LABORATORY





Your Health, our Technology

AWD655

Glassware washer

AWD655

Always perfect washing cycles

The perfect line to effectively wash different types of glassware and other materials commonly used in laboratories.

In specialized laboratories quality and speed of the washing process are of utmost importance: AWD655 glassware washers offer reliability, operator safety and the highest levels of hygiene and cleanliness.

High standards of hygiene with high reliability, in compliance with the standards in force.

ϵ

The wide range of racks, nozzles and accessories have been designed to reach every recess, ensuring the washing and drying of even the most sophisticated glassworks.



AWD655-8



AWD655-8X Stainless steel door



AWD655-8XE Stainless steel door, without drying system



AWD655-8L



AWD655-8XEL Stainless steel door, without drying system





AWD655-10

AWD655-10A



AWD655-15AE Without drying system



Chemical-resistant double glass

The door is made of two layers of tempered glass, resistant to chemicals, even the most aggressive ones. It allows to see inside the wash chamber during operation



Stainless steel design

The wash chamber is made of stainless steel AISI 316L (EN 1.4404) while the chassis and external panels are made of stainless steel AISI 304 (EN 1.4301). They are shockproof and long-lasting. Scotch Brite surface finish makes cleaning easier.



Ergonomic handle

Thanks to the ergonomic handle, on models equipped with manual door, the opening and closing operations of the door are facilitated without the need to push it strongly.



Support for an easy access

On request, AWD655-8 (and variants) can be integrated with a stainless steel support under the machine that provide an ergonomics height of 150 cm when the machine is not installed undercounter, making the access to the machine easier for the operator. The support is also useful for storing detergent tanks.



Door locking and security system

The machines are equipped with an automatic door locking system which ensure a safety door block. For the safety of the operators, the machine does not allow the door to be unlocked during the wash cycle or in the presence of high temperatures. An extra sensor guarantee that, even if in presence of a malfunction of the machine, the water pump will be switched off with the unlock of the door.



Touch-pad keyboard with graphic display

The touch control panel consists of 8 backlit keys and a 3.5" LCD display. The flat display with colour graphics shows all cycle parameters, alarm messages, measured temperatures of the two temperature probes positioned in the wash chamber and the drying temperatures. AWD655-15AE is equipped with a 7" touch-screen display.



Alarm-check system

This system helps the operator to understand why an alarm has occurred before consulting the user manual. A text appears on the display with the number, the image of the alarm and the text explaining the possible causes of it.



Customizable programs

The machine is supplied with a set of standard programs, variable according to the model, and with the addition of customizable programs, up to a maximum of 40 total programs.



J Wash chamber LED light

On request, the machine can be equipped with a LED light positioned inside the wash chamber, with low energy consumption, for a better visibility during the wash cycle and during loading and unloading of the basket. For AWD655-8 (and variants), the LED may vary in color depending on machine status. In the event of an alarm, the wash chamber lights red; when the cycle is successfully completed, the wash chamber lights green.



Reliable washing

Thanks to a dedicated pressure switch that monitors in real time the water pressure of the washing circuit, all the washing parameters will be always perfect, ensuring the validation of each cycle. An alarm message on the display will indicate if there's a pressure lost during the cycle, causing a cycle stop.



Double tempered alass



Rack into the washing chamber



Touch panel with color graphic display



Microcontroller

The machine is equipped with a microcontroller that constantly monitors its operation. It's provided with an internal flash memory that allows the machine to store all the information regarding: cycle params, allarms and log history. An internal watchdog monitor the microcontroller and block the device in case of a malfunction.



Spray arm monitor

On request, the machine is equipped with a spray arm monitor system. If the washing impeller monitor is enabled, it checks the correct rotation of the spray arm. An alarm message on the display will indicate a problem during the cycle.



Conductivity probe

On request, the machine is equipped with a conductivity probe that checks the water purity level at the end of rinsing. The machine repeats the rinse cycle again to remove any residue if the conductivity probe detects a water purity level, expressed in µS/cm, higher than the preset one.



Water softener system

It is a system that makes it possible to soften the cold and hot water entering the wash chamber, so as to reduce the formation of limestone in the hydraulic circuit of the machine. The machine automatically regenerates the resins based on the water hardness set at the time of installation.



Printer

On request, the machine is equipped with a printer that prints a receipt log of the running program.



Uniform forced air drying

During the drying phase the forced air, pushed by a blower, is introduced into the washing chamber, passing through an electric heater. The air then comes out of the jets of the impellers to ensure a warm uniform air distribution. The filter, with an F5 efficiency grade, allows to block the fine dust present in the air. On request it is possible to integrate on machinery a HEPA H14 filter, with an efficiency of the 99.995%.



Filter cleaning sensor

A dedicated vacuum state monitors the filter clogging. An alarm message on the display will indicate that the filter is clogged, causing a cycle stop.



E version

AWD655-8XE, AWD655-8XEL and AWD655-15AE are without drying system: at the cycle end the machine automatically opens the door, partially, to dry the instruments with a natural air recirculation, saving on consumption. Read the user manual for more info and details.



(E.T.S.) Empty Total System

On request, AWD655-10, AWD655-10A and AWD655-15AE can be integrated with the E.T.S. system which, at the end of each cycle, automatically discharges the residual water from the pump, water storage tank and pipes, to ensure complete cleaning inside the machine.



HIBRID Hybrid heating system: electric steam

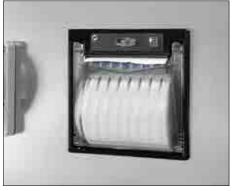
On request it is possible to integrate the machinery of a hybrid heating system: the water is heated both by the heating elements inside the tank and by the coil crossed by network steam. In this way it is possible to reduce program times and electricity consumption. Not available for AWD655-8 (and variants).



Wash chamber LED light



Washing chamber



Built-in printer



Water heating with boiler

On request it is possible to integrate the machinery of a boiler to accelerate the heating of demineralized water, while the machine is performing the previous washing phases.



Steam condenser system

The machine is equipped with an effective steam condenser system that acts to reduce the steam during drying phases.



Detergent storage compartment

In the AWD655-8L and AWD655-8XEL models, the detergent storage compartment is located in the side panel with a handle to allow access to it.



Chemical dosing control

The dosing system for chemical products is controlled by flowmeter. If the flowmeter doesn't perceive the passage of the liquid, after a few seconds the display will show an alarm that warns the operator of the nondispensing of the liquid in the wash chamber.



Chemical products level sensor

The machine is equipped with a sensor placed in the suction probe of chemical products, which warn the user if the liquid is running out through a warning that appears on the LCD display.



RS232 port connection



USB port

The 2 USB ports are located on the front:

- USB 1 port for PC USB, that allows to connect the machine to a PC for programming;
- USB 2 port for flash drive, that allows you to download the history of executed programs and alarms or for update the firmware and datasets.



Washer RePortal

On request, AWD655-8 (and variants) can be accompany with the software "Washer RePortal" (running on OS MS Windows), available under license. With this software it is possible to connect to the machine to manage the user PIN and download, via USB PenDrive, the cycles ran, that are saved on a special database, moreover it is possible to generate the cycle reports in PDF format and export them in CSV format, compatible with the most popular softwares (MS Excel, Open Office, etc. ...).



User pin management

On request, AWD655-8 (and variants) can be accompany with a firmware option that allows to manage a secure access to the programs by the users. An user name and password protection level limit the access to the device only to authorized personnel.



Hybrid heating system: electric + steam



Condenser



Detergents storage compartment



AWD655-8 | AWD655-8X | AWD655-8XE 165 lt

UNDER THE COUNTER

Machines equipped with a manual opening and closing door made in double tempered glass (AWD655-8) or stainless steel (AWD655-8X and AWD655-8XE), for laboratory glassware with 2 independent levels. AWD655-8 and AWD655-8X are equipped with a system that filter, electrically heat and force, with a powerfull blower, the air in the wash chamber and inside the hollow instruments, to obtain an excellent drying result. A wide range of racks, nozzles and accessories complete these machines, suitable to wash and dry a wide variety of laboratory glassware.







































AWD655-8



AWD655-8X Stainless steel door



AWD655-8XE Stainless steel door without drying system



Touch control system



USB memory



External printer



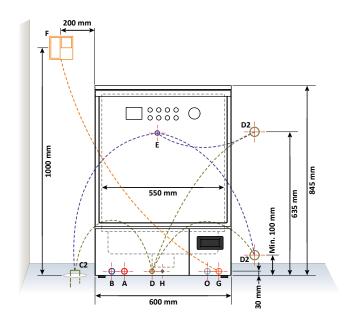
Filter

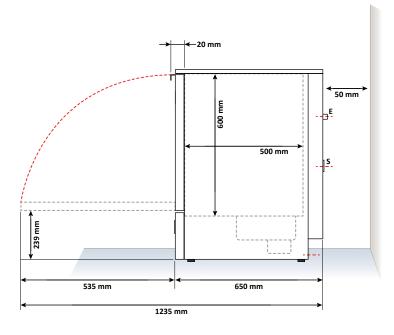


Wash chamber

TECHNICAL FEATURES	AWD655-8	AWD655-8X	AWD655-8XE
Code:	112502006	112502007	112502008
external dimension (WxDxH):	600x650x845 mm	600x650x845 mm	600x650x845 mm
Chamber dimension (WxDxH):	550x500x600 mm	550x500x600 mm	550x500x600 mm
Иах pump flow rate:	370 l/mn	370 l/mn	370 l/mn
Max drying fan flow rate with filter:	180 m³∕h	180 m³∕h	-
Max absorbed power:	6.2 kW	6.2 kW	6.2 kW
Max number of dosing pumps for chemicals with flowmeters:	4	4	4
Chemical tank capacity:	5 l	5 l	5 l
Device configuration options			
JSB SLAVE interface for PC:	Standard	Standard	Standard
JSB HOST interface for FLASH DRIVE:	Standard	Standard	Standard
nterface for external printer or data connection exchange:	Standard	Standard	Standard
ouch panel with color graphic display:	Standard	Standard	Standard
Certified according to standards 2006/42/EC, 2014/35/EU, 2011/65/EU, 2014/30/EU, EN61010-1, EN 61326-1:	Standard	Standard	Standard
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	Standard	Standard	Standard
Manual door with interlock:	Standard	Standard	Standard
orced air drying:	Standard	Standard	-
Nash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	Standard	Standard	Standard
Hot water connection:	Standard	Standard	Standard
Cold water connection:	Standard	Standard	Standard
HEPA H14 filter:	Optional	Optional	-
Conductivity probe:	Optional	Optional	Optional
Cold/hot water softener system:	Optional	Optional	Optional
Nash chamber LED light:	Optional	-	-
Demineralized water connection:	Optional	Optional	Optional
Spray arm monitor:	Optional	Optional	Optional
External printer:	Optional	Optional	Optional

The reference values are based on a voltage of 230 V between Phase and Neutral (between Phase and Phase in three-phase versions without Neutral) with a possible variance between -5 and +10%.





LEGEND

Α	Hot water connection- male-thread G ¾" (tube G ½")
В	Cold water connection- male-thread G ¾" (tube G ½")
C2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at floor)
D	Drain connection to the machine
D2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at wall)
Е	Output connection capacitor discharge machine

F	Omnipolar magneto switch with a circuit breaker
G	Electrical connection box
Н	Equipotential clamp
0	Deionized water connection- male-thread G ¾" (tube G ½")
S	Steam outlet exhaust

AWD655-8L | AWD655-8XEL 165 lt

SOTTOBANCO

Machines equipped with a manual opening and closing door made in double tempered glass (AWD655-8L) or stainless steel (AWD655-8XEL), for laboratory glassware with 2 independent levels. AWD655-8L is equipped with a system that filter, electrically heat and force, with a powerfull blower, the air in the wash chamber and inside the hollow instruments, to obtain an excellent drying result. A wide range of racks, nozzles and accessories complete these machines, suitable to wash and dry a wide variety of laboratory glassware.









































AWD655-8L



AWD655-8XEL Stainless steel door, without drying system



Touch control system



USB memory



Built-in printer



Filter



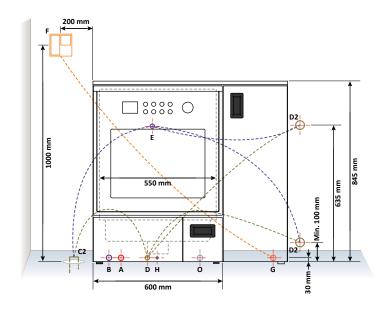
Chemicals

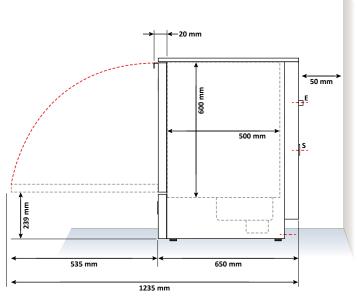


Wash chamber with multi filters

TECHNICAL FEATURES	AWD655-8L	AWD655-8XEL
Code:	112502009	112502010
External dimension (WxDxH):	900x650x845 mm	900x650x845 mm
Chamber dimension (WxDxH):	550x500x600 mm	550x500x600 mm
Max pump flow rate:	370 l/mn	370 l/mn
Max drying fan flow rate with filter:	180 m³∕h	-
Max absorbed power:	6.2 kW	6.2 kW
Max number of dosing pumps for chemicals with flowmeters:	4	4
Chemical tank capacity:	5 l	5 l
Device configuration options		
USB SLAVE interface for PC:	Standard	Standard
USB HOST interface for FLASH DRIVE:	Standard	Standard
nterface for external printer or data connection exchange:	Standard	Standard
Touch panel with color graphic display:	Standard	Standard
Certified according to standards 2006/42/EC, 2014/35/EU, 2011/65/EU, 2014/30/EU, EN61010-1, EN 61326-1:	Standard	Standard
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	Standard	Standard
Manual door with interlock:	Standard	Standard
Forced air drying:	Standard	-
Nash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	Standard	Standard
Hot water connection:	Standard	Standard
Cold water connection:	Standard	Standard
HEPA H14 filter:	Optional	-
Conductivity probe:	Optional	Optional
Cold/hot water softener system:	Optional	Optional
Nash chamber LED light:	Optional	-
Demineralized water connection:	Optional	Optional
Spray arm monitor:	Optional	Optional
Built- in printer installed in the side panel:	Optional	Optional

The reference values are based on a voltage of 230 V between Phase and Neutral (between Phase and Phase in three-phase versions without Neutral) with a possible variance between -5 and +10%.





LEGEND

Α	Hot water connection- male-thread G ¾" (tube G ½")
В	Cold water connection- male-thread G ¾" (tube G ½")
C2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at floor)
D	Drain connection to the machine
D2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at wall)
Е	Output connection capacitor discharge machine

F	Omnipolar magneto switch with a circuit breaker
G	Electrical connection box
Н	Equipotential clamp
0	Deionized water connection- male-thread G ¾" (tube G ½")
S	Steam outlet exhaust

AWD655-8 | AWD655-8X | AWD655-8XE **AWD655-8L | AWD655-8XEL**

RACKS

Image

Description

TL130 LAB. LOWER RACK

Washing rack positioned on the lower level, basic version

Suitable for washing the following glassware:









CANS



N° max





Usable

119905130

Code

Internal loading dimensions WxD: 500x485 mm. Rack external dimensions WxDxH: 525x502x148 mm.



TL139 LAB. LOWER RACK 195 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 195 Rack external dimensions WxDxH: 525x497x148 mm.

positions glassware nozzles 30 mm Ø 2,5 mm 57 mm Ø 2,5/4 mm 56 41 70 mm

Ø max

119905125

119905139



TL125 LAB. LOWER RACK 110 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 110

Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles
110	40 mm	Ø 2,5 mm
56	57 mm	Ø 2,5/4 mm
41	70 mm	All

119905140



TL140 LAB. LOWER RACK 72 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 72

. Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles
72	50 mm	Ø 2,5 mm
56	57 mm	Ø 2,5/4 mm
41	70 mm	All

119905141



TL141 LAB. LOWER RACK 56 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 56

Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles
56	57 mm	Ø 2,5/4 mm
41	70 mm	All

119905142



TL142 LAB. LOWER RACK 41 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 41

. Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles
41	70 mm	All

119905143



TL143 LAB. LOWER RACK 25 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 25

Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles
25	89 mm	All

Image

Description



TL144 LAB. LOWER RACK 18 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 18

Rack external dimensions WxDxH: 525x497x148 mm.

N° max position	Ø max s glassware	Usable nozzles
18	105 mm	All

119905145



TL145 LAB. LOWER RACK 16 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 16

Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
16	110 mm	All	

119905146



TL146 LAB. LOWER RACK 9 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 9

Rack external dimensions WxDxH: 525x497x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
9	150 mm	All	

119911019



TL019 LAB. LOWER RACK 48 POS. PIP.

Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 48

Suitable for washing the following glassware:



Rack external dimensions WxDxH: 525x497x313 mm.

Min pipette length	Max pipette length
250 mm	535 mm

119911020



TL020 LAB. LOWER RACK 2 CASS. PIP.

Pipettes washing rack positioned at the lower level, with 2 cassettes

Suitable for washing the following glassware:



Rack external dimensions WxDxH: 525x497x346 mm.

Min pipette length	Max pipette length
All	290 mm

119905126



TL126 LAB. UPPER RACK W/S.ARM

Washing rack positioned on the upper level, with spray arm Suitable for washing the following glassware:

















Internal loading dimensions WxD: 485x465 mm. Rack external dimensions WxDxH: 530x483x164 mm.

119905132



TL132 LAB. UPPER RACK 195 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 195

Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
195	30 mm	Ø 2,5 mm
56	57 mm	Ø 2,5/4 mm
36	74 mm	All

Code **Image**

Description

119905131



Washing rack positioned at the upper level, max. nozzles positionable: 110

Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
110	40 mm	Ø 2,5 mm
56	57 mm	Ø 2,5/4 mm
36	74 mm	All

119905134



TL134 LAB. UPPER RACK 72 POS.

Washing rack positioned at the upper level, max. nozzles **positionable: 72**Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
72	50 mm	Ø 2,5 mm
56	57 mm	Ø 2,5/4 mm
36	74 mm	All

119905135



TL135 LAB. UPPER RACK 56 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 56

Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
56	57 mm	Ø 2,5/4 mm
36	74 mm	All

119905136



TL136 LAB. UPPER RACK 36 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 36

Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
36	74 mm	All

119905137



TL137 LAB. UPPER RACK 25 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 25

Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
25	90 mm	All

119905138



TL138 LAB. UPPER RACK 18 POS.

Washing rack positioned at the upper level, max. nozzles

positionable: 18
Rack external dimensions WxDxH: 530x483x164 mm.

N° max positions	Ø max glassware	Usable nozzles
18	105 mm	All

D00570300



A126 RAISING GRID

Raising grid suitable for washing racks positioned at the upper level Grid external dimensions WxDxH: 477x456x51 mm.

119904062



A136 STAINLESS STEEL STAND AWD655-8

Stand for AWD655-8 and AWD655-8XE provide an ergonomics height of 150 cm, when the machine is not installed undercounter. Suitable for use as a detergent storage compartment

Stand external dimension WxDxH: 600x585x600 mm.



A137 STAINLESS STEEL STAND AWD655-8L

Stand for AWD655-8L and AWD655-8XEL provide an ergonomics height of 150 cm, when the machine is not installed undercounter. Suitable for use as a detergent storage compartment Stand external dimension WxDxH: 900x585x600 mm.



AWD655-10 265 lt

MANUAL DOOR

Machine equipped with a manual opening and closing door made in double tempered glass, for laboratory glassware with 4 independent levels. The upper levels are removable for washing large materials. Is equipped with a system that filter, electrically heat and force, with a powerfull blower, the air in the wash chamber and inside the hollow instruments, to obtain an excellent drying result. A wide range of racks, nozzles and accessories complete these machines, suitable to wash and dry a wide variety of laboratory glassware.









































AWD655-10



Touch control system



Built-in printer



Filter



Detergents

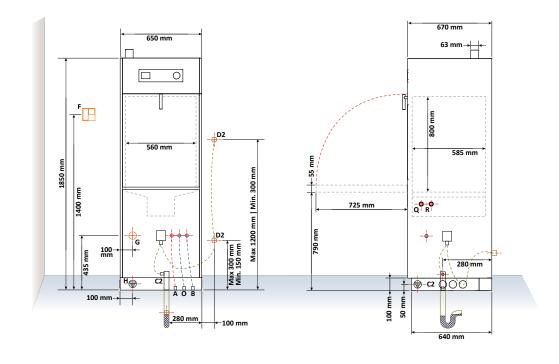


Chamber with spray arms

TECHNICAL FEATURES AWD655-10

Code:	112502011
External dimension (WxDxH):	650x670x1850 mm
Chamber dimension (WxDxH):	560x585x800 mm
Max pump flow rate:	626 l/mn
Max drying fan flow rate with filter:	150 m³∕h
Max absorbed power:	11,4 kW
Max number of dosing pumps for chemicals with flowmeters:	4
Chemical tank capacity:	5 l
Device configuration options	
USB SLAVE interface for PC:	Standard
USB HOST interface for FLASH DRIVE:	Standard
Interface for external printer or data connection exchange:	Standard
Touch panel with color graphic display:	Standard
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	Standard
Manual door with interlock:	Standard
Forced air drying:	Standard
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	Standard
Hot water connection:	Standard
Cold water connection:	Standard
HEPA H14 filter:	Optional
Main switch ON/OFF. In accordance with the electrical connection:	Optional
(E.T.S.) Empty Total System:	Optional
Hybrid heating system: electric steam:	Optional
Demi water heating with boiler:	Optional
Discharge pump:	Optional
Conductivity probe:	Optional
Water softener system:	Optional
Wash chamber LED light:	Optional
Demineralized water connection:	Optional
Spray arm monitor:	Optional
Built-in printer frontally installed:	Optional

The reference values are based on a voltage of 230 V between Phase and Neutral (between Phase and Phase in three-phase versions without Neutral) with a possible variance between -5 and +10%.



LEGENID

LEGEND		
Hot water connection- male-thread G $\frac{1}{4}$ " (tube G $\frac{1}{2}$ ")		
Cold water connection- male-thread G 3 " (tube G 3 ")		
Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at floor)		
Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at wall)		
Omnipolar magneto switch with a circuit breaker		
Electrical connection box		
Equipotential clamp		
Deionized water connection- male-thread G $\%$ " (tube G $\%$ ")		
Steam connection G da ½" (inlet)		
Steam connection G da ½" (outlet)		

AWD655-10A 265 lt

AUTOMATIC DOOR

Machine equipped with an automatic sliding door, in double tempered glass, for laboratory glassware with 4 independent levels. The upper levels are removable for washing large materials. Is equipped with a system that filter, electrically heat and force, with a powerfull blower, the air in the wash chamber and inside the hollow instruments, to obtain an excellent drying result. A wide range of racks, nozzles and accessories complete these machines, suitable to wash and dry a wide variety of laboratory glassware.





































AWD655-10A



Touch control system



Wash chamber LED light



Built-in printer



Filter



Detergents

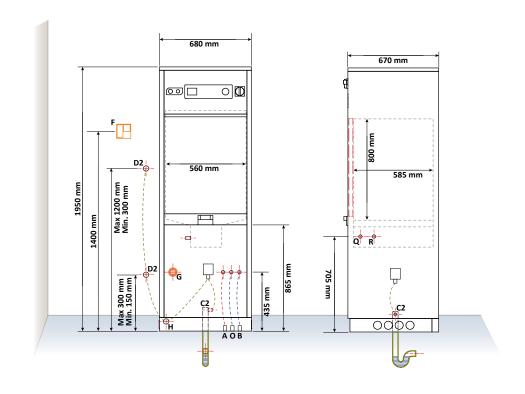


Chamber with spray arms

TECHNICAL FEATURES AWD655-10A

Code:	112502201
External dimension (WxDxH):	680x670x1950 mm
Chamber dimension (WxDxH):	560x585x800 mm
Max pump flow rate:	626 l/mn
Max drying fan flow rate with filter:	150 m³/h
Max absorbed power:	11,4 kW
Max number of dosing pumps for chemicals with flowmeters:	4
Chemical tank capacity:	5
Device configuration options	
USB SLAVE interface for PC:	Standard
USB HOST interface for FLASH DRIVE:	Standard
Interface for external printer or data connection exchange:	Standard
Touch panel with color graphic display:	Standard
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	Standard
Automatic door:	Standard
Forced air drying:	Standard
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	Standard
Hot water connection:	Standard
Cold water connection:	Standard
HEPA H14 filter:	Optional
Main switch ON/OFF. In accordance with the electrical connection:	Optional
(E.T.S.) Empty Total System:	Optional
Hybrid heating system: electric steam:	Optional
Demi water heating with boiler:	Optional
Discharge pump:	Optional
Conductivity probe:	Optional
Water softener system:	Optional
Wash chamber LED light:	Optional
Demineralized water connection:	Optional
Spray arm monitor:	Optional
Built-in printer frontally installed:	Optional

The reference values are based on a voltage of 230 V between Phase and Neutral (between Phase and Phase in three-phase versions without Neutral) with a possible variance between -5 and +10%.



LEGEND

LEGEND		
Hot water connection- male-thread G $\%$ " (tube G $\%$ ")		
Cold water connection- male-thread G 3 " (tube G 3 ")		
Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at floor)		
Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at wall)		
Omnipolar magneto switch with a circuit breaker		
Electrical connection box		
Equipotential clamp		
Deionized water connection- male-thread G $\%$ " (tube G $\%$ ")		
Steam connection G da ½" (inlet)		
Steam connection G da ½" (outlet)		

AWD655-10 | AWD655-10A

RACKS

Code

119905133

Image

Description

TL133 LAB. LOWER RACK

Washing rack positioned on the lower level, basic version Suitable for washing the following glassware:

















Interna

Internal loading dimensions WxD: 495x545 mm. Rack external dimensions WxDxH: 530x568x148 mm.





TL127 LAB. LOWER RACK 110 POS.

Washing rack positioned at the lower level, max. nozzles positionable: ${\bf 110}$

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles
110	40 mm	Ø 2,5 mm
81	52 mm	Ø 2,5/4 mm
42	70 mm	All





TL011 LAB. LOWER RACK 81 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 81

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles
81	52 mm	Ø 2,5/4 mm
42	70 mm	All

119911012



TL012 LAB. LOWER RACK 56 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 56

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles
56	60 mm	Ø 2,5/4 mm
42	70 mm	All

119911013



TL013 LAB. LOWER RACK 42 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 42

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
42	70 mm	All	

119911014



TL014 LAB. LOWER RACK 36 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 36

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
36	80 mm	All	

Image

Description

119911015



TL015 LAB. LOWER RACK 20 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 20

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles
20	100 mm	All

119911016



TL016 LAB. LOWER RACK 16 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 16 Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
16	110 mm	All	

119911017



TL017 LAB. LOWER RACK 12 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 12

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
12	130 mm	All	

119911018



TL018 LAB. LOWER RACK 9 POS.

Washing rack positioned at the lower level, max. nozzles positionable: 9

Rack external dimensions WxDxH: 530x568x148 mm.

N° max positions	Ø max glassware	Usable nozzles	
9	160 mm	All	

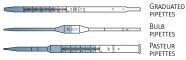
119911021



TL021 LAB. LOWER RACK 56 POS. PIP.

Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 56

Suitable for washing the following glassware:



Rack external dimensions WxDxH: 525x497x313 mm.

Min pipette length	Max pipette length
250 mm	760 mm

119911022



TL022 LAB. LOWER RACK 2 CASS. PIP.

Pipettes washing rack positioned on the lower level, with 2 cassettes

Suitable for washing the following glassware:



Rack external dimensions WxDxH: 525x497x540 mm.

Min pipette length	Max pipette length
All	520 mm

119911023



TL023 LAB. LOWER RACK 3 CASS. PIP.

Pipettes washing rack positioned on the lower level, with 3 cassettes

Suitable for washing the following glassware:

[मोमक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रमामक्रम	GRADUATED PIPETTES
8 28	BULB PIPETTES
	PASTEUR PIPETTES

Rack external dimensions WxDxH: 525x497x540 mm.

Min pipette length	Max pipette length
All	520 mm

Code

Image

Description

TL128 LAB. INT. RACK W/S.ARM

Washing rack positioned at intermediate level, with spray arm

Suitable for washing the following glassware:

















Internal loading dimensions WxD: 485x530 mm.

Rack external dimensions WxDxH: 530x550x95 mm.

TL129 LAB. UPPER RACK W/S.ARM

Washing rack positioned on the upper level, with spray arm Suitable for washing the following glassware:



BREAKERS













119905129



Internal loading dimensions WxD: 485x530 mm.

Rack external dimensions WxDxH: 530x550x164 mm.

119911003



TL003 LAB. UPPER RACK 169 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 169

Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles
169	32 mm	Ø 2,5 mm
81	52 mm	Ø 2,5/4 mm
42	70 mm	All

119911004



TL004 LAB. UPPER RACK 110 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 110

Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles
110	40 mm	Ø 2,5 mm
81	52 mm	Ø 2,5/4 mm
42	70 mm	All

119911005



TL005 LAB. UPPER RACK 81 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 81

Rack external dimensions WxDxH: 530x550x164 mm.

	Usable nozzles
52 mm	Ø 2,5/4 mm
70 mm	All
	52 mm

119911006



TL006 LAB. UPPER RACK 56 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 56 Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles
56	60 mm	Ø 2,5/4 mm
42	70 mm	All

119911007



TL007 LAB. UPPER RACK 42 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 42

. Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles	
42	70 mm	All	

Code

Image

Description

119911008



TL008 LAB. UPPER RACK 36 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 36

Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles	
36	80 mm	All	

119911009



TL009 LAB. UPPER RACK 20 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 20
Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions	Ø max glassware	Usable nozzles
20	100 mm	All

119911010



TL010 LAB. UPPER RACK 16 POS.

Washing rack positioned at the upper level, max. nozzles positionable: 16

Rack external dimensions WxDxH: 530x550x164 mm.

N° max positions		Usable nozzles
16	110 mm	All

D00604800



A117 RAISING GRID

Raising grid suitable for washing racks positioned at the upper levels Grid external dimensions WxDxH: 477x522x51 mm.

18009500



A049 FIX. H. TRANSF. TROLLEY AWD655-10

Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 750x628x880 mm.

18009052



A020 FIX. H. TRANSF. TROLLEY AWD655-10A

Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 750x623x875 mm.

AWD655-15AE 450 lt

AUTOMATIC DOOR

Machine equipped with an automatic sliding door, in double tempered glass, for laboratory glassware with 4 independent levels. The upper levels are removable for washing large materials. On request, AWD655-10AE can be equipped with a system that filter, electrically heat and force, with a powerfull blower, the air in the wash chamber and inside the hollow instruments. A wide range of racks, nozzles and accessories complete AWD655-15AE, suitable to wash and dry a wide variety of laboratory glassware.



































AWD655-15AE Without drying system



Touch control system



Built-in printer



Detergents



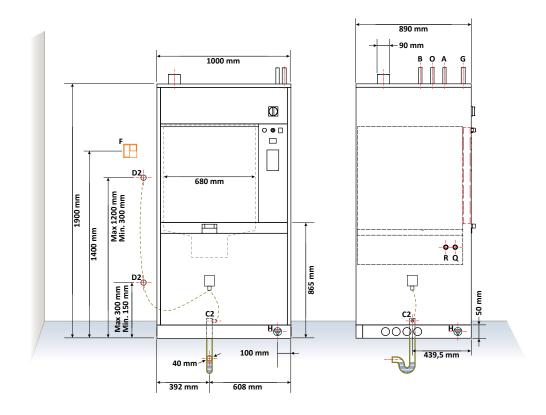
Chamber with spray arms

TECHNICAL FEATURES AWD655-15AE

Code:

External dimension (WxDxH):	1000x890x1900 mm
Chamber dimension (WxDxH):	680x790x810 mm
Max pump flow rate:	626 l/mn
Max absorbed power:	19,6 kW
Max number of dosing pumps for chemicals with flowmeters:	5
Chemical tank capacity:	5
Device configuration options	
USB SLAVE interface for PC:	Standard
USB HOST interface for FLASH DRIVE:	Standard
Interface for external printer or data connection exchange:	Standard
Touch panel with color graphic display:	Standard
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	Standard
Automatic door:	Standard
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	Standard
Hot water connection:	Standard
Cold water connection:	Standard
Forced air drying:	Optional
HEPA H14 filter:	Optional
Main switch ON/OFF. In accordance with the electrical connection:	Optional
(E.T.S.) Empty Total System:	Optional
Hybrid heating system: electric steam:	Optional
Demi water heating with boiler:	Optional
Discharge pump:	Optional
Conductivity probe:	Optional
Water softener system:	Optional
Wash chamber LED light:	Optional
Demineralized water connection:	Optional
Spray arm monitor:	Optional
Built-in printer frontally installed:	Optional

 $The \ reference \ values \ are \ based \ on \ a \ voltage \ of \ 230 \ V \ between \ Phase \ and \ Neutral \ (between \ Phase \ and \ Phase \ in \ three-phase \ versions \ without \ Neutral) \ with \ a \ possible \ variance \ between \ -5 \ and \ +10\%.$



LEGEND

112502202

LEGEND		
А	Hot water connection- male-thread G $\%$ " (tube G $\%$ ")	
В	Cold water connection- male-thread G $\mbox{\it \chi}''$ (tube G $\mbox{\it \chi}''$)	
C2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at floor)	
D2	Drain Ø1" ½ (DN40)- hose connection 1" (25mm) (at wall)	
F	Omnipolar magneto switch with a circuit breaker	
G	Electrical connection box	
Н	Equipotential clamp	
0	Deionized water connection- male-thread G $\%$ " (tube G $\%$ ")	
Q	Steam connection G da ½" (inlet)	
S	Steam connection G da ½" (outlet)	

AWD655-15AE

RACKS

Code Image

119911025

Description

TL025 LAB. LOWER RACK

Washing rack positioned on the lower level, basic version Suitable for washing the following glassware:



















Internal loading dimensions WxD: 600x750 mm. Rack external dimensions WxDxH: 650x786x109 mm.

TL024 LAB. RACK W/S.ARM

Washing rack can be positioned on all levels except the lower one, with spray arm Suitable for washing the following glassware:



















Internal loading dimensions WxD: 600x750 mm. Rack external dimensions WxDxH: 650x770x109 mm.

119911027

119911024



TL027 LAB. RACK 330 POS.

Washing rack, max. nozzles positionable: 330 Rack external dimensions WxDxH: 650x770x109 mm.

N° max positions	Ø max glassware	Usable nozzles
330	25 mm	Ø 2,5 mm
72	75 mm	All

119911028



TL028 LAB. RACK 72 POS.

Washing rack, max. nozzles positionable: 72Rack external dimensions WxDxH: 650x770x109 mm.

N° max positions	Ø max glassware	Usable nozzles	
72	75 mm	All	

119911029



TL029 LAB. RACK 56 POS.

Washing rack, max. nozzles positionable: 56 Rack external dimensions WxDxH: 650x770x109 mm.

N° max positions	Ø max glassware	Usable nozzles	
56	84 mm	All	

119911030



TL030 LAB. RACK 48 POS.

Washing rack, max. nozzles positionable: 48
Rack external dimensions WxDxH: 650x770x109 mm.

	max sitions	Ø max glassware	Usable nozzles	
48		90 mm	All	

Code

Image

Description

119911031



TL031 LAB. RACK 18 POS.

Washing rack, max. nozzles positionable: 18
Rack external dimensions WxDxH: 650x770x109 mm.

N° max positions	Ø max glassware	Usable nozzles	
18	150 mm	All	

119911032



TL032 LAB. RACK 10 POS.

Washing rack, max. nozzles positionable: 10 Rack external dimensions WxDxH: 650x770x109 mm.

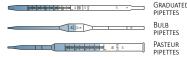
N° max position	Ø max s glassware	Usable nozzles
10	190 mm	All

119911026



TL026 LAB. LOWER RACK 88 POS. PIP.

Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 88
Suitable for washing the following glassware:



Rack external dimensions WxDxH: 630x785x355 mm.

Min pipette length Max pipette length 250 mm 700 mm

18008691



A016 FIX. H. TRANSF. TROLLEY AWD655-15A

Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 925x723x875 mm.

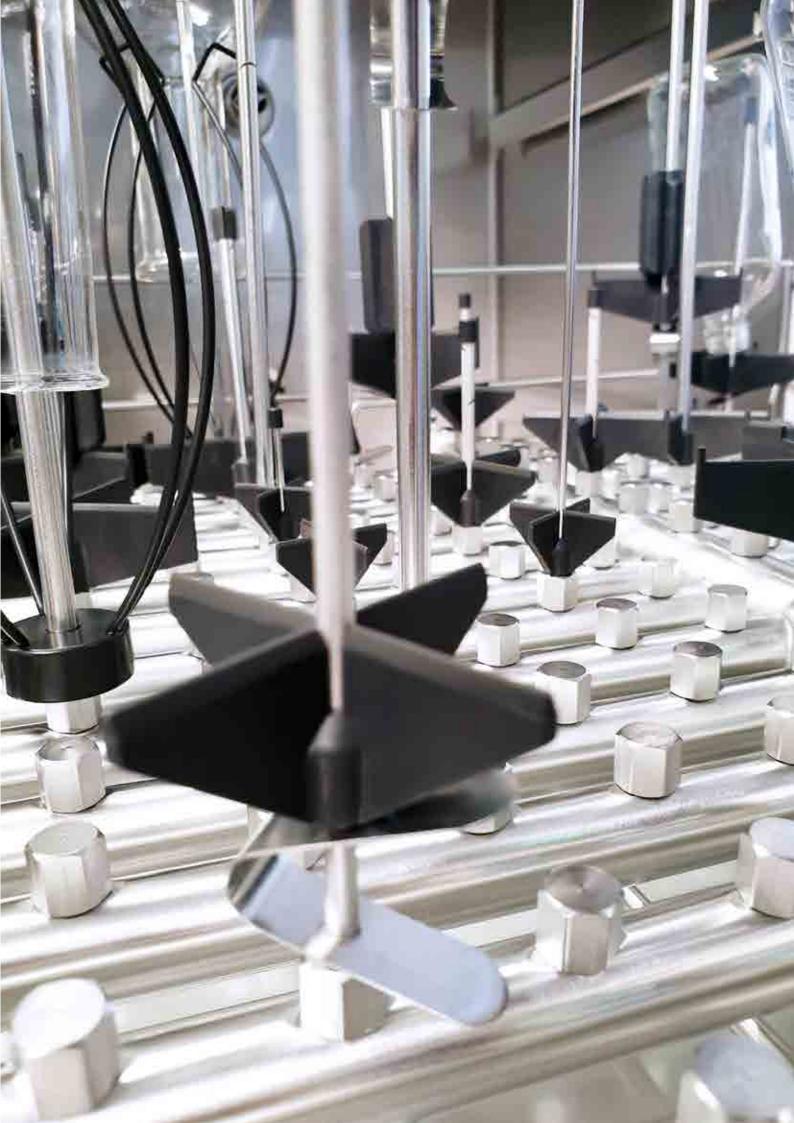
AWD655 LINE

NOZZLES

Code	Image	Description	Additional description
P00001002	ψ	A090 NOZZLE Ø6 INT. 3-FLEX H=120 External dimensions WxH: 75x140 mm.	NOZZLE WITH FLEXIBLE INTERNAL - Ø 6 mm
P00001006	*	A091 NOZZLE Ø6 INT. 3-FLEX H=230 External dimensions WxH: 75x230 mm.	NOZZLE Ø 6 mm with 3 flexible internal arms to block the glassware during washing, avoiding possible movements, falls and breakage of the glassware Suitable for washing the following glassware:
P00001007	*	A092 NOZZLE Ø6 INT. 3-FLEX H=280 External dimensions WxH: 75x280 mm.	ERLENMEYER WIDE NECK NARROW NECK WEIGHING GRADUATED IMHOFF FLASKS WIDE BOTTLES BOTTLES CYLINDERS CONES NECK
P00001008	*	A093 NOZZLE Ø6 C H=120 External dimensions WxH: 75x120 mm.	
P00001009	*	A094 NOZZLE Ø6 C+S H=140 External dimensions WxH: 75x140 mm.	
P00001010	*	A095 NOZZLE Ø6 C+S H=180 External dimensions WxH: 75x180 mm.	STANDARD NOZZLES - Ø 6 mm Suitable for washing the following glassware:
P00001011	×	A096 NOZZLE Ø6 C+S H=230 External dimensions WxH: 75x230 mm.	HIGH CAPACITY GRADUATED FLASKS CYLINDERS
P00001012	¥	A097 NOZZLE Ø6 C+S H=280 External dimensions WxH: 75x280 mm.	

Code	Image	Description	Additional description
P00001013	*	A098 NOZZLE Ø6 C+INT. C.28 H=120 External dimensions WxH: 75x120 mm.	
P00001014	*	A099 NOZZLE Ø6 C+S+INT. C.28 H=140 External dimensions WxH: 75x140 mm.	
P00001015	*	A100 NOZZLE Ø6 C+S+INT. C.28 H=180 External dimensions WxH: 75x180 mm.	NOZZLE WITH RIGID INTERNAL - Ø 6 mm Nozzles Ø 6 mm with rigid bottle holder to block the glassware during washing, avoiding possible movements, falls and breakages of the glassware Suitable for washing the following glassware:
P00001016	*	A101 NOZZLE Ø6 C+S+INT. C.28 H=230 External dimensions WxH: 75x230 mm.	ERLENMEYER FLASKS WIDE BOTTLES NECK BOTTLES
P00001017	*	A102 NOZZLE Ø6 C+S+INT. C.28 H=280 External dimensions WxH: 75x280 mm.	
P00001018		A103 NOZZLE Ø6 EXT. 3-FLEX H=180 External dimensions WxH: 73,5 (flex) x180 mm.	NOZZLE WITH FLEXIBLE EXTERNAL - Ø 6 mm Nozzles Ø 6 mm with 3 flexible external arms to block the glassware
P00001019		A104 NOZZLE Ø6 EXT. 3-FLEX H=230 External dimensions WxH: 73,5 (flex) x230 mm.	during washing, avoiding possible movements, falls and breakages of the glassware Suitable for washing the following glassware:
P00001020		A105 NOZZLE Ø6 EXT. 3-FLEX H=280 External dimensions WxH: 73,5 (flex) x280 mm.	ERLENMEYER FLAT OR ROUND FUNNELS GRADUATED FLASKS NAR- BOTTOM FLASK ROW NECK NARROW NECK CYLINDERS

Code	Image	Description	Additional description
P00001021	*	A106 NOZZLE Ø4 C H=76 External dimensions WxH: 54x76 mm.	
P00001022	*	A107 NOZZLE Ø4 C+S H=111 External dimensions WxH: 54x111 mm.	STANDARD NOZZLES - Ø 4 mm Suitable for washing the following glassware:
P00001023	¥	A108 NOZZLE Ø4 C+S H=176 External dimensions WxH: 54x176 mm.	HIGH CAPACITY GRADUATED FLASKS CYLINDERS
P00001024		A109 NOZZLE Ø2.5 P H=81 External dimensions WxH: 15,5x81 mm.	
P00001025		A110 NOZZLE Ø2.5 P+S H=81 External dimensions WxH: 15,5x81 mm.	
P00001026	*	A111 NOZZLE Ø2.5 C H=51 External dimensions WxH: 32x51 mm.	STANDARD OR WITH RIGID CAP NOZZLES - Ø 2.5 mm Nozzles Ø 2.5 mm standard or with internal rigid cap for small glassworks. To block the glassware during washing, avoiding possible movements, falls and breakages of the glassware Suitable for washing the following glassware:
P00001026	*	A112 NOZZLE Ø2.5 C H=81 External dimensions WxH: 32x81 mm.	TEST TUBES LOW CAPACITY CENTRIFUGE TUBES
P00001026		A113 NOZZLE Ø2.5 C H=156 External dimensions WxH: 32x156 mm.	



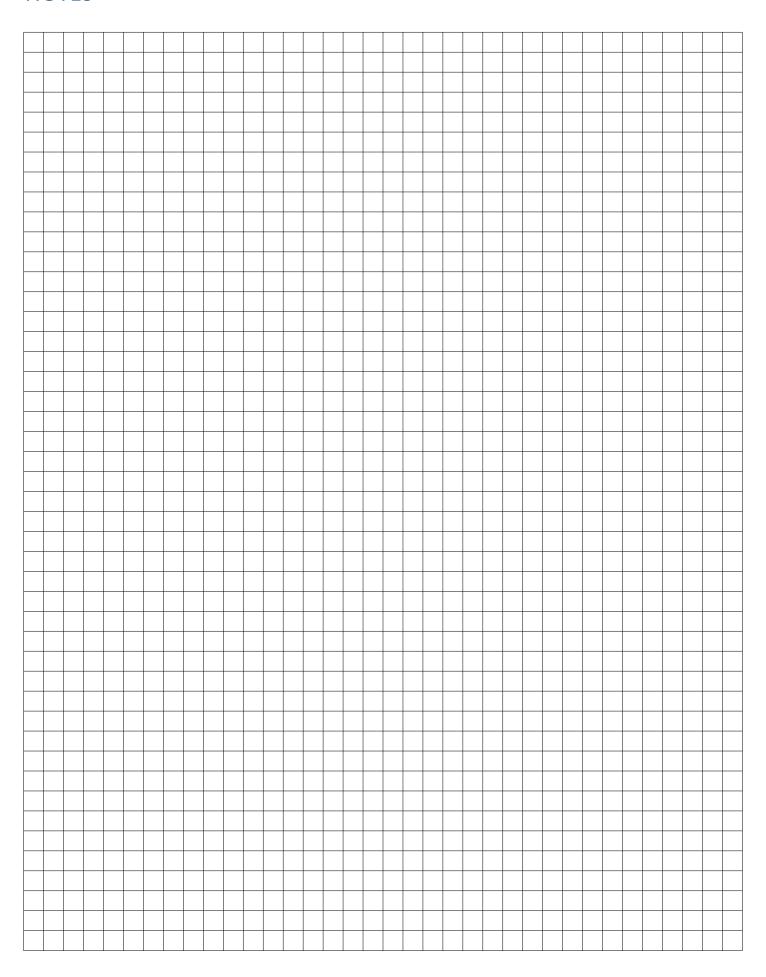
AWD655 LINE

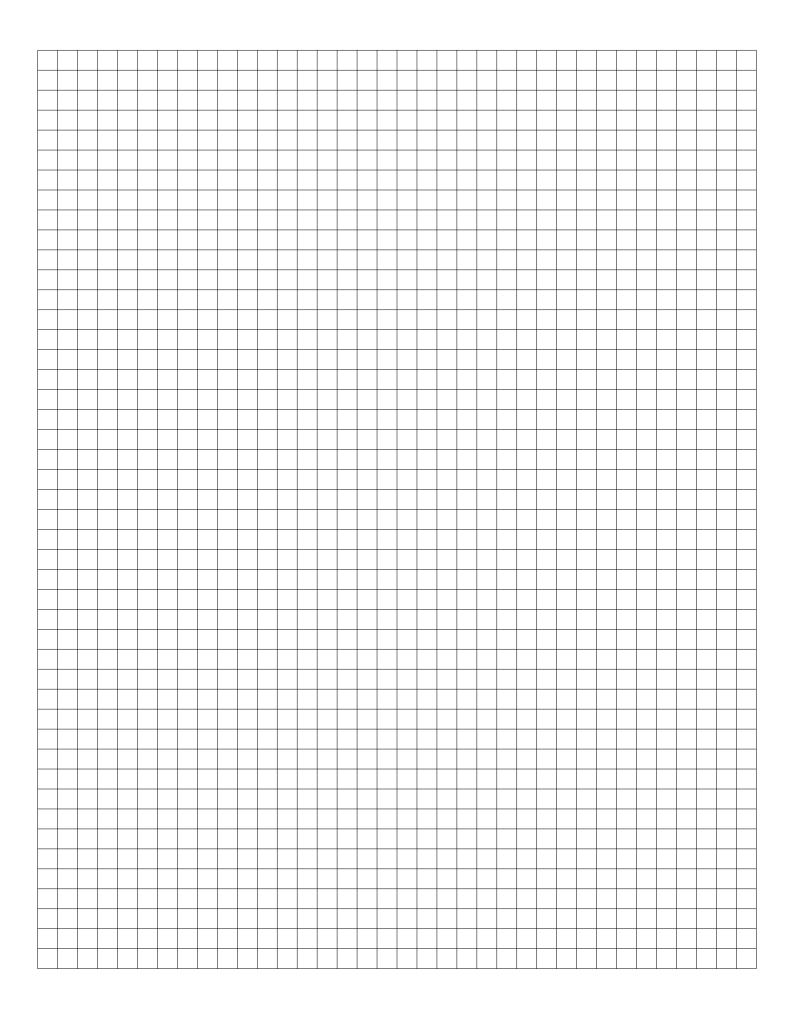
ACCESSORIES

Code	Image	Description
D00559900		A114 CAP SCREW M8x1 Hexagon head screw with M8x1 thread To be screwed to the positions of the rack where the nozzles are not placed, to allow the passage of the washing water only in the occupied positions.
119905072		A130 TEST TUBES BASKET H=160 Test tube basket Use up to 4 baskets per cart. Suitable for washing the following glassware: TEST TUBES Maximum tube height: 150 mm.
D00285200		A032 INSERT FOR PETRI DISHES Insert capacity: 30 pcs. Petri dishes. Suitable for washing the following glassware: Petri dishes External dimensions WxDxH: 470x240x77 mm.
D00570100		A115 BOTT. RIGID SUPPORT Ø33 Bottle holder Ø 33 mm for nozzles with rigid inside Ø 6 mm
D00570300		A116 BOTT. RIGID SUPPORT Ø45 Bottle holder Ø 45 mm for nozzles with rigid inside Ø 6 mm
467010017		A128 ADAP. MALE LUER TO M8X1 MALE THREAD Luer-Lock attachment adapter
467010018		A129 PVDF FEMALE LUER TO 3/16" HOSE BARB Hose holder for Luer-Lock attachment
467010019		A131 PVDF MALE LUER TO 3/16" HOSE BARB Hose holder for Luer-Lock attachment

Code	Image	Description
467010020		A132 PVDF FEMALE LUER TO 1/4" HOSE BARB Hose holder for Luer-Lock attachment
467010021		A133 PVDF MALE LUER TO 1/4" HOSE BARB Hose holder for Luer-Lock attachment
467010022		A134 PVDF ELBOW FITTING 1/4" HOSE BARB Hose holder for Luer-Lock attachment

NOTES





HOSPITAL

CSSD

RETIREMENT HOMES

DRYING CABINETS

DENTAL

LABORATORY

VETERINARY

FORNITURE



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