# Miele

# Setting new standards PLW 86 series Laboratory Glassware Washers

Miele Professional. Immer Besser.











# A new approach to clean laboratory glassware

Miele continues to set new standards of performance with the 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 SimpleLoad system of accessories ensures correct, efficient loading of glassware for optimum results every time.

Along with these and other new features, Miele's 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

- $\bullet$  900 mm (35 $^{7}\!/_{16}$ ") and 1150 mm (45 $^{1}\!/_{4}$ ") 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
- $\bullet$  The 900 mm (357/16") 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





#### 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





#### 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





#### 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



## 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 I canisters
- Simple handling due to dispensing system drawer
- 2 dispenser pumps, expandable to max. 6 dispenser pumps
- Dispensing monitoring with high-precision flow meter

# Large chamber lab washer

### PLW 8615, PLW 8616 und PLW 8617







Lab washers	PLW 8615	PLW 8616	PLW 8617
Labwasher Height <sup>1</sup> x Width x Depth [ mm (in) ]	2495 (98 1/4) x 900 (35 <sup>7</sup> / <sub>16</sub> ) x 990 (39)	2495 (98 1/4) x 900 (35 7/16) x 990 (39)	2495 (98 ¼) x 1150 (45 ¼) x 990 (39)
Usable wash cabinet HxWxD [ mm (in) ]	675 (26 <sup>9</sup> / <sub>16</sub> ) x 650 (25 <sup>9</sup> / <sub>16</sub> ) x 800 (31½)	675 (26 <sup>9</sup> / <sub>16</sub> ) x 650 (25 <sup>9</sup> / <sub>16</sub> ) x 800 (31½)	675 (26 <sup>9</sup> / <sub>16</sub> ) x 650 (25 <sup>9</sup> / <sub>16</sub> ) x 800 (31½)
Usable chamber volume [ L (cu.ft) ]	351 (12.39)	351 (12.39)	351 (12.39)
Vertical clearance	675 mm (26½")	675 mm (26½")	675 mm (26½")
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 siphons, ex-works	10L and 5L	10L and 5L	10L and 10L
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 components			
Drain pump	•	•	•
Drying Unit, electric incl. HEPA H14 filter	•	•	•
Steam condenser <sup>3</sup>	•	•	•
Printer	•	•	•
Fixed Plinth	-	•	_
Rolling Plinth	•	-	•
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

<sup>1</sup> incl. plinth, 100 mm 2 max chamber height based on lowest depth of chamber floor to chamber ceiling 3 only in combination with drying unit

# Model versions and modules

#### Basic version

	Doors		Heating sys	tem	Tank feature	s			•
Туре	1 door	2 doors	Electric	Electric/Steam	Pre-heating tank	Recycling tank	Combi tank	Mat. No. (USA)	Art. No. (Canada)
PLW8615	•		•					11179530	62861501USA
PLW8615 CT	•		•				•	11179540	62861502USA
PLW8615 EL/S	•			•				11179550	62861503USA
PLW8615 EL/S CT	•			•			•	11179560	62861504USA
PLW8616		•	•					11179570	62861601USA
PLW8616 CT		•	•				•	11179580	62861602USA
PLW8616 EL/S CT		•		•			•	11179770	62861604USA
PLW8617	•		•					11179780	62861701USA
PLW8617 TH	•		•		•			11179790	62861702USA
PLW8617 TH RT	•		•		•	•		11179810	62861704USA
PLW8617 EL/S TH	•			•	•			11179830	62861706USA
PLW8617 EL/S TH RT	•			•	•	•		11179850	62861708USA

#### Optional modules

Туре	Description	Mat. no.
DU900US	Electric drying unit, W 900 mm lab washer	11382230
DU900RVUS	Electric drying unit with grille, W 900 mm lab washer	11382320
TC900 <sup>1</sup>	Top-box panelling, W 900 mm lab washer	10880700
PR900	Printer on infeed side, W 900 mm lab washer	11491220
FP900	Fixed plinth, W 900 mm lab washer	10941870
RP900	Rolling plinth, W 900 mm lab washer	10941940
DU1150US	Electric drying unit, W 1150 mm lab washer	11382260
DU1150RVUS	Electric drying unit with grille, W 1150 mm lab washer	11382350
TC1150 <sup>1</sup>	Top-box panelling, W 1150 mm lab washer	10880750
PR1500	Printer on infeed side, W 1150 mm lab washer	10931290
FP1150	Fixed plinth, W 1150 mm lab washer	10941880
RP1150	Rolling plinth, W 1150 mm lab washer	10941950
SC	Steam condenser	10928990
DP	Drain pump	11516100
PR	Printer	10931290
DS5	Dispensing system (additional), 5 I canister	10880860
DS10	Dispensing system (additional), 10 I canister	10880870

 $<sup>^{\</sup>rm 1}\,\rm TC$  must be ordered when there is no DU no SC. TC included with DU.

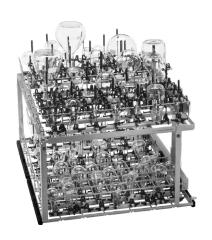
# Modular and flexible accessories for PLW 86 lab washers

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

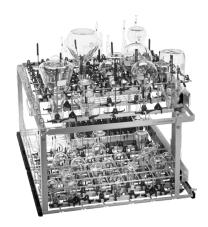


A 503 with 3 x A 613
• 294 positions for pipettes



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

Mat. no. 10973880



#### 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

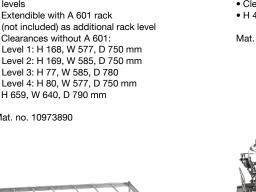
Mat. no. 10998970



#### 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
- 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
- H 659, W 640, D 790 mm

Mat. no. 10973890





#### A 506 load carrier

- · For inserts (and possibly mesh trays) and for cleaning laboratory glassware and utensils
- · Load carrier with 4 rack levels

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

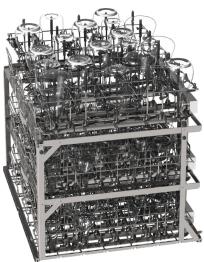
• H 557, W 640, D 790 mm

Mat. no. 10999130



#### A 503 load carrier

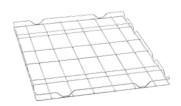
- For up to 6 injector modules on 2 levels together with inserts (and possibly mesh trays) for cleaning laboratory glassware and utensils
- Clearances: H 670, W 565, D 770 mm
- H 433, W 650, D 790 mm



- Three Level mobile unit for injectors
- H 534 W650 D790mm
- Mat 1182580

### 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



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

Mat. no. 10973980



#### 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



#### TT 86 transfer cart

- Equipped with 4 castors
  Simple and convenient handling due to ergonomic
- With removable drip tray
- for use in PLW86 Series only

Mat. no. 11178960

#### RF MF 27/28 Retrofit Kit (not illustrated)

• for use with PG 852x Series transfer cart in the PLW86 Series



### 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 2x5

- 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



#### A 621 module 3x7

- 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



#### A 622 module 4x9

- 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

Mat. no. 10999120



#### 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

Mat. no. 11236630



#### 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

Mat. no. 11236640



#### 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)

Mat. no. 11056100



#### 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)

Mat. no. 11056190



#### 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)

Mat. no. 11056330



#### 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)

Mat. no. 11056440



#### 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)

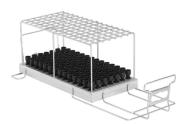
Mat. no. 11056600



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

Mat. no. 10999070



#### A 605 module

- To clean max. 98 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

Mat. no. 10999010



- For the gentle cleaning of delicate wash items by interrupting the spray jet
- With perforations 7 x 7 mm

Mat. no. 11295510



#### A 623 module

- To clean 1-2 I measuring cylinders, tall

  Suitable for two 1–2 I measuring cylinders, short
- Simplified loading due to swivel racks
- Plastic-coated contact surfaces

Mat. no. 11025560



- Suitable for beakers, funnels, etc.
- With flexible handles

## 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 I 10 I
  - Round flasks, 2 I 6 I
- Erlenmeyer flasks, 2 I 5 I
- Measuring cylinders, 2 I 5 I
- 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



#### A 857 Conversion kit

For using PG 8527/28 mobile units with PG 86xx series

Mat. no. 11235960



#### 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



#### 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



#### 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

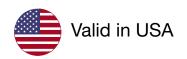
#### Additional rack levels in load carriers

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	SimpleLo	oad holder	frames	SimpleLo	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 605 (max. 6)	-	-	-	-	-	-	-	-	-	-	-	-
	A 606 (max. 1)	-	-	-	-	-	-	-	-	-	-	-	-
A 503	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)	-	-	-	-	-	-	-	-	-	-	-	-

<sup>!=</sup> Use possible, depending on application







- ProCare Lab 10 MA
- Alkaline detergent
- Liquid
- Container size 10 I



#### ProCare Lab 11 AP

- Alkaline detergent
- Powder
- Container size 10 kg



#### ProCare Lab 30 C

- Acidic neutralizing agent based on citric acid
- Liquid
- Container sizes 5 I, 10 I



- ProCare Lab 10 AP
- Alkaline detergent
- Liquid
- Container sizes 5 I, 10 I



- ProCare Lab 10 AT
- Alkaline detergent
- Liquid
- Container size 5 I



- ProCare Lab 10 AO\*
- Alkaline detergent
- Liquid
- Container size 5 I



#### ProCare Lab 30P

- Acidic neutralizing agent based on phosphoric acid
- Liquid
- Container sizes 5 I



#### **ProCare Universal 61**

- Coarse special salt
- Container size 6 kg



#### Canister key

• Simplifies the opening of firmly tightened safety caps

\*Note: When using detergents with active chlorine, increased wear of organic materials such as plastics and elastomers in the lab washer is to be expected. A temperature of 75°C should therefore not be exceeded in main wash cycles when using detergents containing higher concentrations of chlorine. In order to prevent such wear and tear, Miele recommends that machines be serviced annually or after 1000 operating hours. A failure to perform regular maintenance may invalidate guarantee and warranty claims. Please contact Miele Service or request an offer for a maintenance contract.

Note: Additional detergents available - please contact your Miele representative for more info.

# ProCare Lab





Product	Container size	Properties	Ingredients	pH range
Main wash  ProCare Lab 10 MA	101	Liquid, alkaline Free from: Tensides and oxidative agents	Alkali hydroxide Phosphates Silicates	11.6-11.8 <sup>2</sup>
ProCare Lab	5 I, 10 I	Liquid, alkaline Free from: Tensides, Phosphates and oxidative agents	Alkali hydroxide Polycarboxylates	12.5-12.7 <sup>2</sup>
<ul><li>ProCare Lab</li><li>10 AT</li></ul>	51	Liquid, alkaline contains tensides Free from: Phosphates, silicates and oxidative agents	Alkali hydroxide Polycarboxylates Tensides	12.2-12.5 <sup>2</sup>
ProCare Lab 10 AO*	51	Liquid, alkaline Oxidative Free from: Tensides	Alkali hydroxide Phosphates Chlorine bleach	11.8-12.1 <sup>2</sup>
<ul><li>ProCare Lab</li><li>11 AP</li></ul>	10 kg	Powder, alkaline Oxidative Free from: Phosphates,	Oxygen bleach Tensides	11.5-11.7 1
Neutralisation				
● ProCare Lab 30 C	5 I, 10 I	Liquid Acidic (based on citric acid) Free from: Tensides and phosphates	Citric acid	2.9 -2.5 <sup>3</sup>
ProCare Lab	51	Liquid Acidic (based on citric acid) Free from: Tensides and phosphates	Phosphoric acid	2.2-1.9 4
Reactivating				
<ul><li>ProCare Universal 61</li></ul>	6 kg	Coarse special salt for reactivation of built-in water softener		

 $<sup>^1</sup>$  pH value (determined using fully demineralised water at 20°C) 2 to 4 g/l  $^2$  pH value (determined using fully demineralised water at 20°C) 2 to 4 g/l  $^3$  pH value (determined using fully demineralised water at 20°C) 1 to 4 g/l  $^4$  pH value (determined using fully demineralised water at 20°C) 1 to 3 g/l

# Valid in Canada



#### ProCare Lab 10 MA

- Mildly alkaline detergent
- Liquid
- Container size 5 l
- Art.No. 10265670



#### ProCare Lab 10 AP

- Alkaline detergent
- Liquid
- Container sizes 5 I, 10 I



#### ProCare Lab 11 MA

- Alkaline detergent
- Liquid
- Container size 10 kg



#### ProCare Lab 11 AP

- Alkaline detergent
- Powder
- Container size 10 kg



#### ProCare Lab 30 C

- Acidic neutralizing agent based on citric acid
- Liquid
- Container sizes 5 I, 10 I



#### ProCare Lab 30P

- Acidic neutralizing agent based on phosphoric acid
- Liquid
- Container sizes 5 I, 12 kg



#### **ProCare Universal 61**

- Coarse special salt
- Container size 6 kg



#### Canister key

• Simplifies the opening of firmly tightened safety caps

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### ProCare Lab





Product	Container size	Properties	Ingredients	pH range
Main wash				
ProCare Lab 10 MA	51	Liquid, mildly alkaline Free from: Tensides and oxidative agents	Alkali hydroxide Phosphates Silicates	11.6-11.8 <sup>2</sup>
ProCare Lab	5 I, 10 I	Liquid, alkaline Free from: Tensides, Phosphates and oxidative agents	Alkali hydroxide Polycarboxylates	12.5-12.7 <sup>2</sup>
ProCare Lab 11 MA	10 kg	Powder, mildly alkaline Foam-retardant action Free from: Oxidative agents	Phosphates Silicates Tensides	11.7-11.9 <sup>1</sup>
ProCare Lab	10 kg	Powder, alkaline Oxidative Free from: Phosphates,	Oxygen bleach Tensides	11.5-11.7 1
Neutralisation				
ProCare Lab 30 C	5 I, 10 I	Liquid Acidic (based on citric acid) Free from: Tensides and phosphates	Citric acid	2.9 -2.5 <sup>3</sup>
ProCare Lab	5 l, 12 kg	Liquid Acidic (based on citric acid) Free from: Tensides and phosphates	Phosphoric acid	2.2-1.9 <sup>4</sup>
Reactivating				
<ul><li>ProCare Universal 61</li></ul>	6 kg	Coarse special salt for reactivation of built-in water softener		

 $<sup>^1</sup>$  pH value (determined using fully demineralised water at 20°C) 2 to 4 g/l  $^2$  pH value (determined using fully demineralised water at 20°C) 2 to 4 g/l  $^3$  pH value (determined using fully demineralised water at 20°C) 1 to 4 g/l  $^4$  pH value (determined using fully demineralised water at 20°C) 1 to 3 g/l

### Service Excellence

# Support is always available to you. Maintenance and service contracts

Miele Professional is synonymous with exceptional quality – not least when it comes to service. First service visits result in around 90% first-time fixes.



#### 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 maintenance based on specific Miele service plan
- Preventative exchange of defined parts subject to wear and tear included

#### Protection Plan: US only

- Thorough testing of machine functions during scheduled service
- Charges for on-site labour and materials included

Terms and Conditions apply.

Travel charges are not included.

#### **Full Protection Plan**

- Annual maintenance based on specific Miele service plan
- Inspection of the machine functions
- Preventative exchange of defined parts subject to wear and tear included
- Charges for on-site labour and material included

Terms and Conditions apply.
Travel charges are not included.

#### Machine qualification IQ / OQ

- · Installation Qualification
- · Operation Qualification

#### Service to meet professional expectations

Highly qualified service technicians support customers with the delivery and commissioning of machines and perform routine checks during use. This prevents downtimes and helps to optimize operating parameters. Regular checks and maintenance prolonges the life expectancy of the machines.

- Quality service through network of technicians
- 90% of service calls result in first-time fixes
- Reliable spares service, key functional parts available for up to 15 years after series production ceases.

#### Customized service contracts and inspections

Miele Professional offers laboratories of all sizes tailoed annual service contracts. During the terms of these contracts, Miele service technicians regularly inspect the condition of machines, depending on the type of contract. Scheduled inspection and maintenance appointments prevent breakdowns, increases the life expectancy of machines and contributes towards safeguarding investments.

### Míele



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since 1899

#### 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 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.