

Laboratory Infection Control Solutions



Experts in sterilization and infection control since 1925



Tuttnauer has manufactured sterilization products for over 100 years and as a market leader has developed a reputation for premium quality, high performance and reliability. Tuttnauer's infection control products service the medical, laboratory, dental and veterinary industries around the globe.

Tuttnauer provides a complete infection control solution for the entire instrument reprocessing procedure for research and educational laboratory institutions. Meeting the highest standards for quality, safety and performance, Tuttnauer's advanced laboratory autoclaves are trusted by life science labs and research institutes throughout the world.

Tuttnauer provides laboratory autoclaves with advanced cycle programs and features designed to satisfy the sterilization needs of life science laboratories. Our product ranges from small to large autoclaves, including a wide range of vertical and horizontal autoclaves and washer-disinfectors. Our devices are designed with cycle features for day-to-day needs, that are intuitive, with user friendly technology, colour touchscreen and multiple programmes for sterilization.

Tuttnauer devices are especially unique because the devices are equipped with the game changing, exclusive, T-Connect software, offering Wi-Fi connectivity and technologically advanced features. T-Connect is designed to significantly minimize machine downtime while providing data cycles and documentation remotely.

Laboratory Complete Infection **Control Solution**

Choosing the right laboratory steam autoclave requires considerations of different needs such as the type of loads, frequency of use, available services and load volumes. The Tuttnauer laboratory and research institute solution meets all sterilization needs. This includes the T-Lab autoclave series which features the **T-Connect software** and larger autoclave for heavier loads, High Disinfection Thermal Washers and a large variety of accessories to accommodate every need.

Soaking & Washing

Washers





TIVA8 (1ML/WD) Stainless Steel/Glass Door 165L Chamber Undercounter

TIVA 10 (1ML/1VL) Glass Door 265L Chamber

Processing & Sterilization



2840 EL

28L Chambe





3850 EL 65L Chamber

3870 EL 851 Chamber

Processing & Sterilization







T-CLassic Plus Gauged 121 Chamber

T-CLassic Media 12L Chamber



TIVA 15 1VL Glass Door 430L Chamber



Racks and Trays



Trollies for TIVA10 & TIVA15

Benchtop D-Line Autoclaves





5075 EL 160L Chamber

Semi-Automatic



2540 ML 23L Chamber

Processing & Sterilization D-Line Vertical Autoclaves





3850 ELV 65L Chamber 5075 ELV 160L Chamber

Built-in Steam Generator

3870 ELV

85L Chamber

Vertical Top Loading Models



3870 ELVC-G 851 Chambe



5075 ELVC-G 160L Chamber



/ertical Baskets



Top-loading vertical autoclave without drain or water connection



2840 ELV-WR 31L Chamber

3850 ELV-WR 3870 ELV-WR 65L Chamber 85L Chamber

Processing & Sterilization



T-Lab Eco V60, V85

60L, 85L Chamber



5596 Compact Horizontal 250 Liter

Two configurations are available, each designed for specific needs: Waste sterilization & Liquid Sterilization



66120 450 Liter Fully Automatic Vertical Sliding Door

Two configurations are available, each designed for specific needs: Waste sterilization (Advanced) & Liquid Sterilization

Validation & Consumables



BENCHTOP AND VERTICAL D-LINE

Tuttnauer D-Line Vertical and Benchtop devices are designed to provide high quality repeatable performance and accountability for a wide range of applications used in modern laboratories, which include: • Liquid sterilization (using two flexible PT100 probes) with various cooling options

 Pipette and Glass sterilization
 Instrument sterilization (wrapped or unwrapped) Biohazard and Waste sterilization • Agar preparation • Specialized customized cycles

Features

- Fo software control
- PID (Proportional Integral Differential) pressure control ٠
- ٠ Stores the last 200 cycles in built-in memory
- Two independent flexible PT100 temperature sensors to prevent over-boiling of liquids and explosions of bottles ٠
- 30 Identification Codes and Passwords for access level control
- The controller and software comply with the 21 CFR part 11 standard ٠

Innovative Multi-Color Display

- Multi-color display for easier reading
- Color is used to indicate the stage of the cycle ٠
- Quick access to important information ٠
- ٠ 26 Languages
- Built-in view of historical cycle data ٠

Documentation Package

- An optional full documentation package is available:
- Installation Qualification 10
- 00 **Operation Qualifications**
- PO - Performance Qualification

Horizontal Front Loading Models





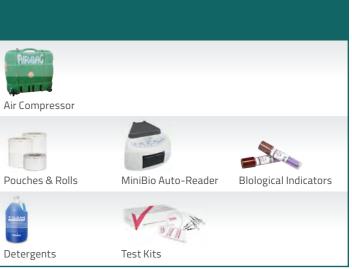
Benchtop Baskets

Economic Autoclaves



5075 ELC-G

160L Chamber





BENCHTOP AND VERTICAL D-LINE

BENCHTOP Autoclaves (EL)

Tuttnauer benchtop laboratory autoclaves are front loading autoclaves available in chamber sizes from 28 to 160 liters. EL models have an advanced multi-color control panel and a chamber made of 316L stainless steel.



Benchtop D-Line Models - Technical Data

D-Line Model	Chamber Dimensions ØxD (mm)	Chamber Volume (Liter)	External Dimensions WxHxD (mm)		
2840 EL	280 x 400	28	530 x 425 x 636		
3850 EL	380 x 500	65	720 x 540 x 765		
3870 EL	380 x 690	85	720 x 540 x 940		
5075 EL	500 x 750	160	860 x 740 x 1120		

📕 Erlenmeyer Flasks (ml) Loading Capacity

Model	250	500	1000	2000	3000	5000
2840	1 x 9	1 x 4	0	0	0	0
3850	1 x 17	1 x 11	1 x 6	1 x 3	0	0
3870	1 x 23	1 x 17	1 x 10	1 x 5	0	0
5075	1 x 50 1 x 18	1 x 18 1 x 18	1 x 15	1 x 7	1 x 4	1 x 3

Schott-Duran Flasks (ml) Loading Capacity

Model	250	500	1000	2000	3000	5000
2840	1 x 12	1 x 9	1 x 5	0	-	0
3850	1 x 27	1 x 16	1 x 11	1 x 6	-	0
3870	1 x 36	1 x 23	1 x 18	1 x 9	-	0
5075	1 x 55 1 x 39	1 x 32 1 x 27	1 x 20	1 x 10	-	1 x 5

The list of models on this page describes the available D-Line benchtop models with optional added-value features.Fast Cooling (C)Water cooling coil - Compressed air must be available for the necessary support pressure
for pre-vacuum air removal and post-vacuum moisture removal for improved dryingVacuum pump (P)Internal steam generator for fast and efficient heat up.

Part Number	Volume (Liters)	Voltage (V)	Phase	Cooling (C)	Vacuum Pump (PV)	Generator (G)
2840ELCG-230-D	28	230	1	х		х
2840ELPV-230-D		230	1		х	
3850ELC-230-D	65	230	1	х		
3870ELC-380-D	85	400	3	х		
3870ELCPVG-380-D	85	400	3	х	х	х
5075ELCPVG-380-D	160	400	3	х	х	х

T-CLASSIC LAB

T-CLASSIC PLUS GAUGED AUTOCLAVE

The autoclave has 12 litre capacity, with a 126°C sterilizing temperature. The internal furniture consists of a basket as standard and external pressure and temperature gauges.

Model	Chamber Dimensions ØxD (mm)	Chamber Volume (Liter)	External Dimensions WxHxD (mm)		
T-Classic Plus T-Classic Media	210 x 270	12	400 x 400 x 620		

VERTICAL AUTOCLAVES (ELV)

VERTICAL Autoclaves (ELV)

Tuttnauer vertical laboratory autoclaves are top loading autoclaves available in chamber sizes from 31 to 160 liters. ELV models have an advanced multi-color control panel and a chamber made of 316L or stainless steel option.



3850 ELV 3870 ELV

Vertical D-Line Models - Technical Data

	Chamber	Chamber Volume (Liter)		Model	250	500	1000	2000	3000	5000	
D-Line Model	Dimensions		External Dimensions WxHxD (mm)	3850	2 x 12	2 x 8	1 x 5	1 x 2	1	1	
	ØxD (mm)		, <i>, ,</i>	3870	3 x 12	3 x 8	2 x 5	2 x 2	2 x 1	1	
3850 ELV	380 x 500	65	730 x 1000 x 540	5075	3 x 21	3 x 14	3 x 8	2 x 5	2 x 4	1 x 2	
3870 ELV	380 x 690	85	730 x 1000 x 540	Schott-Duran Flasks (ml) Loading Capacity							
5075 ELV	500 x 750	160	870 x 1090 x 770	Model	250	500	1000	2000	3000	5000	
		1]	3850	2 x 19	2 x 12	1 x 8	1 x 4	-	1	
				3870	3 x 19	3 x 12	2 x 8	2 x 4	-	1	
				5075	3 x 32	3 x 21	3 x 15	2 x 8	-	2 x 4	



T-CLASSIC MEDIA

The autoclave has 12 litre capacity with a 121°C sterilizing temperature. The unit has an interlocking system and the internal furniture consists of a basket as standard, and has one fixed cycle which is pre-programmed and fully automatic. Built-In safety mechanism that prevents the unit from being opened until the temperature inside has fallen to a safe level of 80°C.



5075 ELV

Erlenmeyer Flasks (ml) Loading Capacity

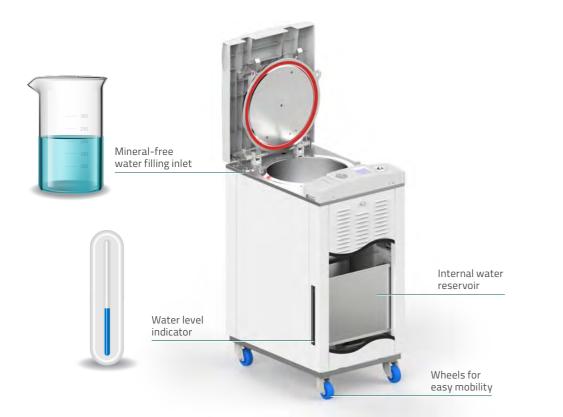
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VERTICAL AUTOCLAVES (ELV)

Top-loading vertical autoclave without drain or water connection

ELV-WR is the perfect choice for laboratories that require a highquality autoclave without the need for fast cooling, closed door drying or vacuum for porous loads. The ELV-WR is specially designed with a water reservoir that is filled manually and eliminates the need for drain or water connections. Only an electric power connection is needed.

* Water reservoir is a standard feature on the tabletop autoclave line.



D-Line Model	Chamber Dimensions ØxD (mm)	Chamber Volume (Liter)	External Dimensions WxHxD (mm)	
2840ELV-WR	280 x 460	31	530 x 1044 x 434	
3850ELV-WR	380 x 500	65	718 x 1082 x 537	
3870ELV-WR	380 x 690	85	718 x 1082 x 537	



The list of models on this page describes the available Vertical D-Line models with optional added-value features. **Fast Cooling (C)** Water cooling coil - Compressed air must be available for the necessary support pressure **Vacuum pump (P)** for pre-vacuum air removal and post-vacuum moisture removal for improved drying **Steam generator (G)** - Internal steam generator for fast and efficient heat up.

1	A pro	found	l expl	lanatior	of t	the o	options	above	and	their	purpose,	can l	be found	on th	ne D-	-Line o	ptions	page	

Part Number	Volume (Liters)	Voltage (V)	Phase	Cooling (C)	Vacuum Pump (PV)	Generator (G)
3870ELVC-380-D	85	400	3	х		
3870ELVCPVG-380-D	85	400	3	х	х	х
5075ELVC-380-D	160	400	3	х		
5075ELVCPVG-380-D	160	400	3	х	Х	х

VERTICAL AUTOCLAVES (ELV)

Autoclaves with Built-in Steam Generator

ELVC-G models & ELC-G models

Vertical and Benchtop laboratory autoclaves with built-in steam generators provide fast & efficient heat-up and complete drying. Chamber sizes from 85 to 160 liters.

Vertical Top Loading Models - Technical Data

D-Line Model	Chamber Dimensions ØxD (mm)	Chamber Volume (Liter)	External Dimensions WxHxD (mm)
3870 ELVC-G	380 x 690	85	730 x 1000 x 700
5075 ELVC-G	500 x 750	160	870 x 1090 x 770



3870 ELVC-G

5075 ELVC-G

SEMI-AUTOMTIC LABORATORY STERILIZER

Bench Top Autoclaves

The Tuttnauer bench-top, front loading laboratory autoclave is available in chamber size of 23 liters. ML models have a manual control panel.

Bench Top models - Technical Data

	D-Line Model	Chamber Dimensions ØxD (mm)	Chamber Volume (Liter)	External Dimensions WxHxD (mm)
2	2540 ML	250 x 400	23	510 x 365 x 545

👃 Erlenmeyer Flasks (ml) Loading Capacity

Model	250	500	1000	2000	3000	5000
2540	10	8	3	-	-	-





2540 ML

() Schott-Duran Flasks (ml) Loading Capacity

Model	250	500	1000	2000	3000	5000
2540	14	10	4	-	-	-

T-LAB ECO VERTICAL LABORATORY STERILIZER

T-Lab Eco was developed especially for educational institutions and research facilities. Designed with simplicity and economy in mind.

This vertical floor-standing autoclave covers the fundamental needs for general lab sterilization with the aim of increasing the productivity of your laboratory.

Offering the best universal capacity, together with the **optimization** of resources such as water, power and operating time results.

All T-Lab Eco devices feature the exclusive and technolgically advanced T-Connect, a cloud based IoT solution for your sterilization center.





Minimal Laboratory Resource Consumption



Sterilization Application

Intended for the sterilization of a wide range of liquids and solids such as glassware, metal utensils and other laboratory items.

This reliable workhorse is ideal for the general laboratory in need of easy operation, safety and cycle features for day-to-day needs.

Specifications	V60	V85
Chamber Volume (Litres)	60	85
Weight (kg)	111	120
Chamber Dimensions $\emptyset \times D$ (mm)	390 x 505	390 x 700
External Dimensions W × H × D (mm)	645 x 985 x 810	645 x 985 x 810
Shipping Dimensions $W \times H \times D$ (mm)	820 x 1250 x 900	820 x 1250 x 900
Ratings	Voltage: 220-240 VAC Single Phase	Voltage: 220-240 VAC Single Phase
Wastewater tank	3 Litres	3 Litres
Cooling water tank	6 Litres	6 Litres
Maximum Allowable Working Pressure	2.8 bar	2.8 bar



Equipped with unparalleled features, unique to T-LAB Eco

- High-resolution touchscreen
- Two PT100 sensors
- Built-in memory: 1000 cycles Built-in cooling fan

HORIZONTAL LABORATORY STERILIZER

Tuttnauer large laboratory autoclave sterilizers are designed to provide high quality repeatable performance and accountability for a wide range of lab applications, including: liquids, glassware, instruments, porous loads and other laboratory items.

Designed to Handle Diverse Load Types

The laboratory autoclaves are provided with 10 preset cycle programs and 20 customizable cycle programs that range in temperature from 105°C - 138°C. Isothermal cycles are optional. Standard programs are set for:

- Sterilization of Liquids
- Unwrapped instruments and glassware
- Wrapped instruments, packs and utensils

Improved Air Removal

Vacuum Cycles

The autoclave's vacuum pump efficiently removes residual air prior to sterilization, enabling effective penetration of steam.

The post-vacuum drying phase, at the end of the sterilization cycle, ensures complete drying of porous loads and hollow instruments. This guarantees that even the most difficult loads will easily reach sterility assurance levels.

Advanced Sterilization Cycles

FO Cycle – An additional challenge with liquid sterilization is the need to prevent extended exposure of liquid media to high temperatures which may harm the quality of the liquid media. The advanced FO optional feature assists in minimizing the time liquids are exposed to high temperatures during sterilization thereby protecting liquid media, saving your laboratory time and reducing energy consumption.

Disinfection/Isothermal Cycle (70-95°C) – A flexible low temperature cycle enables disinfection ("low" temperature isothermal). Temperature range settings are flexible within 70°C - 95°C range.



HORIZONTAL LABORATORY STERILIZER

Advanced Control System

Take advantage of Tuttnauer's sophisticated user-friendly control systems for repeatable high performance.

Standard Features

- 7" Multi-color touch screen panel
- Keypad control panel on second door of two door autoclaves with Bacsoft controller
- Stores the last 200 cycles in built-in memory (Bacsoft)
- Multiple access levels and user passwords to control access/ operation of the autoclave
- Diagnostic In/Out test (enables technician to check each system component separately)
- Sterilization Temperature range 105°C to 137°C
- PID (Proportional Integral Differential) pressure control
- Two PT100 sensors according to EN 61010-1, EN 61010-2-040

Optional Features

- 10" Multi-color touch screen
- 21 CFR part 11

Sophisticated Touch Screen HMI

- The HMI (Human Machine Interface) has been designed with the following considerations:
- Multi-color display for easier reading from a distance
- Multilingual (26 languages)
- Graphical display of Temperature and Pressure trend graphs

Fast Cooling

Tuttnauer's accelerated cooling technology increases the amount of cycles per day and protects the load by minimizing its exposure to high temperatures. Rapid cooling safely reduces cooling time by as much as 75% without compromising the load. After sterilization is completed, air is passed through a microbiological filter. Chamber temperature is decreased while pressure reduces and steam and condensate are drained.

Fast Cooling

Tuttnauer's accelerated cooling technology increases the amount of cycles per day and protects the load by minimizing its exposure to high temperatures. Rapid cooling safely reduces cooling time by as much as 75% without compromising the load. After sterilization is completed, air is passed through a microbiological filter. Chamber temperature is decreased while pressure reduces and steam and condensate are drained.

The jacket is filled with cold purified water to help cool down the chamber to a safe temperature. When the liquid's temperature reaches the final set temperature, the cooling stage is complete.

Sophisticated Touch Screen HMI

The HMI (Human Machine Interface) has been designed with the following considerations:

- Multi-color display for easier reading from a distance
- Multilingual (26 languages)
- Graphical display of Temperature and Pressure trend graphs



HORIZONTAL LABORATORY STERILIZER

A flexible Range of Sizes and Models

Tuttnaver offers various models, classified as Compact, Mid-Range and Large Capacity models. The chamber sizes range from 250 to 450 Liters.

Model 5596

Available with 2 vertical sliding doors

Model	Chamber Dimensions (WxHxD) mm	Chamber Volume (Liter)
5596-2V	508 x 508 x 970	250

Two configurations are available, each designed for specific needs: Waste sterilization & Liquid Sterilization

Waste

- Liquid Built in generator
- Jacket cooling
- Seperate connection chamber and iacket
- Cabinet
- PT100
- Biohazard filter

Cabinet

PT100

Built in generator

Seperate connection

chamber and jacket

Jacket cooling



Model 66120

Available with 2 vertical sliding doors

Model	Chamber Dimensions (WxHxD) mm	Chamber Volume (Liter)
66120-2V	610 x 610 x 1815	450

Two configurations are available, each designed for specific needs: Waste sterilization (Advanced) & Liquid Sterilization

L	iq	u	ic	1	

- Built in generator
- Jacket cooling
- Seperate connection chamber and iacket Cabinet
- PT100
- Biohazard filter

Cabinet

PT100

♦ BSL Bio-shield frame

Waste (Advanced) Built in generator

♦ Seperate connection

chamber and jacket

Jacket cooling

*This welded strip around the chamber provides you with the possibility to construct an airtight wall closure, to fulfill the demands for a BSL3 installation

Compact Sliding Door

TIVA WASHER DISINFECTORS

Lab Washer Series Complete laboratory process solutions. Tuttnauer is proud to introduce its lab washer series. This 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 washer disinfector in your lab awards maximum flexibility, sustainability, and an efficient driven solution for glassware treatment.

Tuttnauer's TIVA8 Lab line Washers contain unrivalled levels of efficiency that deliver on water and energy savings. The high-quality system is specifically designed for research intensive laboratory settings that offer automated cleaning and drying of typical laboratory glassware, as well as miscellaneous plastic items used in research facilities. Each model suits different needs, and all Tuttnauer lab washers offer efficient chamber sizes within a compact footprint. The flexibility of each machine is supported by intelligent controls and programmable cycles to clean most residues. Tuttnauer racks, baskets and accessories also enhance productive and effective wash cycles.

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)





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

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

TIVA WASHER DISINFECTORS

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.



Stainless steel door

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



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).

Technical Features
External dimension (WxDxH): mm
Chamber dimension (WxDxH): mm
Max pump flow rate:
Max drying fan flow rate with filter:
Max absorbed power:
Max number of dosing pumps for chemicals with flowmeters:
Chemical tank capacity:



TIVA10-1ML
650x700x1850 mm
560x585x800 mm
626 I/mn
150 m³/h
11,4 kW
4
5 Liter

TIVA WASHER DISINFECTORS

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. Also 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, in order to obtain an excellent drying result. A wide range of racks, nozzles and accessories complete this machine, 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).



TIVA10-1VL
680x700x1950 mm
560x585x800 mm
626 l/mn
150 m³/h
11,4 kW
4
5 Liter

TIVA15-1VL

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. 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. 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 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	
External dimension (WxDxH): mm	
Chamber dimension (WxDxH): mm	
Max pump flow rate:	
Max drying fan flow rate with filter:	
Max absorbed power:	
Max number of dosing pumps for chemicals with flowmeters:	
Chemical tank capacity:	



TIVA10-1VL
680x700x1950 mm
560x585x800 mm
626 l/mn
150 m³/h
11,4 kW
4
5 Liter



Tuttnauer

Your Laboratory infection control success is backed by **100 years of experience of global leadership**

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in v f d

