



## The new SlimLine lab washers – Compact dimensions, high capacity

With its new SlimLine lab washers, high-performance reprocessing methods, perfectly matching ProCare Lab process chemicals and practical accessories, Miele is offering a comprehensive and systematic solution to the reprocessing of laboratory glassware for analytical experiments. Going beyond standard approaches, Miele engineers together with users have come up with individualised solutions to tackle everyday laboratory challenges.

# Product benefit overview

## PLW 6011 and PLW 6111



### SmartLoad – flexible use of chamber space

The new SlimLine lab washers from Miele Professional excel in terms of high performance on a small footprint. And what's more, the innovative SmartLoad system enables chamber space to be used particularly efficiently.

Models from the PLW 6111 series are able to accommodate up to 3 baskets on telescopic racks. These baskets dock onto the water circulation system at 4 different heights. This allows a wide range of load height combinations, starting with using the lowest rack level only for a maximum vertical clearance of 630 mm.



### Compact machine dimensions combined with large chamber capacity

- Small footprint with width of only 650 mm
- 3 levels with injector nozzles
- Vertical clearance of up to 630 mm for large vessels
- 121 pipettes and 40 bottles (1 l) in a single cycle



### Spotless results through combination of programme cycle and process chemicals

- ProCare Lab process chemicals for optimum results
- Thorough cleaning combined with the gentlest treatment of materials
- Detergents and neutralising agents in various canister sizes



#### Intelligent controls

- Controls with flush, uninterrupted touch glass screen
- All information visible at a glance thanks to 3.5" display
- Maximum of 40 programme slots (standard programmes and vacant programme slots)
- Simple and effective cleaning
- RS232 port for connecting to a printer or PC



#### Simple and efficient cleaning processes

- Chamber, spray arms and tank filters are made from high-grade stainless steel (DIN 1.4404/AISI 316L)
- Conductivity monitoring for high-level process security
- HEPA H14 fine filter for germ-free drying air
- Built-in water softener\*
- Heated boiler for shorter cycle times\*

\* depending on model



#### Visual monitoring of chamber

- Process control thanks to full glass door
- Integrated chamber lighting
- Automatic door lock



#### Wide range of load carriers

- Range specifically designed for laboratory use
- Maximum flexibility combined with intuitive use
- Wide range of standard and configurable loading options
- Possibility to reprocess even the smallest items of laboratory glassware through to very large containers (up to 50 l)

# The new SlimLine lab washers

PLW 6011



**SmartLoad**  
2 racks  
3 levels

SlimLine lab washer	PLW 6011
External dimensions [Width x Height x Depth mm]	650, 1685, 660
Chamber dimensions [Width x Height x Depth mm]	540, 540, 585
Usable volume [l]	170
Load concept	Rack system with max. 2 levels and 3 different positions
Programmes	40 programme positions
Programme selection	Touch on Glass
<b>Features</b>	
Single-door model	•
Glass door, bottom-hinged, chamber lighting	•
Electric heating	•
Hot-air drying, incl. HEPA H14 filter	•
Steam condenser	•
Integrated dispenser pumps	2
Drain pump	•
Water connections	HW, CW, de-mineralised water
Electrical connection 3N AC 400 V, 50 Hz	•
Total rated load [kW]	8.25
Conductivity meter	model-dependent
Water softener	model-dependent
Sampling tap	model-dependent
USB port	model-dependent
<b>Load capacity</b>	
100 ml laboratory bottles	84
250 ml laboratory bottles	84
1000 ml laboratory bottles	20
Phials	312
Pipettes	121

# The new SlimLine lab washers

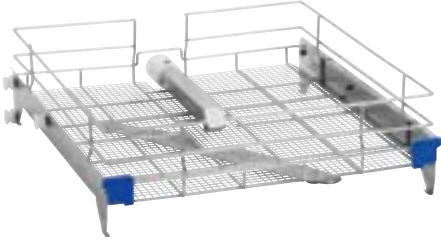
PLW 6111



 **SmartLoad**  
3 racks  
4 levels

SlimLine lab washer	PLW 6111
External dimensions [Width x Height x Depth mm]	650, 1840, 687
Chamber dimensions [Width x Height x Depth mm]	540, 690, 585
Usable volume [l]	218
Load concept	Rack system with max. 3 levels and 4 different positions
Programmes	40 programme positions
Programme selection	Touch on Glass
<b>Features</b>	
Single-door model	•
Glass door, bottom-hinged, chamber lighting	•
Electric heating	•
Hot-air drying, incl. HEPA H14 filter	•
Steam condenser	•
Integrated dispenser pumps	2
Drain pump	•
Water connections	HW, CW, de-mineralised water
Electrical connection 3N AC 400 V, 50 Hz	•
Total rated load [kW]	8.25
Conductivity meter	model-dependent
Water softener	model-dependent
Sampling tap	model-dependent
USB port	model-dependent
<b>Load capacity</b>	
100 ml laboratory bottles	126
250 ml laboratory bottles	84
1000 ml laboratory bottles	40
Phials	468
Pipettes	121

# Standard baskets



## APLW 000 upper basket

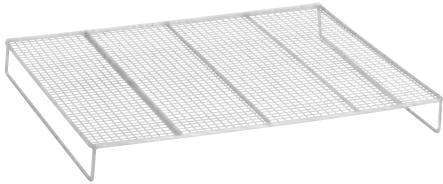
- For laboratory glassware, e.g. beakers
- Useable surface: 485 x 525 mm



## APLW 001 load carrier

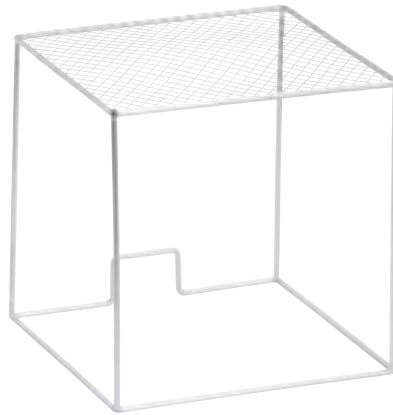
- For laboratory glassware, e.g. beakers
- Useable surface: 490 x 540 mm

# Inserts



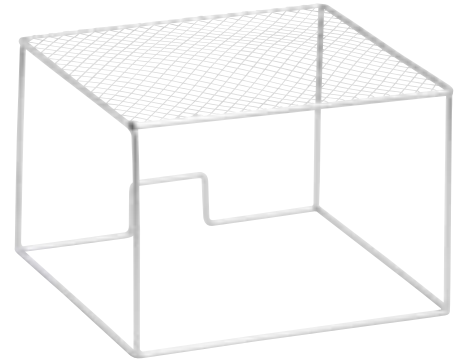
## APLW 033 top frame

- Vertical clearance reduced by 50 mm



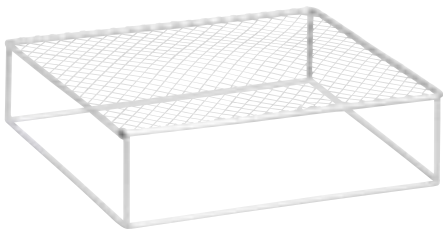
## APLW 034 cover

- Cover for light-weight laboratory glassware, e.g. test tubes



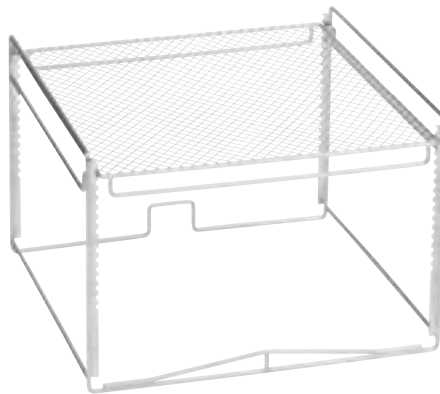
## APLW 035 cover

- Cover for light-weight laboratory glassware, e.g. test tubes



## APLW 036 cover

- Basket cover



## APLW 037 protective grid

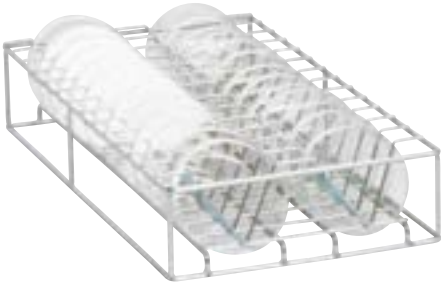
- Adjustable protective cover for the safe reprocessing of test tubes



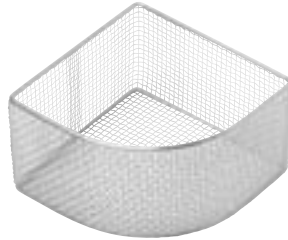
## APLW 038 insert

- Insert with spring hook for laboratory glassware
- 14 spring hooks, 175 mm
- 14 spring hooks, 105 mm

# Inserts



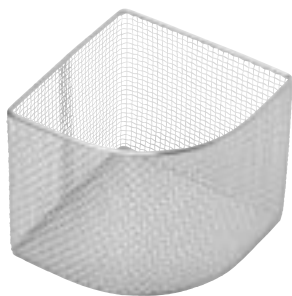
**APLW 039 insert**  
• For Petri dishes  
• 26 items



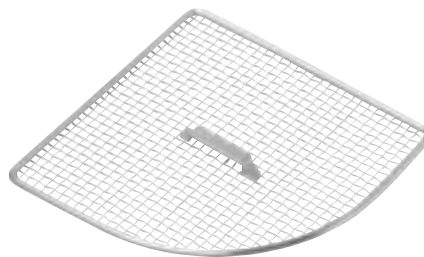
**APLW 040 insert**  
• For test tubes  
• Height 115 mm



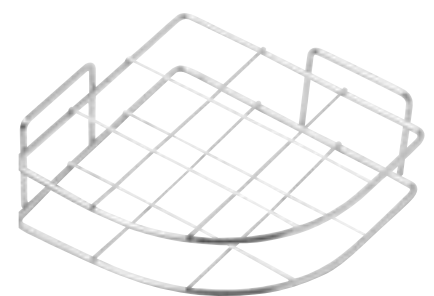
**APLW 041 insert**  
• For test tubes  
• Height 145 mm



**APLW 042 insert**  
• For test tubes  
• Height 215 mm



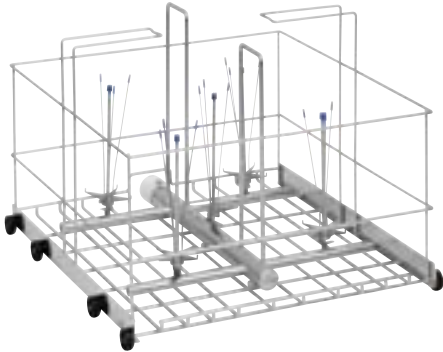
**APLW 043 lid**  
• Cover for APLW 040, APLW 041 and APLW 042



**APLW 044 insert**  
• For test tubes  
• Separator for APLW 040, APLW 041 and APLW 042

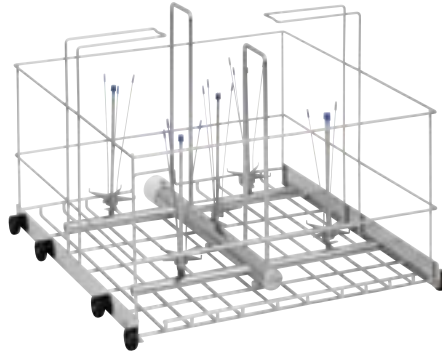


# Pre-configured baskets



## APLW 002 load carrier

- For bottles (5 and 10 l), large Erlenmeyer flasks
- Up to 4 items, Ø max mm 240
- Up to 5 items, Ø max mm 190



## APLW 003 load carrier

- For bottles (up to 20 l), large Erlenmeyer flasks
- Up to 2 items, Ø max. mm 280



## APLW 004 load carrier

- For bottles, max. 50 l



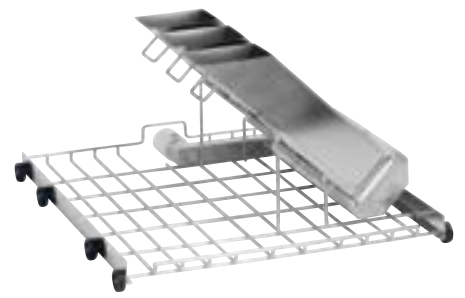
## APLW 005 load carrier

- For pipettes (max. 56)
- Max. pipette length: 760 mm on PLW 6111



## APLW 006 load carrier

- For pipettes (max. 121)
- Max. pipette length: 470 mm on PLW 6011



## APLW 008 load carrier

- For pipettes (reprocessing in 3 cartridges)



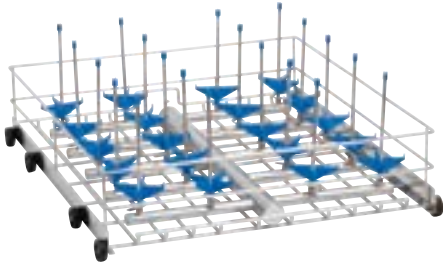
## APLW 007 load carrier

- For pipettes (reprocessing in 2 cartridges)
- Max. pipette length 520 mm



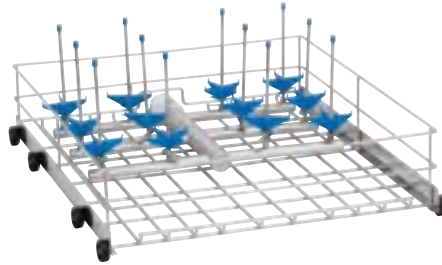
# Upper and lower baskets with configurable nozzles

## Basket layouts



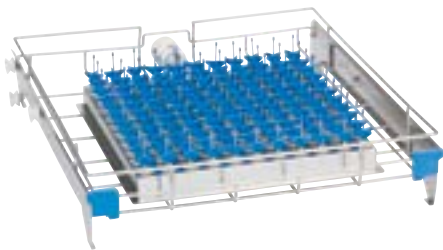
**Basket layout 1**

Fig. shows example of APLW 030 lower basket



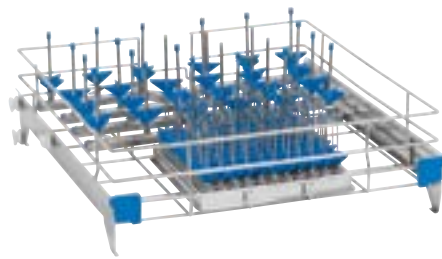
**Basket layout 2**

Fig. shows example of APLW 026 lower basket



**Basket layout 4**

Fig. shows example of APLW 019 upper basket



**Basket layout 3**

Fig. shows example of APLW 018 upper basket

# Upper and lower baskets, with pre-fitted nozzles

## Basket versions

Upper basket	Ø max. mm	Max. height mm	No. of nozzles	Basket layout	Note
APLW 013/1	70	160	42	2	With 42x APLW 051
APLW 013/2	70	200 - 300	10 + 32	2	With 32x APLW 051 + 10x APLW 055
APLW 014/1	100	230	20	1	With 20x APLW 055
APLW 018/1	20 + 75	160	24 + 121	3	With 121x APLW 048 + 24x APLW 051
APLW 019/1	25	90	121	4	With 121x APLW 047

Lower basket	Ø max. mm	Max. height mm	No. of nozzles	Basket layout	Note
APLW 020/1	25	140	121	4	With 121x APLW 047
APLW 024/1	70	230	42	1	With 42x APLW 052
APLW 024/2	70	200 - 300	42	1	With 10x APLW 055 + 32x APLW 051
APLW 024/3	70	180 - 280	42	1	With 12x APLW 067 + 30x APLW 066
APLW 025/1	70	200 - 300	24	2	With 12x APLW 056 + 12x APLW 052
APLW 026/1	100	300	20	1	With 20x APLW 056
APLW 30/1	100	180 - 280	12	2	With 6x APLW 067 + 6x APLW 066
APLW 032/1	20 + 75	160 - 300	24 + 121	3	With 121x APLW 048 + 24x APLW 056

# Upper and lower baskets, empty, freely configurable with nozzles

## Basket versions

Upper basket	Ø max. mm	No. of nozzles	Basket layout	Note
APLW 010	32	156	1	only for 2.5 mm Ø nozzles
APLW 011	40	110	1	only for 2.5 mm Ø nozzles
APLW 012	35	84	1	only for 2.5 mm Ø nozzles
APLW 013	70	42	1	
APLW 014	100	20	1	
APLW 015	110	16	1	
APLW 016	75	27	1	
APLW 017	20	121	2	200x490 mm grid
APLW 018	75	24+121	3	See also APLW 035, APLW 034, APLW 036
APLW 019	25	121	4	only for 2.5 mm Ø nozzles

Lower basket	Ø max. mm	No. of nozzles	Basket layout	Note
APLW 020	25	121	4	only for 2.5 mm Ø nozzles
APLW 021	40	110	1	only for 2.5 mm Ø nozzles
APLW 022	52	70	1	only for 2.5 mm Ø nozzles
APLW 023	60	56	1	only for 2.5 mm Ø nozzles
APLW 024	70	42	1	
APLW 025	70	24	2	230 x 490 mm usable space
APLW 026	100	20	1	
APLW 027	110	16	1	
APLW 028	75	27	1	
APLW 029	130	12	1	
APLW 030	100	12	2	220x490 mm grid
APLW 031	160	9	1	
APLW 032	75	24+121	3	See also APLW 035, APLW 034, APLW 036

# Injector nozzles for configuration of baskets



## Nozzle type 1

- Standard support, Ø 4 mm for test tubes, low-capacity measuring cylinders, centrifuge tubes
- Fig. shows example of APLW 045



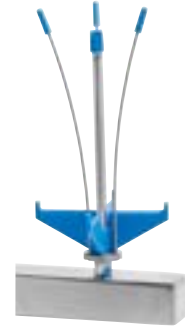
## Nozzle type 2

- Standard support, Ø 5 mm for narrow-necked glasses, measuring cylinders
- Fig. shows example of APLW 050



## Nozzle type 3

- Standard support, Ø 10 mm for narrow-necked glasses, measuring cylinders
- Fig. shows example of APLW 053



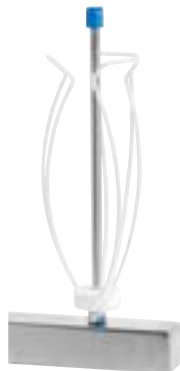
## Nozzle type 4

- Flexible support, interior Ø 10 mm for Erlenmeyer flasks, wide- and narrow-necked glasses, measuring cylinders, Imhoff flasks
- Fig. shows example of APLW 058



## Nozzle type 5

- Rigid support, interior, Ø 10 mm for wide-necked bottles, Erlenmeyer flasks
- Fig. shows example of APLW 061



## Nozzle type 6

- Rigid support, exterior Ø 10 mm for Erlenmeyer flasks, wide- and narrow-necked glasses, measuring cylinders, Imhoff flasks
- Fig. shows example of APLW 066



## Nozzle type 7

- Rigid support, Ø 17 mm for Erlenmeyer flasks, laboratory bottles, funnels, measuring cylinders
- Fig. shows example of APLW 069

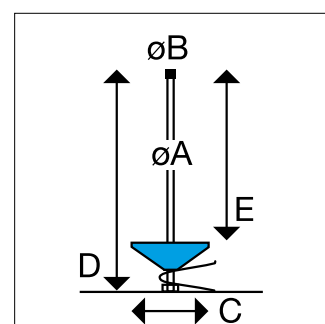
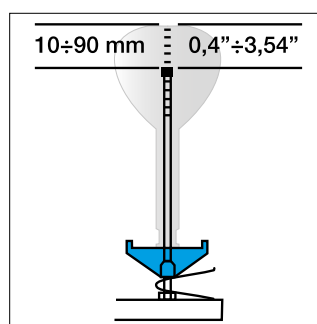


Depending on the form and size of loads, injector nozzles should be chosen to give a gap between the tip of the nozzle and the base of the glass of between 10 and 90 mm.

Various nozzles can be supplied with a spring clip for height adjustment. By adjusting the spring clip, it is possible to reprocess laboratory glassware in a variety of sizes.

When selecting injector nozzles, the following dimensions apply: Gap D must be less than the max. permissible loading height for the respective rack level, measured from the injector base to the bottom of the item of glassware.

Gap E must be adjusted to the height of the item of glassware, measured from the support to the tip of the nozzle.



	Ø A mm	Ø B mm	C mm	D mm	E mm	Model	Clamp
<b>Nozzle type 1</b>	Standard support, Ø 4 mm for test tubes, low-capacity measuring cylinders, centrifuge tubes						
APLW 045	2.5	4	15	80	75	1	No
APLW 046	2.5	4	15	80	80	1	Yes
APLW 048	2.5	4	32	80	80	2	No
APLW 047	2.5	4	32	50	50	2	No
APLW 049	2.5	4	15	80	80	2	No
<b>Nozzle type 2</b>	Standard support, Ø 5 mm for narrow-necked glasses, measuring cylinders						
APLW 050	4	5	54	75	50	2	No
APLW 051	4	5	54	110	80	3	Yes
APLW 052	4	5	54	175	130	3	Yes
<b>Nozzle type 3</b>	Standard support, Ø 10 mm for narrow-necked glasses, measuring cylinders						
APLW 053	6	10	75	115	85	2	No
APLW 054	6	10	75	135	95	3	Yes
APLW 055	6	10	75	175	130	3	Yes
APLW 056	6	10	75	225	185	3	Yes
APLW 057	6	10	75	275	235	3	Yes
<b>Nozzle type 4</b>	Flexible support, interior Ø 10 mm for Erlenmeyer flasks, wide- and narrow-necked glasses, measuring cylinders, Imhoff flasks						
APLW 058	6	10	75	135	105	2	No
APLW 059	6	10	75	225	185	3	Yes
APLW 060	6	10	75	275	235	3	Yes
<b>Nozzle type 5</b>	Rigid support, interior, Ø 10 mm for wide-necked bottles, Erlenmeyer flasks						
APLW 061	6	10	75	115	85	2	No
APLW 062	6	10	75	135	95	3	Yes
APLW 063	6	10	75	175	130	3	Yes
APLW 064	6	10	75	225	185	3	Yes
APLW 065	6	10	75	275	235	3	Yes
<b>Nozzle type 6</b>	Rigid support, exterior Ø 10 mm for Erlenmeyer flasks, wide- and narrow-necked glasses, measuring cylinders, Imhoff flasks						
APLW 066	6	10	Flexible	175			No
APLW 067	6	10	Flexible	175			Yes
APLW 068	6	10	Flexible	275			No
<b>Nozzle type 7</b>	Rigid support, Ø 17 mm for Erlenmeyer flasks, laboratory bottles, funnels, measuring cylinders						
APLW 069	8	17	87	255	235		No
APLW 070	8	17	87	320	300		No
APLW 071	8	17	105	320	300		No

# Injector nozzle accessories

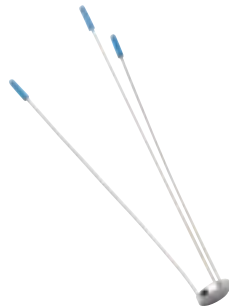


## APLW 080 holder

- Ø 6 mm
- Height: 140 mm

## APLW 081 holder

- Ø 6 mm
- Height: 186 mm



## APLW 083 bottle support

- Securing of load
- Ø 6 mm
- Height: 130 mm

## APLW 082 bottle support

- Securing of load
- Ø 6 mm
- Height: 200 mm



## APLW 093 irrigation sleeve

- Pipette holder with silicone liner (max. Ø 11 mm)



## APLW 084 bottle neck holder

- Ø 28 mm
- for injector, Ø 6 mm

## APLW 085 bottle neck holder

- Ø 33 mm
- for injector, Ø 6 mm

## APLW 086 bottle neck holder

- Ø 45 mm
- for injector, Ø 6 mm



## APLW 079 support

- Star support
- Ø 75 mm for injector, Ø 6 mm

## APLW 078 nozzle cap

- Cap
- Ø 10 mm for injector, Ø 6 mm



## APLW 088 holder

- Ø 105 mm H = 290 mm
- for injector, Ø 8 mm





**APLW 090 holder**

- Holder for pipettes
- Ø 20 mm
- Height: 21 mm

**APLW 092 blanking stopper**

- Seal



**APLW 091 holder**

- Holder for pipettes
- Ø 25 mm
- Height: 13 mm



**APLW 073 support**

- Star support
- Ø 32 mm for injector, Ø 2.5 mm

**APLW 074 support**

- Conical support
- Ø 15 mm for injector, Ø 2.5 mm

**APLW 075 nozzle cap**

- Cap
- Ø 4 mm for injector, Ø 2.5 mm



**APLW 076 support**

- Star support
- Ø 54 mm for injector, Ø 4 mm

**APLW 077 nozzle cap**

- Cap
- Ø 5 mm for injector nozzle, Ø 4 mm



**APLW 087 support**

- Stainless steel support
- Ø 87 mm
- for injector, Ø 8 mm



**APLW 089 adapter**

- Adapter
- Ø 6 mm adapter nipple
- for nozzle, Ø 8 mm

**APLW 072 blanking screw**

- For sealing nozzle connectors not in use



# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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