray	•	–	•

<sup>1</sup> incl. plinth floor tray, 100 mm, <sup>2</sup> only in combination with hot-air drying

# Model versions and modules

## Basic version

Type	Doors		Heating system		Tank features			Mat. no.	Art. no.
	1 door	2 doors	Electric	Electric/Steam	Pre-heating tank	Recycling tank	Combi tank		
PLW8615	•	--	•	--	--	--	--	11046380	62861501
PLW8615 CT	•	--	•	--	--	--	•	11046400	62861502
PLW8615 EL/S	•	--	--	•	--	--	--	11046410	62861503
PLW8615 EL/S CT	•	--	--	•	--	--	•	11046420	62861504
PLW8616	--	•	•	--	--	--	--	11046430	62861601
PLW8616 CT	--	•	•	--	--	--	•	11046440	62861602
PLW8616 EL/S	--	•	--	•	--	--	--	11046490	62861603
PLW8616 EL/S CT	--	•	--	•	--	--	•	11046510	62861604
PLW8617	•	--	•	--	--	--	--	11046520	62861701
PLW8617 TH	•	--	•	--	•	--	--	11046530	62861702
PLW8617 RT	•	--	•	--	--	•	--	11046540	62861703
PLW8617 TH RT	•	--	•	--	•	•	--	11046550	62861704
PLW8617 EL/S	•	--	--	•	--	--	--	11046560	62861705
PLW8617 EL/S TH	•	--	--	•	•	--	--	11046570	62861706
PLW8617 EL/S RT	•	--	--	•	--	•	--	11046580	62861707
PLW8617 EL/S TH RT	•	--	--	•	•	•	--	11046590	62861708

## Machine modules

Type	Designation	Mat. no.	Art. no.
DU900	Electric drying unit for 900 mm units	10880710	69250004
DU1150	Electric drying unit for 1150 mm units	10880760	69250005
TC900 <sup>1</sup>	Top-box panelling 900 mm units	10880700	69252003
TC1150 <sup>1</sup>	Top-box panelling 1150 mm units	10880750	69252004
SC	Steam condenser	10928990	69251300
DP	Drain pump	10931330	69240003
PR	Printer on infeed side	10931290	69247003
DS5	Dispensing system, 5 l canister	10880860	69249001
DS10	Dispensing system, 10 l canister	10880870	69249101
FP900	Plinth, fixed, 900 mm	10941870	69253005
RP900	Roller plinth, 900 mm	10941940	69253007
RP1150	Roller plinth, 1150 mm	10941950	69253008

<sup>1</sup> Does not apply to models WITHOUT drying and WITHOUT steam condenser

# Modular and flexible accessories for PLW 86 lab washers

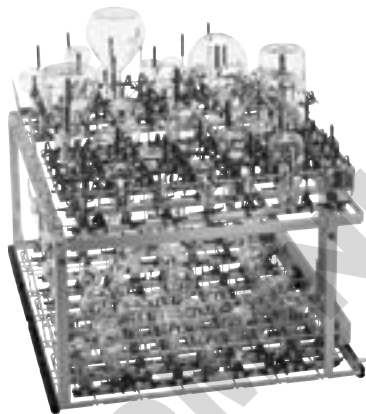
## Flexibility and perfected compatibility

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.

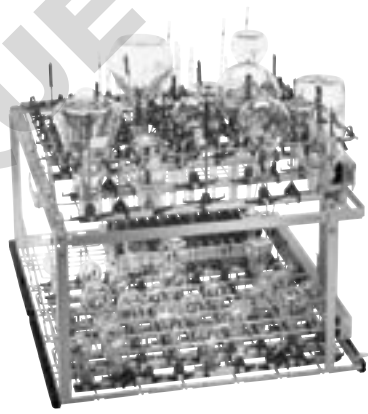
- 5 basic load carriers
- 9 rack levels and modules
- Combined with various nozzles and further accessories for tailor-made flexibility in the reprocessing of laboratory glassware



**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



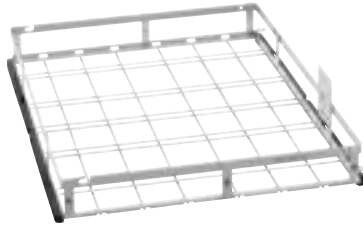
**A 503 with 1 x A 613, 2 x A 621, 1 x A 620, 1 x A 622**  
• 98 positions for pipettes  
• 90 positions with injector nozzles



**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

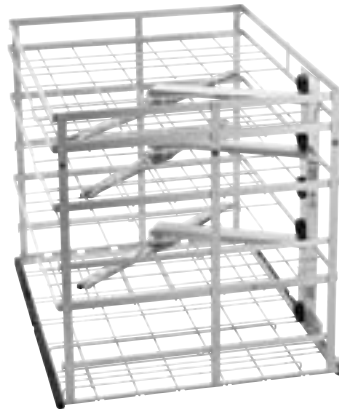
For PLW 8615, PLW 8616 and PLW 8617



## 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

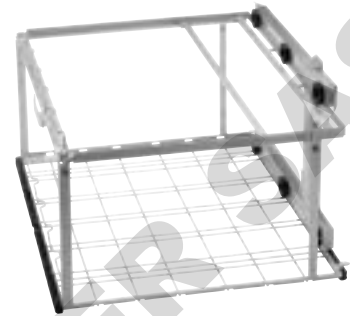
Mat. no. 10973880, Art. no. 69.6500.01



## 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
- Extendible 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

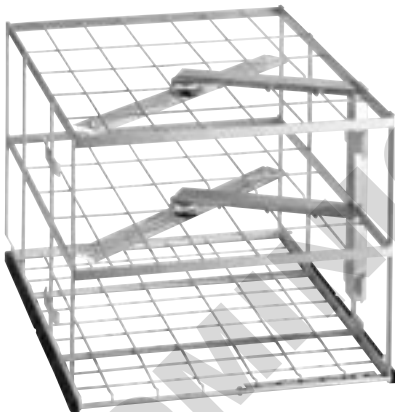
Mat. no. 10973890, Art. no. 69.6501.01



## 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

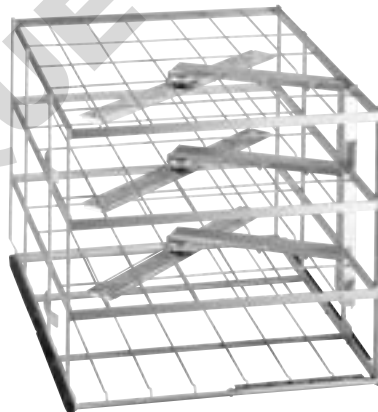
Mat. no. 10973900, Art. no. 69.6503.01



## 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

Mat. no. 10998970, Art. no. 69.6505.00



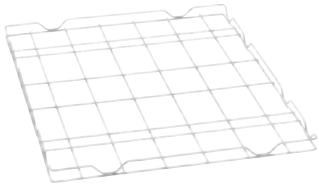
## A 506 load carrier

- 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

Mat. no. 10999130, Art. no. 69.6506.00

# 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

Mat. no. 10973970, Art. no. 69.6601.01



## A 603 rack

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

Mat. no. 10973980, Art. no. 69.6603.00



## 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

Mat. no. 10973990, Art. no. 69.6606.01



## TT 86 transfer trolley

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

Mat. no. 11178960, Art. no. 69.2001.15



# EasyLoad – 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

Figure: Load rack with support frame



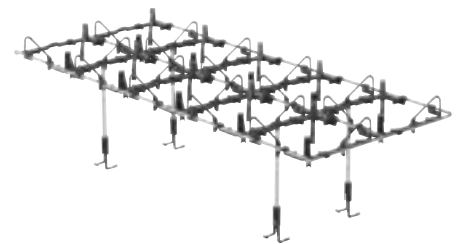
## EasyLoad means efficiency and a systematic approach to convenience:

- New injector nozzles  
(3 diameters, 6 lengths)
- New plastic holders  
and rests
- 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 rest surrounds the injector nozzles in the module or basket, preventing lateral movement without wasting valuable height.



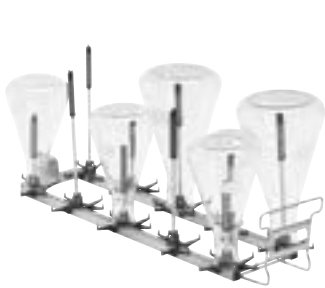
The new support frame provides additional hold. As and when required, it is placed on top of the injector module, providing a secure hold to even large items of laboratory glassware in a vertical and protected position.

**EASYLOAD**

 **System4Lab**

# EasyLoad: 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

Mat. no. 10999100, Art. no. 69.6620.00



## 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

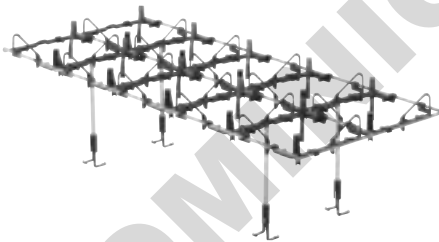
Mat. no. 10999110, Art. no. 69.6621.00



## 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 40 injector positions (nozzles not included)
- H 113, W 208, D 614 mm

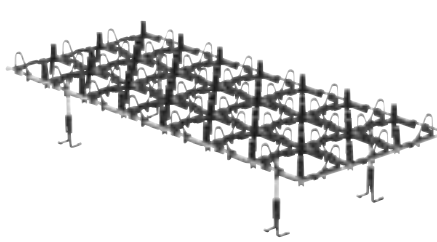
Mat. no. 10999120, Art. no. 69.6622.00



## A 850 holder frame 2 x 5

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

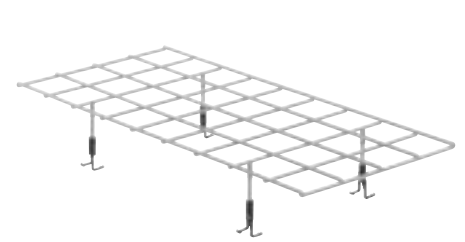
Art. no. 69.6850.00



## A 851 holder frame 3 x 7

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

Art. no. 69.6851.00



## A 852 holder frame 4 x 9

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

Art. no. 69.6852.00

# EasyLoad: Injector nozzles



## A 840 injector nozzle

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

Mat. no. 11056100, Art. no. 69.6840.00  
Mat. no. 11112600, Art. no. 69.6840.01  
Mat. no. 11113160, Art. no. 69.6840.02  
Mat. no. 11113170, Art. no. 69.6840.03



## A 841 injector nozzle

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

Mat. no. 11056190, Art. no. 69.6841.00  
Mat. no. 11113130, Art. no. 69.6841.01  
Mat. no. 11113140, Art. no. 69.6841.02  
Mat. no. 11113150, Art. no. 69.6841.03



## A 842 injector nozzle

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

Mat. no. 11056330, Art. no. 69.6842.00  
Mat. no. 11113590, Art. no. 69.6842.01  
Mat. no. 11113630, Art. no. 69.6842.02  
Mat. no. 11113670, Art. no. 69.6842.03



## A 843 injector nozzle

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

Mat. no. 11056440, Art. no. 69.6843.00  
Mat. no. 11113720, Art. no. 69.6843.01  
Mat. no. 11113730, Art. no. 69.6843.02  
Mat. no. 11113760, Art. no. 69.6843.03



## A 844 injector nozzle

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

Mat. no. 11056600, Art. no. 69.6844.00  
Mat. no. 11115470, Art. no. 69.6844.01  
Mat. no. 11115500, Art. no. 69.6844.02  
Mat. no. 11115520, Art. no. 69.6844.03

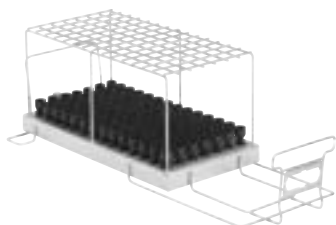


## A 845 injector nozzle

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

Mat. no. 11056670, Art. no. 69.6845.00  
Mat. no. 11116120, Art. no. 69.6845.01  
Mat. no. 11116130, Art. no. 69.6845.02  
Mat. no. 11116140, Art. no. 69.6845.03

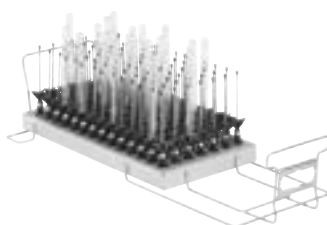
# Injector modules for pipettes, phials and measuring cylinders



## A 613 module

- For reprocessing up to 98 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

Mat. no. 10999070, Art. no. 69.6613.00



## A 605 module

- For reprocessing max. 98 centrifuge tubes, phials, 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

Mat. no. 10999010, Art. no. 69.6605.00



## A 623 module

- For reprocessing 1-2 l measuring cylinders, tall
- Suitable for two 1-2 l measuring cylinders, short and 2 tall
- Simplified loading thanks to swivel racks
- Plastic-coated contact surfaces

Mat. no. 11025560, Art. no. 69.6623.00

# Injector module for bulky laboratory glassware

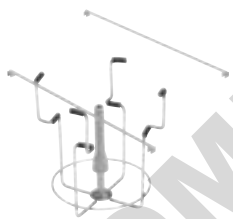
For use in A 503 load carrier



## A 612 module

- For reprocessing 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

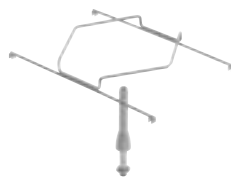
Mat. no. 10999050, Art. no. 69.6612.00



## 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

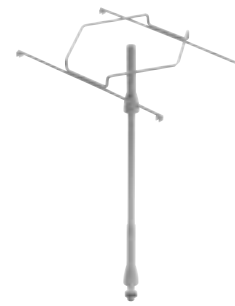
Mat. no. 11025590, Art. no. 69.6846.00



## A 847 injector nozzle

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

Mat. no. 11025600, Art. no. 69.6847.00



## A 848 injector nozzle

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

Mat. no. 11025610, Art. no. 69.6848.00

# 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	EasyLoad holder frames			EasyLoad 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

## **Immer Besser**

Since 1899, Miele – a family-run company – has subscribed to a clear corporate philosophy condensed into the two words “Immer Besser” (Forever better). This overarching claim is the foundation of Miele’s proverbial quality and sustainability, and the power of innovation of a brand “Made in Germany”. A brand promise which gives professional 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 sterilisers for decades. Carefully selected accessories, comprehensive advisory services and a Miele service operation which guarantees fast response times ensure that appliances perform to perfection and offer the ultimate in capacity and efficiency.

## **Miele Professional on the web**

- For detailed information on technical data, features and accessories
- Brochures covering all product groups and applications available as downloads
- Detailed information, instructions and product presentations on Miele Professional’s YouTube channel