

# TIVA LAB

## High-End Glassware Washer for Laboratories

Bringing **over 95 years of Professionalism**  
into your laboratory



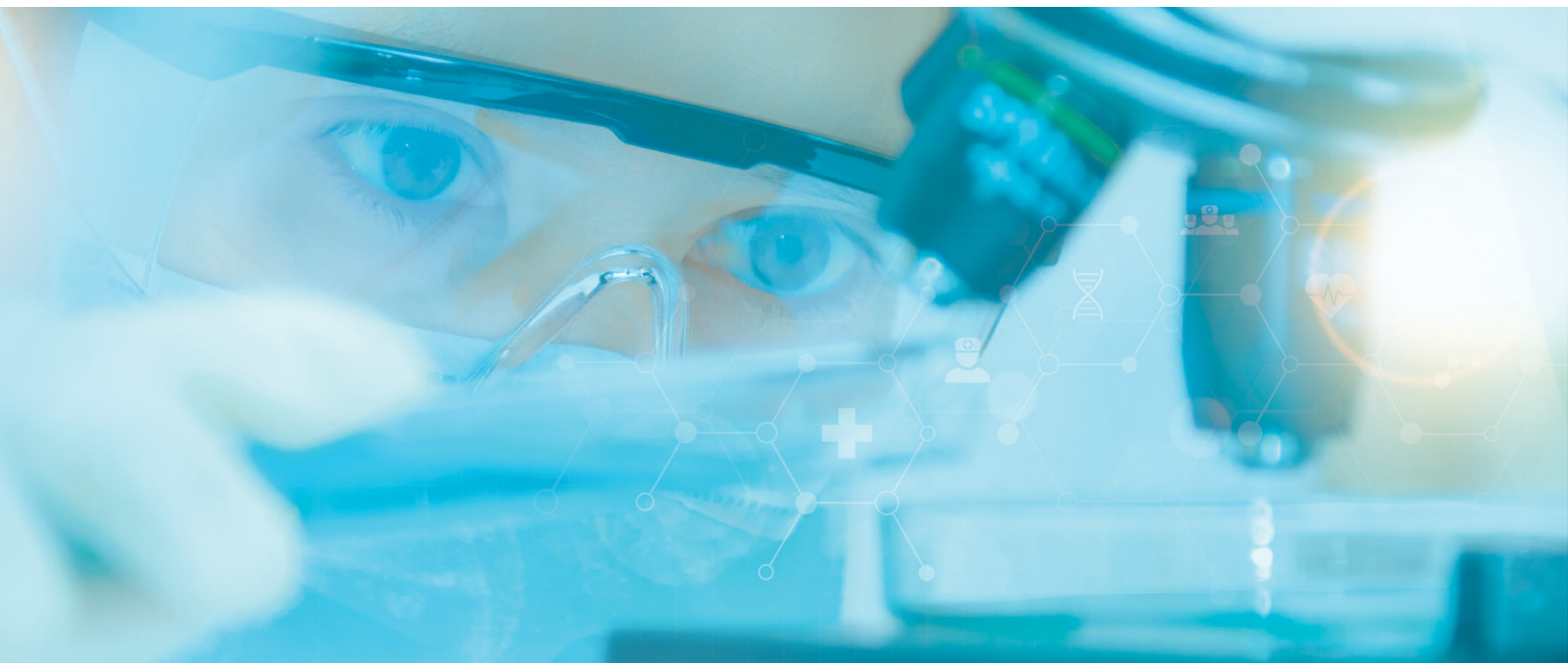
Laboratory



## Made with Over **95 Years of Experience**

Tuttnauer's sterilization and infection control solutions are trusted by **laboratories**, hospitals, and clinics in more than 140 countries. For over 95 years Tuttnauer has been passionate about delivering a complete

sterilization solution to the healthcare and life science industries. We are proud to have installed over 350,000 sterilization and infection control products around the world.



## Welcome to the **TIVA** Lab Washer Series

Complete sterile processing solutions

The TIVA product line corresponds with Tuttnauer's vision, to provide complete end-to-end solutions for reprocessing needs to all the industries it serves, in particular for laboratories. Incorporating a glassware washer in your lab provides for maximum flexibility, sustainability, and an efficient driven solution for glassware treatment.

Safe and efficient **cleaning, decontamination and drying** of laboratory glassware.

Tuttnauer high disinfection thermal washers provide effective decontamination, washing and drying for a wide range of different glassware and other materials which are commonly used in laboratories.

Supported by a wide range of racks, nozzles, spindles and accessories.

Designed to simplify your work by eliminating manual washing and reducing your manpower. Ensuring the safety of your patients by providing consistent quality washing cycles at all time and ensuring the safety of your staff by eliminating risks of exposure to potentially harmful aerosols.



## Intuitive User Experience

- A full control and all-in-one operation from a single touch panel with color display
- Alarm-check system for quick and easy operation
- Washer RePortal SW
- User PIN access management (optional)
- Graphical report of washing phases including time and temperature
- Spray Arm monitoring for continuous washing validation (optional)



## Advanced Control and Warning System

- Microcontroller manages data from multiple sensors to support smooth, efficient and reliable operation
- Chemical dosing control
- Real-time indication of water level and quality



## Easy to Clean and Maintain Process Monitoring

- The only washer with a water-emptying total system (ETS)
- Easy-to-remove and easy-to-wash spray arms
- Long-lasting components require minimal servicing



## Premium Performance

- Up to 40 washing programs. Preset and customized
- Water quality monitoring
- Validation of every cycle using continuous water pressure monitoring
- Quick drying phases due to a steam condenser system
- Uniform forced air drying, dust blocking (HEPA filter is optional)
- Accelerated heating time by using an integrated boiler (optional)
- Reduced program times and electricity consumption using hybrid heating system (optional)
- Water softener system (optional)
- Conductivity probe (optional)



## Highest Design Standards

State of the art quality

- Chemical-resistant double-layered glass
- AISI 316L Stainless Steel
- Double-layered tempered glass door for visual monitoring

# TIVA8-1ML | TIVA8-X-1ML | TIVA8-XE-1ML

## Under-Counter Washer

Chamber Capacity - 165 Liter

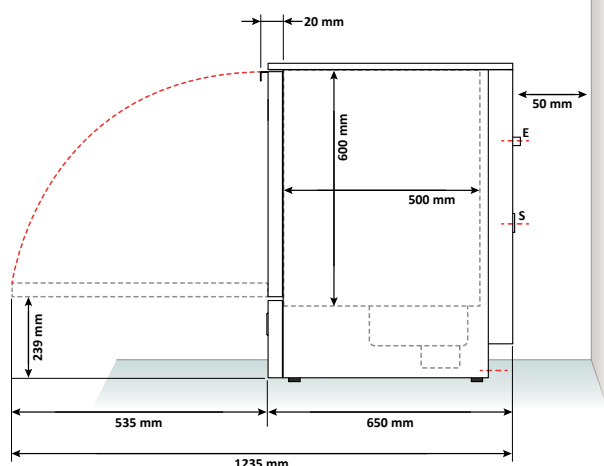
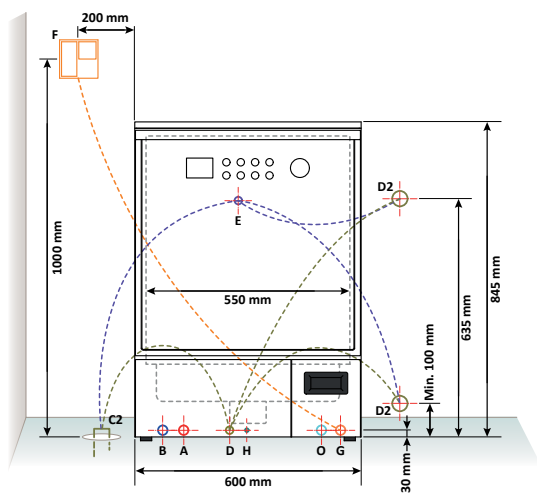
Door resistant to aggressive chemicals Ergonomic handle  
Durable and transparent glass door (TIVA8-1ML) or  
Stainless steel (TIVA8-X-1ML | TIVA8-XE-1ML)

A wide range of racks, nozzles and accessories complete  
these machines, suitable to wash and dry a wide variety of  
laboratory glassware.



Stainless steel door

Dimensions	TIVA8-1ML	TIVA8-X-1ML	TIVA8-XE-1ML
External dimension (WxDxH) mm	600x650x845	600x650x845	600x650x845
Chamber dimension (WxDxH) mm	550x500x600	550x500x600	550x500x600



## Legend

<b>A</b> Hot water connection - male-thread G 3/4" (tube G 1/2")	<b>F</b> Omnipolar magneto switch with a circuit breaker
<b>B</b> Cold water connection - male-thread G 3/4" (tube G 1/2")	<b>G</b> Electrical connection box
<b>C2</b> Drain Ø1" 1/2 (DN40) - hose connection 1" (25mm) (at floor)	<b>H</b> Equipotential clamp
<b>D</b> Drain connection to the machine	<b>O</b> Deionized water connection - male-thread G 3/4" (tube G 1/2")
<b>D2</b> Drain Ø1" 1/2 (DN40) - hose connection 1" (25mm) (at wall)	<b>S</b> Steam outlet exhaust
<b>E</b> Output connection capacitor discharge machine	

# TIVA8-WD-1ML | TIVA8-WD-XE-1ML

## Under-Counter Washer

Chamber Capacity - 165 Liter

Door resistant to aggressive chemicals - Ergonomic handle.  
Durable and transparent glass door (TIVA8-WD-1ML) or  
Stainless steel (TIVA8-WD-XE-1ML).

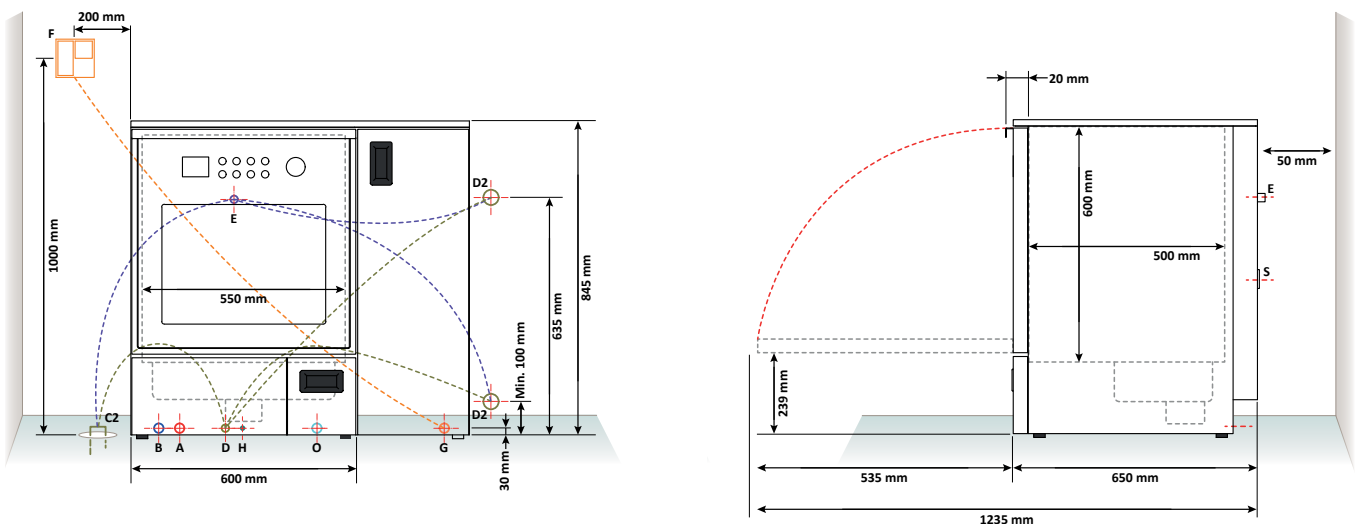
A wide range of racks, nozzles and accessories complete these machines, suitable to wash and dry a wide variety of laboratory glassware.

### Detergent storage compartment

Located in the side panel with a handle to allow access to it.



Dimensions	TIVA8-WD-1ML	TIVA8-WD-XE-1ML
External dimension (WxDxH) mm	900x650x845	900x650x845
Chamber dimension (WxDxH) mm	550x500x600	550x500x600



## Legend

<b>A</b> Hot water connection - male-thread G 3/4" (tube G 1/2")	<b>F</b> Omnipolar magneto switch with a circuit breaker
<b>B</b> Cold water connection - male-thread G 3/4" (tube G 1/2")	<b>G</b> Electrical connection box
<b>C2</b> Drain Ø1" 1/2 (DN40) - hose connection 1" (25mm) (at floor)	<b>H</b> Equipotential clamp
<b>D</b> Drain connection to the machine	<b>O</b> Deionized water connection - male-thread G 3/4" (tube G 1/2")
<b>D2</b> Drain Ø1" 1/2 (DN40) - hose connection 1" (25mm) (at wall)	<b>S</b> Steam outlet exhaust
<b>E</b> Output connection capacitor discharge machine	



# Technical features

● Standard + Optional / Not available

Features	TIVA8-1ML	TIVA8-X-1ML	TIVA8-XE-1ML	TIVA8-WD-1ML	TIVA8-WD-XE-1ML
<b>Standard Features</b>					
Certified according to 2006/42/EC, 2014/35/EU, 2011/65/EU, 2014/30/EU, EN61010-1, EN 61326-1	●	●	●	●	●
Plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by EN 1717	●	●	●	●	●
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404)	●	●	●	●	●
Manual door with interlock	●	●	●	●	●
USB SLAVE interface for PC	●	●	●	●	●
USB HOST interface for FLASH DRIVE	●	●	●	●	●
Interface for external printer or data connection exchange	●	●	●	●	●
RS232 Interface for external cycles documentation	●	●	●	●	●
Touch panel with color graphic display	●	●	●	●	●
Parallel Interface for printer	●	●	●	●	●
Forced air drying	●	●	/	●	/
Hot/Cold water connection	●	●	●	●	●
<b>Optional Features</b>					
HEPA H14 filter	+	+	/	+	/
Conductivity probe	+	+	+	+	+
Cold/hot water softener system:	+	+	+	+	+
Wash chamber LED light	+	/	/	+	/
Demineralized water connection	+	+	+	+	+
Spray arm monitor	+	+	+	+	+
External printer for process-documentation	+	+	+	+	+
<b>Technical features</b>					
Max pump flow rate	370 L/min	370 L/min	370 L/min	370 L/min	370 L/min
Max drying fan flow rate with filter	180 m <sup>3</sup> /h	180 m <sup>3</sup> /h	-	180 m <sup>3</sup> /h	-
Max absorbed power *	6.2 kW	6.2 kW	6.2 kW	6.2 kW	6.2 kW
Max number of dosing pumps for chemicals with flowmeters	4	4	4	4	4
Chemical tank capacity	5 L	5 L	5 L	5 L	5 L

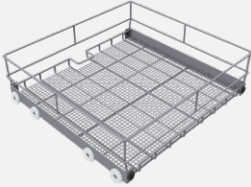
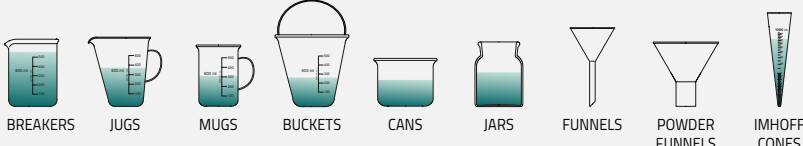

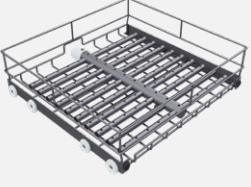
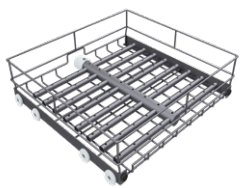
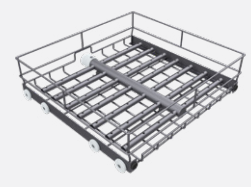

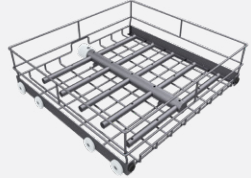
The reference values are based on a voltage of 230 V between Phase and Neutral (between Phase and Phase in three-phase versions without Neutral) with a possible variance between -5 and +10%.

\* Max absorbed power varies for each voltage. Please check the configuration data-sheet for exact figures



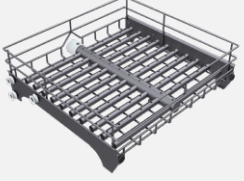


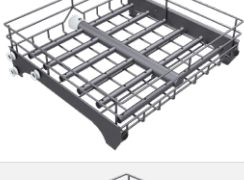
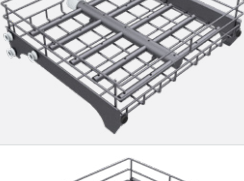
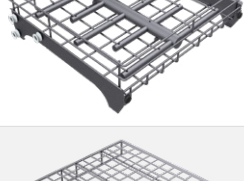
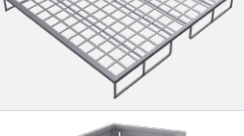

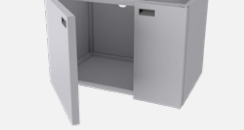
# TIVA8-1ML | TIVA8-X-1ML | TIVA8-XE-1ML TIVA8-WD-1ML | TIVA8-WD-XE-1ML

## RACKS

Code	Image	Description													
119905130		<p><b>TL130 LAB. LOWER RACK</b> Washing rack positioned on the lower level, basic version Suitable for washing the following glassware:</p>  <p>BREAKERS    JUGS    MUGS    BUCKETS    CANS    JARS    FUNNELS    POWDER FUNNELS    IMHOFF CONES</p> <p>Internal loading dimensions WxD: 500x485 mm. Rack external dimensions WxDxH: 525x502x148 mm.</p>													
119905139		<p><b>TL139 LAB. LOWER RACK 195 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 195 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>195</td> <td>30 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>56</td> <td>57 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>41</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	195	30 mm	Ø 2,5 mm	56	57 mm	Ø 2,5/4 mm	41	70 mm	All
N° max positions	Ø max glassware	Usable nozzles													
195	30 mm	Ø 2,5 mm													
56	57 mm	Ø 2,5/4 mm													
41	70 mm	All													
119905125		<p><b>TL125 LAB. LOWER RACK 110 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 110 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>40 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>56</td> <td>57 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>41</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	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
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		<p><b>TL140 LAB. LOWER RACK 72 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 72 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>50 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>56</td> <td>57 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>41</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	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
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		<p><b>TL141 LAB. LOWER RACK 56 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 56 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>56</td> <td>57 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>41</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	56	57 mm	Ø 2,5/4 mm	41	70 mm	All			
N° max positions	Ø max glassware	Usable nozzles													
56	57 mm	Ø 2,5/4 mm													
41	70 mm	All													
119905142		<p><b>TL142 LAB. LOWER RACK 41 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 41 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>41</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	41	70 mm	All						
N° max positions	Ø max glassware	Usable nozzles													
41	70 mm	All													
119905143		<p><b>TL143 LAB. LOWER RACK 25 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 25 Rack external dimensions WxDxH: 525x497x148 mm.</p>	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>89 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	25	89 mm	All						
N° max positions	Ø max glassware	Usable nozzles													
25	89 mm	All													



Code	Image	Description													
119905144		<b>TL144 LAB. LOWER RACK 18 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 18 Rack external dimensions WxDxH: 525x497x148 mm.	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>18</td> <td>105 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	18	105 mm	All						
N° max positions	Ø max glassware	Usable nozzles													
18	105 mm	All													
119905145		<b>TL145 LAB. LOWER RACK 16 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 16 Rack external dimensions WxDxH: 525x497x148 mm.	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>110 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	16	110 mm	All						
N° max positions	Ø max glassware	Usable nozzles													
16	110 mm	All													
119905146		<b>TL146 LAB. LOWER RACK 9 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 9 Rack external dimensions WxDxH: 525x497x148 mm.	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>150 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	9	150 mm	All						
N° max positions	Ø max glassware	Usable nozzles													
9	150 mm	All													
119911019		<b>TL019 LAB. LOWER RACK 48 POS. PIP.</b> Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 48 Suitable for washing the following glassware: GRADUATED PIPETTES BULB PIPETTES PASTEUR PIPETTES Rack external dimensions WxDxH: 525x497x313 mm.	<table border="1"> <thead> <tr> <th>Min pipette length</th> <th>Max pipette length</th> </tr> </thead> <tbody> <tr> <td>250 mm</td> <td>535 mm</td> </tr> </tbody> </table>	Min pipette length	Max pipette length	250 mm	535 mm								
Min pipette length	Max pipette length														
250 mm	535 mm														
119911020		<b>TL020 LAB. LOWER RACK 2 CASS. PIP.</b> Pipettes washing rack positioned at the lower level, with 2 cassettes Suitable for washing the following glassware: GRADUATED PIPETTES BULB PIPETTES PASTEUR PIPETTES Rack external dimensions WxDxH: 525x497x346 mm.	<table border="1"> <thead> <tr> <th>Min pipette length</th> <th>Max pipette length</th> </tr> </thead> <tbody> <tr> <td>All</td> <td>290 mm</td> </tr> </tbody> </table>	Min pipette length	Max pipette length	All	290 mm								
Min pipette length	Max pipette length														
All	290 mm														
119905126		<b>TL126 LAB. UPPER RACK W/S.ARM</b> Washing rack positioned on the upper level, with spray arm Suitable for washing the following glassware: BREAKERS JUGS MUGS BUCKETS CANS JARS FUNNELS POWDER FUNNELS IMHOFF CONES Internal loading dimensions WxD: 485x465 mm. Rack external dimensions WxDxH: 530x483x164 mm.													
119905132		<b>TL132 LAB. UPPER RACK 195 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 195 Rack external dimensions WxDxH: 530x483x164 mm.	<table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>195</td> <td>30 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>56</td> <td>57 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>36</td> <td>74 mm</td> <td>All</td> </tr> </tbody> </table>	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
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		<b>TL131 LAB. UPPER RACK 110 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 110 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			110	40 mm	Ø 2,5 mm
			56	57 mm	Ø 2,5/4 mm
			36	74 mm	All
119905134		<b>TL134 LAB. UPPER RACK 72 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 72 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			72	50 mm	Ø 2,5 mm
			56	57 mm	Ø 2,5/4 mm
			36	74 mm	All
119905135		<b>TL135 LAB. UPPER RACK 56 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 56 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			56	57 mm	Ø 2,5/4 mm
			36	74 mm	All
119905136		<b>TL136 LAB. UPPER RACK 36 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 36 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			36	74 mm	All
119905137		<b>TL137 LAB. UPPER RACK 25 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 25 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			25	90 mm	All
119905138		<b>TL138 LAB. UPPER RACK 18 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 18 Rack external dimensions WxDxH: 530x483x164 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			18	105 mm	All
D00643500		<b>A126 RAISING GRID</b> Raising grid suitable for washing racks positioned at the upper level Grid external dimensions WxDxH: 477x456x51 mm.			
ATS238-0103		<b>A136 STAINLESS STEEL STAND TIVA8</b> Stand for TIVA8-1ML, TIVA8-X-1ML, and TIVA8-XE-1ML 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.			
ATS238-0104		<b>A137 STAINLESS STEEL STAND TIVA8-WD</b> Stand for TIVA8-WD-1ML and TIVA8-WD-XE-1ML 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.			



0:08:44

# TIVA10-1ML

## MANUAL DOOR

Machine equipped with a manual opening and closing door made of 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 filters, electrically heats and forces, with a powerful 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.



### Touchpad keyboard with graphical display

Thanks to the LCD graphic touch display, it is possible to choose the desired program or to enter the device programming menu. The LCD display also shows the current state of the machine, using animated graphics that appear on it.



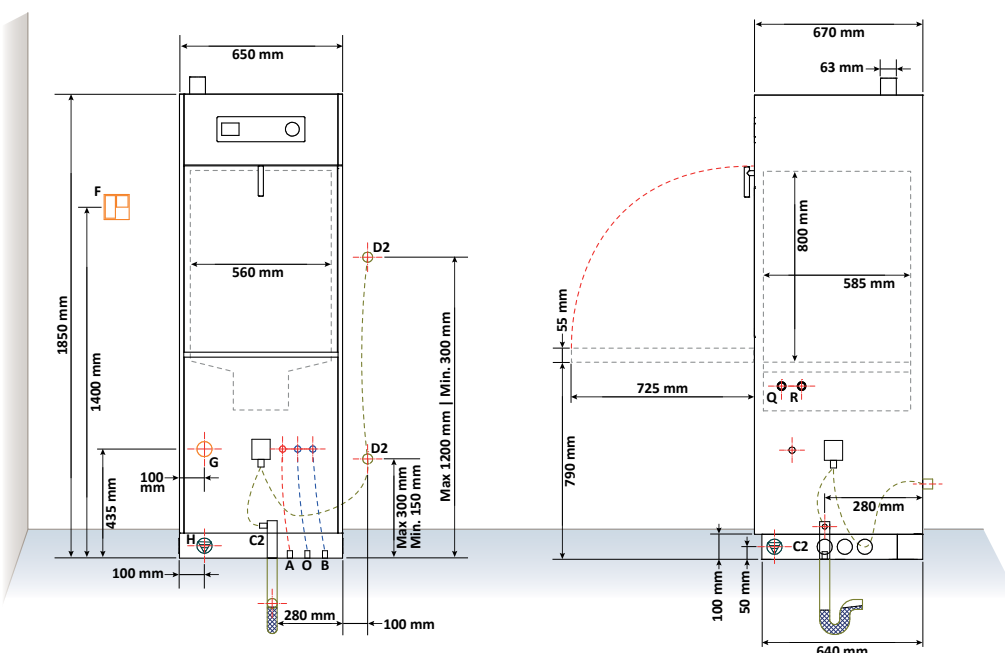
### Dosing pumps

Up to 4 dosing pumps with level control sensors and flow meters for monitoring the detergent quantity can be mounted (2 dosing pumps are already mounted in the standard machine).



### Liquid detergent canisters

5 Liter liquid detergent canisters are placed inside the base of the device (max. 4 canisters).



### LEGEND

A	Hot water connection - male-thread G $\frac{3}{4}$ " (tube G $\frac{1}{2}$ " )
B	Cold water connection - male-thread G $\frac{3}{4}$ " (tube G $\frac{1}{2}$ " )
C2	Drain $\varnothing 1\frac{1}{2}$ " (DN40) - hose connection 1" (25mm) (at floor)
D2	Drain $\varnothing 1\frac{1}{2}$ " (DN40) - hose connection 1" (25mm) (at wall)
F	Omnipolar magneto switch with a circuit breaker
G	Electrical connection box
H	Equipotential clamp
O	Deionized water connection - male-thread G $\frac{3}{4}$ " (tube G $\frac{1}{2}$ " )
Q	Steam connection G da $\frac{1}{2}$ " (inlet)
S	Steam connection G da $\frac{1}{2}$ " (outlet)



# TIVA10-1VL

## AUTOMATIC DOOR

Machine equipped with an automatic sliding door, of double tempered glass, for laboratory glassware with 4 independent levels. The upper levels are removable for washing large items. Is equipped with a system that filters, electrically heats and forces, with a powerful 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.



### Touchpad keyboard with graphical display

Thanks to the LCD graphic touch display, it is possible to choose the desired program or to enter the device programming menu. The LCD display also shows the current state of the machine, using animated graphics that appear on it.



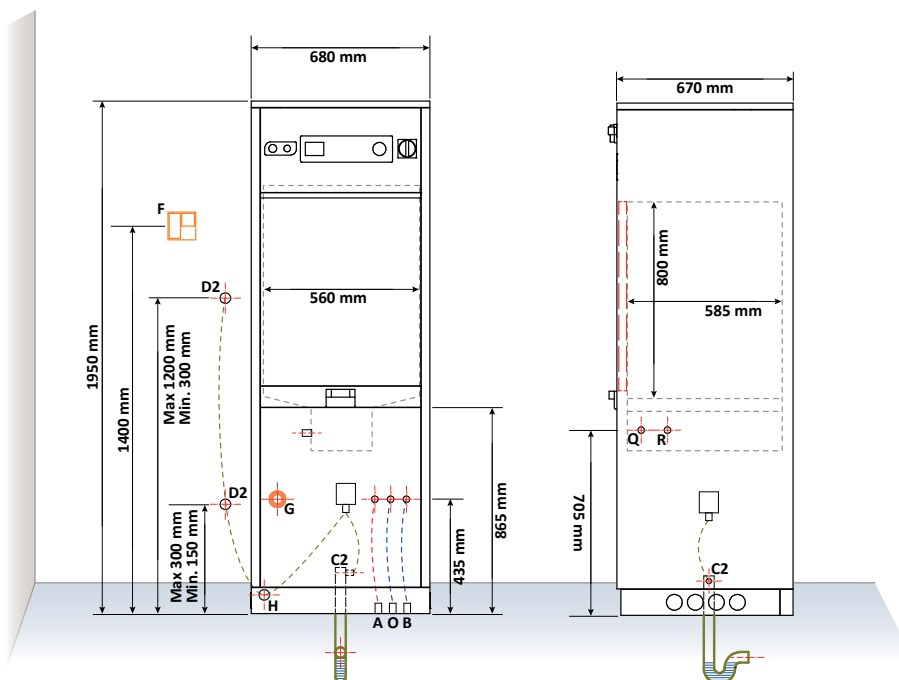
### Dosing pumps

Up to 4 dosing pumps with level control sensors and flow meters for monitoring the detergent quantity can be mounted (2 dosing pumps are already mounted in the standard machine).



### Liquid detergent canisters

5 Liter liquid detergent canisters are placed inside the base of the device (max. 4 canisters).



### LEGEND

A	Hot water connection- male-thread G ¾" (tube G ½")
B	Cold water connection- male-thread G ¾" (tube G ½")
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
H	Equipotential clamp
O	Deionized water connection- male-thread G ¾" (tube G ½")
Q	Steam connection G da ½" (inlet)
S	Steam connection G da ½" (outlet)

● Standard + Optional / Not available

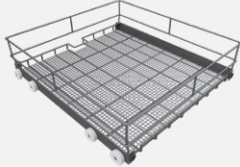


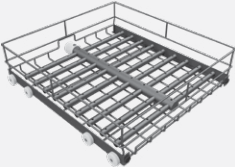
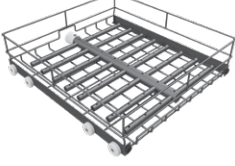
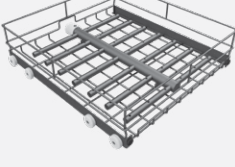

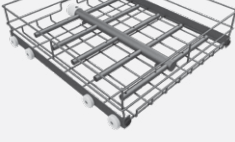
Technical features	TIVA10-1ML	TIVA10-1VL
External dimension (WxDxH):	650x700x1850 mm	680x700x1950 mm
Chamber dimension (WxDxH):	560x585x800 mm	560x585x800 mm
Max pump flow rate:	626 l/mn	626 l/mn
Max drying fan flow rate with filter:	150 m <sup>3</sup> /h	150 m <sup>3</sup> /h
Max absorbed power:	11,4 kW	11,4 kW
Max number of dosing pumps for chemicals with flowmeters:	4	4
Chemical tank capacity:	5 Liter	5 Liter
Device configuration options		
USB SLAVE interface for PC:	●	●
USB HOST interface for FLASH DRIVE:	●	●
Interface for external printer or data connection exchange:	●	●
Touch panel with color graphic display:	●	●
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	●	●
Automatic door:	●	●
Forced air drying:	●	●
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	●	●
Hot water connection:	●	●
Cold water connection:	●	●
Deionized water connection:	●	●
HEPA H14 filter:	+	+
Main switch ON/OFF. In accordance with the electrical connection:	+	+
(E.T.S.) Empty Total System:	+	+
Hybrid heating system: electric steam:	+	+
Deionized water heating with boiler:	+	+
Drain pump:	+	+
Conductivity probe:	+	+
Water softener system:	+	+
Wash chamber LED light:	+	+
Spray arm monitor:	+	+
Built-in printer frontally installed:	+	+

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%.

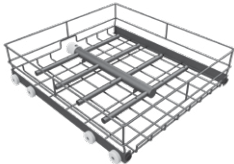
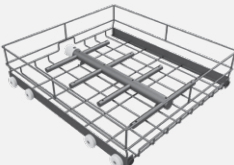
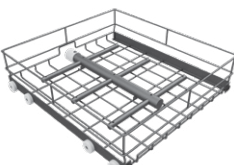
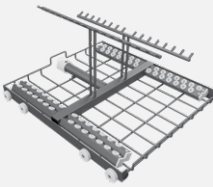
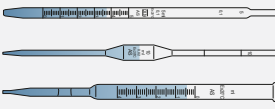
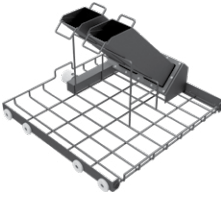
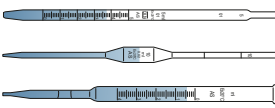

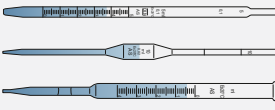


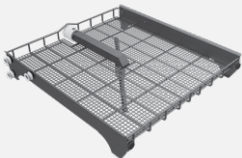

# TIVA10-1ML | TIVA10-1VL

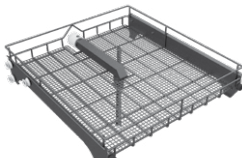
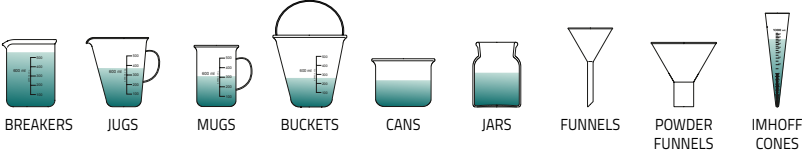
## RACKS


Code	Image	Description												
119905133		<p><b>TL133 LAB. LOWER RACK</b> Washing rack positioned on the lower level, basic version Suitable for washing the following glassware:</p>  <p>Internal loading dimensions WxD: 495x545 mm. Rack external dimensions WxDxH: 530x568x148 mm.</p>												
119905127		<p><b>TL127 LAB. LOWER RACK 110 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 110 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>40</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>81</td> <td>52 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	110	40	Ø 2,5 mm	81	52 mm	Ø 2,5/4 mm	42	70 mm	All
N° max positions	Ø max glassware	Usable nozzles												
110	40	Ø 2,5 mm												
81	52 mm	Ø 2,5/4 mm												
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119911011		<p><b>TL011 LAB. LOWER RACK 81 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 81 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>81</td> <td>52 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	81	52 mm	Ø 2,5/4 mm	42	70 mm	All			
N° max positions	Ø max glassware	Usable nozzles												
81	52 mm	Ø 2,5/4 mm												
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119911012		<p><b>TL012 LAB. LOWER RACK 56 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 56 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>56</td> <td>60 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	56	60 mm	Ø 2,5/4 mm	42	70 mm	All			
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119911013		<p><b>TL013 LAB. LOWER RACK 42 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 42 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	42	70 mm	All						
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42	70 mm	All												
119911014		<p><b>TL014 LAB. LOWER RACK 36 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 36 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>80 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	36	80 mm	All						
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119911015		<p><b>TL015 LAB. LOWER RACK 20 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 20 Rack external dimensions WxDxH: 530x568x148 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>100 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	20	100 mm	All						
N° max positions	Ø max glassware	Usable nozzles												
20	100 mm	All												





Code	Image	Description			
119911016		<b>TLO16 LAB. LOWER RACK 16 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 16 Rack external dimensions WxDxH: 530x568x148 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			16	110 mm	All
119911017		<b>TLO17 LAB. LOWER RACK 12 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 12 Rack external dimensions WxDxH: 530x568x148 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			12	130 mm	All
119911018		<b>TLO18 LAB. LOWER RACK 9 POS.</b> Washing rack positioned at the lower level, max. nozzles positionable: 9 Rack external dimensions WxDxH: 530x568x148 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			9	160 mm	All
119911021		<b>TLO21 LAB. LOWER RACK 56 POS. PIP.</b> 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.	<b>Min pipette length</b>		
			250 mm	760 mm	
119911022		<b>TLO22 LAB. LOWER RACK 2 CASS. PIP.</b> Pipettes washing rack positioned on the lower level, with 2 cassettes Suitable for washing the following glassware:  Rack external dimensions WxDxH: 525x497x540 mm.	<b>Min pipette length</b>		<b>Max pipette length</b>
			All	520 mm	
119911023		<b>TLO23 LAB. LOWER RACK 3 CASS. PIP.</b> Pipettes washing rack positioned on the lower level, with 3 cassettes Suitable for washing the following glassware:  Rack external dimensions WxDxH: 525x497x540 mm.	<b>Min pipette length</b>		
			All	520 mm	


Code	Image	Description
119905128		<p><b>TL128 LAB. INT. RACK W/S.ARM</b>            Washing rack positioned at intermediate level, with spray arm            Suitable for washing the following glassware:</p>  <p>Internal loading dimensions WxD: 485x530 mm.            Rack external dimensions WxDxH: 530x550x95 mm.</p>

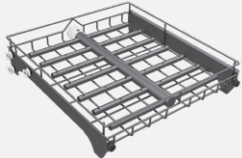
119905129		<p><b>TL129 LAB. UPPER RACK W/S.ARM</b>            Washing rack positioned on the upper level, with spray arm            Suitable for washing the following glassware:</p>  <p>Internal loading dimensions WxD: 485x530 mm.            Rack external dimensions WxDxH: 530x550x124 mm.</p>
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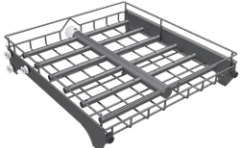
119911003		<p><b>TL003 LAB. UPPER RACK 169 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 169            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>169</td> <td>32 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>81</td> <td>52 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	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
N° max positions	Ø max glassware	Usable nozzles												
169	32 mm	Ø 2,5 mm												
81	52 mm	Ø 2,5/4 mm												
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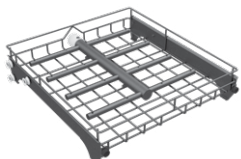
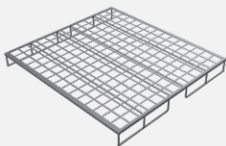


119911004		<p><b>TL004 LAB. UPPER RACK 110 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 110            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>40 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>81</td> <td>52 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	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
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42	70 mm	All												

119911005		<p><b>TL005 LAB. UPPER RACK 81 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 81            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>81</td> <td>52 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	81	52 mm	Ø 2,5/4 mm	42	70 mm	All
N° max positions	Ø max glassware	Usable nozzles									
81	52 mm	Ø 2,5/4 mm									
42	70 mm	All									

119911006		<p><b>TL006 LAB. UPPER RACK 56 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 56            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>56</td> <td>60 mm</td> <td>Ø 2,5/4 mm</td> </tr> <tr> <td>42</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	56	60 mm	Ø 2,5/4 mm	42	70 mm	All
N° max positions	Ø max glassware	Usable nozzles									
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42	70 mm	All									

119911007		<p><b>TL007 LAB. UPPER RACK 42 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 42            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>70 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	36	70 mm	All
N° max positions	Ø max glassware	Usable nozzles						
36	70 mm	All						

119911008		<p><b>TL008 LAB. UPPER RACK 36 POS.</b>            Washing rack positioned at the upper level, max. nozzles positionable: 36            Rack external dimensions WxDxH: 530x550x124 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>36</td> <td>80 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	36	80 mm	All
N° max positions	Ø max glassware	Usable nozzles						
36	80 mm	All						

Code	Image	Description			
119911009		<b>TL009 LAB. UPPER RACK 20 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 20 Rack external dimensions WxDxH: 530x550x124 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			20	100 mm	All
119911010		<b>TL010 LAB. UPPER RACK 16 POS.</b> Washing rack positioned at the upper level, max. nozzles positionable: 16 Rack external dimensions WxDxH: 530x550x124 mm.	<b>N° max positions</b>	<b>Ø max glassware</b>	<b>Usable nozzles</b>
			16	110 mm	All
D00604800		<b>A117 RAISING GRID</b> Raising grid suitable for all washing racks Grid external dimensions WxDxH: 477x522x51 mm.			
ATS238-0289		<b>A049 FIX. H. TRANSF. TROLLEY AWD655-10</b> Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 750x628x880 mm.			
ATS238-0290		<b>A020 FIX. H. TRANSF. TROLLEY AWD655-10A</b> Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 750x623x875 mm.			

# TIVA15-1VL

## AUTOMATIC DOOR

Machine equipped with an automatic sliding door, of double tempered glass, for laboratory glassware with 4 independent levels. The upper levels are removable for washing large materials. On request, it can be equipped with a system that filters, electrically heats and forces, with a powerful blower, the air in the wash chamber and inside the hollow instruments. A wide range of racks, nozzles and accessories, suitable to wash and dry a wide variety of laboratory glassware.



### Touchpad keyboard with graphical display

Thanks to the LCD (70x50) graphic touch display, it is possible to choose the desired program or to enter the device programming menu. The LCD display also shows the current state of the machine, using animated graphics that appear on it.



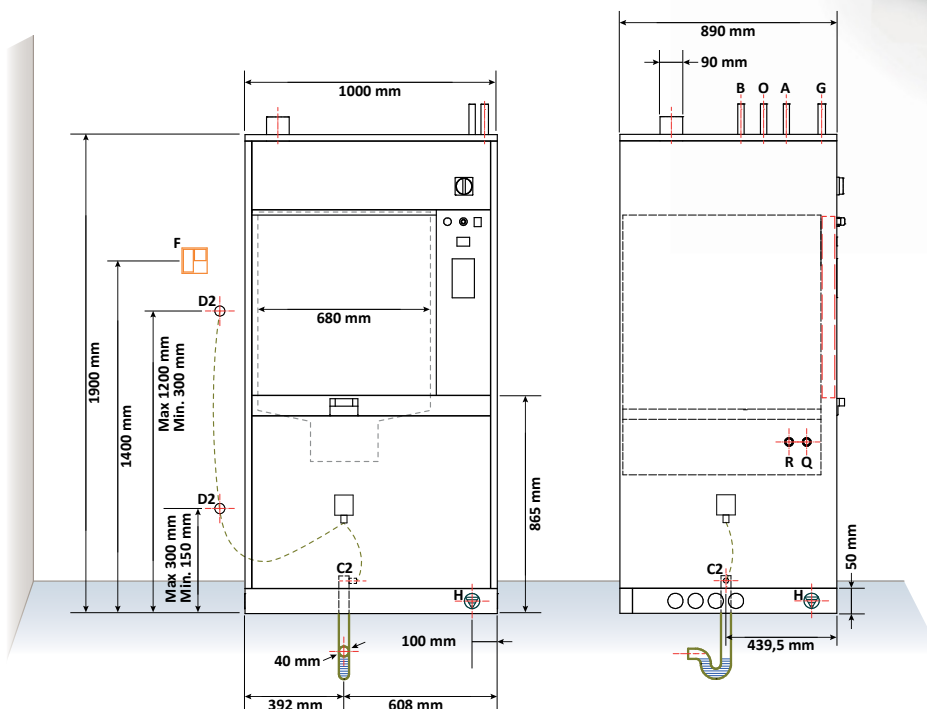
### Dosing pumps

Up to 5 dosing pumps with level control sensors and flow meters for monitoring the detergent quantity can be mounted (2 dosing pumps are already mounted in the standard machine).



### Liquid detergent canisters

5 Liter liquid detergent canisters are placed inside the base of the device (max. 4 canisters).





Technical features	TIVA15-1VL
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 Liter
Device configuration options	
USB SLAVE interface for PC:	●
USB HOST interface for FLASH DRIVE:	●
Interface for external printer or data connection exchange:	●
Touch panel with color graphic display:	●
Certificated plumbing system, designed to isolate the potable water pipeline system (water gap) as prescribed by European Standard EN 1717:	●
Automatic door:	●
Wash chamber made of high quality stainless steel, AISI 316L (EN 1.4404):	●
Hot water connection:	●
Cold water connection:	●
Deionized water connection:	●
Forced air drying:	+
HEPA H14 filter:	+
Main switch ON/OFF. In accordance with the electrical connection:	+
(E.T.S.) Empty Total System:	+
Hybrid heating system: electric steam:	+
Deionized water heating with boiler:	+
Drain pump:	+
Conductivity probe:	+
Water softener system:	+
Wash chamber LED light:	+
Spray arm monitor:	+
Built-in printer frontally installed:	+

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

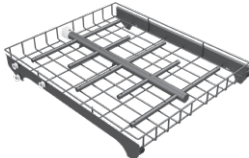
A	Hot water connection - male-thread G ¾" (tube G ½")
B	Cold water connection - male-thread G ¾" (tube G ½")
C2	Drain Ø1" ½ (DN40) - hose connection 1" (25mm) (at floor)
D2	Drain Ø1" ½ (DN40) - hose connection 1" (25mm) (at wall)
F	Omnipolar magneto switch with a circuit breaker
G	Electrical connection box
H	Equipotential clamp
O	Deionized water connection - male-thread G ¾" (tube G ½")
Q	Steam connection G da ½" (inlet)
S	Steam connection G da ½" (outlet)

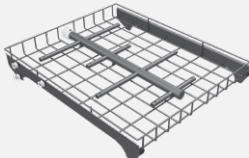
# TIVA15-1VL

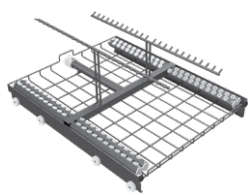
## RACKS

Code	Image	Description									
119911025		<p><b>TLO25 LAB. LOWER RACK</b> Washing rack positioned on the lower level, basic version Suitable for washing the following glassware:</p> <p>BREAKERS   JUGS   MUGS   BUCKETS   CANS   JARS   FUNNELS   POWDER FUNNELS   IMHOFF CONES</p> <p>Internal loading dimensions WxD: 600x750 mm. Rack external dimensions WxDxH: 650x786x109 mm.</p>									
119911024		<p><b>TLO24 LAB. RACK W/S.ARM</b> Washing rack can be positioned on all levels except the lower one, with spray arm Suitable for washing the following glassware:</p> <p>BREAKERS   JUGS   MUGS   BUCKETS   CANS   JARS   FUNNELS   POWDER FUNNELS   IMHOFF CONES</p> <p>Internal loading dimensions WxD: 600x750 mm. Rack external dimensions WxDxH: 650x770x109 mm.</p>									
119911027		<p><b>TLO27 LAB. RACK 330 POS.</b> Washing rack, max. nozzles positionable: 330 Rack external dimensions WxDxH: 650x770x109 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>330</td> <td>25 mm</td> <td>Ø 2,5 mm</td> </tr> <tr> <td>72</td> <td>75 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	330	25 mm	Ø 2,5 mm	72	75 mm	All
N° max positions	Ø max glassware	Usable nozzles									
330	25 mm	Ø 2,5 mm									
72	75 mm	All									
119911028		<p><b>TLO28 LAB. RACK 72 POS.</b> Washing rack, max. nozzles positionable: 72 Rack external dimensions WxDxH: 650x770x109 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>72</td> <td>75 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	72	75 mm	All			
N° max positions	Ø max glassware	Usable nozzles									
72	75 mm	All									
119911029		<p><b>TLO29 LAB. RACK 56 POS.</b> Washing rack, max. nozzles positionable: 56 Rack external dimensions WxDxH: 650x770x109 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>56</td> <td>84 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	56	84 mm	All			
N° max positions	Ø max glassware	Usable nozzles									
56	84 mm	All									
119911030		<p><b>TLO30 LAB. RACK 48 POS.</b> Washing rack, max. nozzles positionable: 48 Rack external dimensions WxDxH: 650x770x109 mm.</p> <table border="1"> <thead> <tr> <th>N° max positions</th> <th>Ø max glassware</th> <th>Usable nozzles</th> </tr> </thead> <tbody> <tr> <td>48</td> <td>90 mm</td> <td>All</td> </tr> </tbody> </table>	N° max positions	Ø max glassware	Usable nozzles	48	90 mm	All			
N° max positions	Ø max glassware	Usable nozzles									
48	90 mm	All									

Code	Image	Description
------	-------	-------------

119911031		<b>TLO31 LAB. RACK 18 POS.</b> Washing rack, max. nozzles positionable: 18 Rack external dimensions WxDxH: 650x770x109 mm.	<b>N° max positions</b> 18	<b>Ø max glassware</b> 150 mm	<b>Usable nozzles</b> All


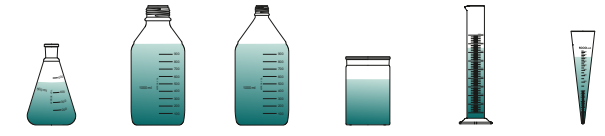





119911032		<b>TLO32 LAB. RACK 10 POS.</b> Washing rack, max. nozzles positionable: 10 Rack external dimensions WxDxH: 650x770x109 mm.	<b>N° max positions</b> 10	<b>Ø max glassware</b> 190 mm	<b>Usable nozzles</b> All

119911026		<b>TLO26 LAB. LOWER RACK 88 POS. PIP.</b> Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 88 Suitable for washing the following glassware:	<b>Min pipette length</b> 250	<b>Max pipette length</b> 700 mm
			GRADUATED PIPETTES BULB PIPETTES PASTEUR PIPETTES	
Rack external dimensions WxDxH: 630x785x355 mm.				















ATS238-0291		<b>A016 FIX. H. TRANSF. TROLLEY AWD655-15A</b> Loading trolley with block system to load washing material into the machine Rack external dimensions WxDxH: 925x723x875 mm.
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






# TIVA LAB LINE

## NOZZELS

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



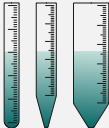












Code	Image	Description	Additional Description	
P00001013		<b>A098 NOZZLE Ø6 C+INT. C.28 H=120</b> External dimensions WxH: 75x120 mm.	<p><b>NOZZLE WITH RIGID INTERNAL - Ø 6 mm</b> Nozzles Ø 6 mm with rigid bottle holder to block the glassware during washing, avoiding possible movements, falls and breakages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

Code	Image	Description	Additional Description
P00001021		<b>A106 NOZZLE Ø4 C H=76</b> External dimensions WxH: 54x76 mm.	<p><b>STANDARD NOZZLES - Ø 4 mm</b></p> <p>Suitable for washing the following glassware:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>HIGH CAPACITY FLASKS</p> </div> <div style="text-align: center;">  <p>GRADUATED CYLINDERS</p> </div> </div>
P00001022		<b>A107 NOZZLE Ø4 C+S H=111</b> External dimensions WxH: 54x111 mm.	
P00001023		<b>A108 NOZZLE Ø4 C+S H=176</b> External dimensions WxH: 54x176 mm.	
P00001024		<b>A109 NOZZLE Ø2.5 P H=81</b> External dimensions WxH: 15,5x81 mm.	<p><b>STANDARD OR WITH RIGID CAP NOZZLES - Ø 2.5 mm</b></p> <p>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</p> <p>Suitable for washing the following glassware:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>TEST TUBES</p> </div> <div style="text-align: center;">  <p>LOW CAPACITY FLASKS</p> </div> <div style="text-align: center;">  <p>CENTRIFUGE TUBES</p> </div> </div>
P00001025		<b>A110 NOZZLE Ø2.5 P+S H=81</b> External dimensions WxH: 15,5x81 mm.	
P00001026		<b>A111 NOZZLE Ø2.5 C H=51</b> External dimensions WxH: 32x51 mm.	
P00001027		<b>A112 NOZZLE Ø2.5 C H=81</b> External dimensions WxH: 32x81 mm.	
P00001028		<b>A113 NOZZLE Ø2.5 C H=156</b> External dimensions WxH: 32x156 mm.	

# TIVA LAB LINE

## ACCESSORIES

Code	Image	Description
D00559900		<p><b>A114 CAP SCREW M8x1</b> Hexagon head screw with M8x1 thread</p> <p>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.</p>
119905072		<p><b>A130 TEST TUBES BASKET H=160</b> Test tube basket</p> <p>Use up to 4 baskets per cart. Suitable for washing the following glassware:</p>  <p>TEST TUBES</p> <p>Maximum tube height: 150 mm.</p>
D00285200		<p><b>A032 INSERT FOR PETRI DISHES</b> Insert capacity: 30 pcs. Petri dishes. Suitable for washing the following glassware:</p>  <p>PETRI DISHES</p> <p>External dimensions WxDxH: 470x240x77 mm.</p>
D00570100		<p><b>A115 BOTT. RIGID SUPPORT Ø33</b> Bottle holder Ø 33 mm for nozzles with rigid inside Ø 6 mm</p>
D00570300		<p><b>A116 BOTT. RIGID SUPPORT Ø45</b> Bottle holder Ø 45 mm for nozzles with rigid inside Ø 6 mm</p>
467010017		<p><b>A128 ADAP. MALE LUER TO M8X1 MALE THREAD</b> Luer-Lock attachment adapter</p>
467010018		<p><b>A129 PVDF FEMALE LUER TO 3/16" HOSE BARB</b> Hose holder for Luer-Lock attachment</p>
467010019		<p><b>A131 PVDF MALE LUER TO 3/16" HOSE BARB</b> Hose holder for Luer-Lock attachment</p>
467010020		<p><b>A132 PVDF FEMALE LUER TO 1/4" HOSE BARB</b> Hose holder for Luer-Lock attachment</p>
467010021		<p><b>A133 PVDF MALE LUER TO 1/4" HOSE BARB</b> Hose holder for Luer-Lock attachment</p>
467010022		<p><b>A134 PVDF ELBOW FITTING 1/4" HOSE BARB</b> Hose holder for Luer-Lock attachment</p>

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### Tuttnauer Europe b.v.

Hoeksteen 11, 4815 PR  
PO Box 7191, 4800 GD Breda  
The Netherlands  
Tel: +31 765 423 510  
Fax: +31 765 423 540  
E-mail: [info@tuttnauer.nl](mailto:info@tuttnauer.nl)

### Tuttnauer USA Co.

25 Power Drive,  
Hauppauge, NY 11788  
Tel: +800 624 5836, +631 737 4850  
Fax: +631 737 0720  
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