

**Tuttnauer** Lab

# TIVA LAB

High-End Glassware Washer for Laboratories

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



**MEDIPLAN**

— Equipements, Conseil, Services —



## 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

# 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.



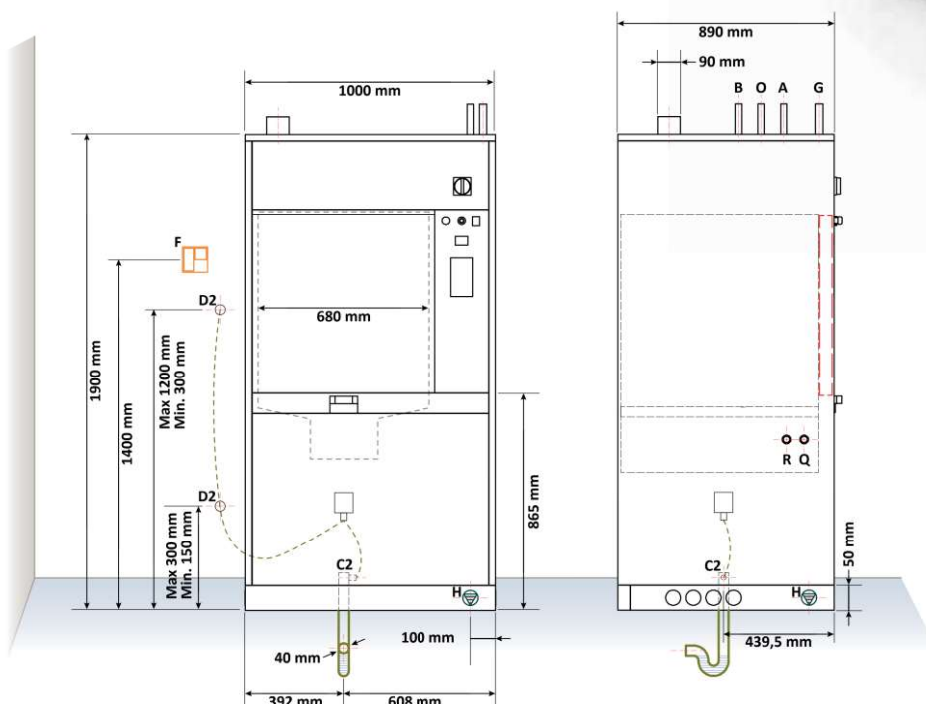
### Dosing pumps

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

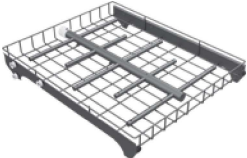
A	Hot water connection - male-thread G ¾" (tube G ½")
B	Cold water connection - male-thread G ¾" (tube G ½")
C2	Drain Ø1" ½ (DN40) - hose connection 1" (25mm) (at floor)
D2	Drain Ø1" ½ (DN40) - hose connection 1" (25mm) (at wall)
F	Omnipolar magneto switch with a circuit breaker
G	Electrical connection 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)

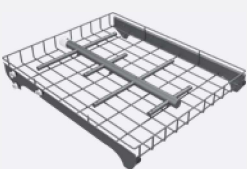
# TIVA15-1VL

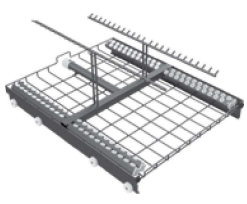
## RACKS


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
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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









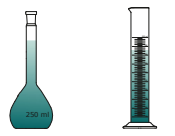

119911026		<b>TLO26 LAB. LOWER RACK 88 POS. PIP.</b> Washing rack for pipettes positioned at the lower level, max pipettes can be positioned: 88 Suitable for washing the following glassware:	<b>Min pipette length</b> 250	<b>Max pipette length</b> 700 mm
			GRADUATED PIPETTES BULB PIPETTES PASTEUR PIPETTES	
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.	
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.	<p><b>STANDARD NOZZLES - Ø 6 mm</b> Suitable for washing the following glassware:</p>  <p>HIGH CAPACITY FLASKS    GRADUATED CYLINDERS</p>
P00001012		<b>A097 NOZZLE Ø6 C+S H=280</b> External dimensions WxH: 75x280 mm.	





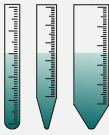










Code	Image	Description	Additional Description	
P00001013		<b>A098 NOZZLE Ø6 C+INT. C.28 H=120</b> External dimensions WxH: 75x120 mm.	<p><b>NOZZLE WITH RIGID INTERNAL - Ø 6 mm</b> Nozzles Ø 6 mm with rigid bottle holder to block the glassware during washing, avoiding possible movements, falls and breakages 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;">   HIGH CAPACITY FLASKS </div> <div style="text-align: center;">   GRADUATED CYLINDERS </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;">   TEST TUBES </div> <div style="text-align: center;">   LOW CAPACITY FLASKS </div> <div style="text-align: center;">   CENTRIFUGE TUBES </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>

## Le saviez-vous ?

Des laboratoires dans 142 pays du monde utilisent les autoclaves Tuttnauer. Fort de ses 95 ans d'expérience dans l'industrie, Tuttnauer propose des solutions de pointe pour tous les types de laboratoires, avec une gamme de produits disponibles dans un large éventail de tailles et des capacités de stérilisation précises et de haute qualité, couvrant toutes les exigences des laboratoires.



Gros Autoclaves de laboratoire



Autoclaves horizontaux de laboratoire



Autoclaves de laboratoire TLC



Ligne ELV - Autoclaves verticaux de laboratoire



Ligne EL - Autoclaves de paillasse de laboratoire

Laboratoire

**MEDIPLAN**

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