

# TECHNICAL SPECIFICATIONS AND UTILITIES

1400 & 1600						
Utilities	Values	Connections	Consumption			
			1400 TI	1400 TI SS	1600 TI	1600 TI SS
Water (1)	pressure: 2 to 6 bar flow rate: 20 to 100 l/min	20/27 screw joint	20 l	20 l	25 l	25 l
Compressed air	pressure: 6 to 8 bar filtering: 5 µ	20/27 screw joint	70 l	80 l	70 l	80 l
Steam	pressure: 2 to 6 bar	15/21 screw joint	35 kg	35 kg	40 kg	40 kg
Power supply	voltage: 3~400 + N or 3 ~230 50 Hz	bare cable	11 kW*	16 kW*	11 kW*	16 kW*
			4.5 kW**	6 kW**	21 kW**	21 kW**
Drying air	atmosphere	/	200 m³/h	250 m³/h	200 m³/h	250 m³/h
Drainage	gravity	smooth ø48	50 l/min	50 l/min	80 l/min	80 l/min

4500 & 4800						
Utilities	Values	Connections	Consumption			
			4500 TI	4500 TISS	4800 TI	4800 TISS
Water (1)	pressure: 2 to 6 bar flow rate: 20 to 100 l/min	20/27 screw joint	100 l	100 l	125 l	125 l
Compressed air	pressure: 6 to 8 bar filtering: 5 µ	20/27 screw joint	70 l	90 l	70 l	90 l
Steam	pressure: 2 to 6 bar	20/27 screw joint	70 kg	70 kg	70 kg	70 kg
Power supply	voltage: 3~400 + N or 3 ~230 50 Hz	hard wire to facility	6 kW**	7.5 kW**	6 kW**	17.5 kW**
			30 kW**	30 kW**	30 kW**	30 kW**
Drying air	atmosphere	/	/	200 m³/h	/	200 m³/h
Drainagegravity	smooth ø48		80 l/min	80 l/min	80 l/min	80 l/min

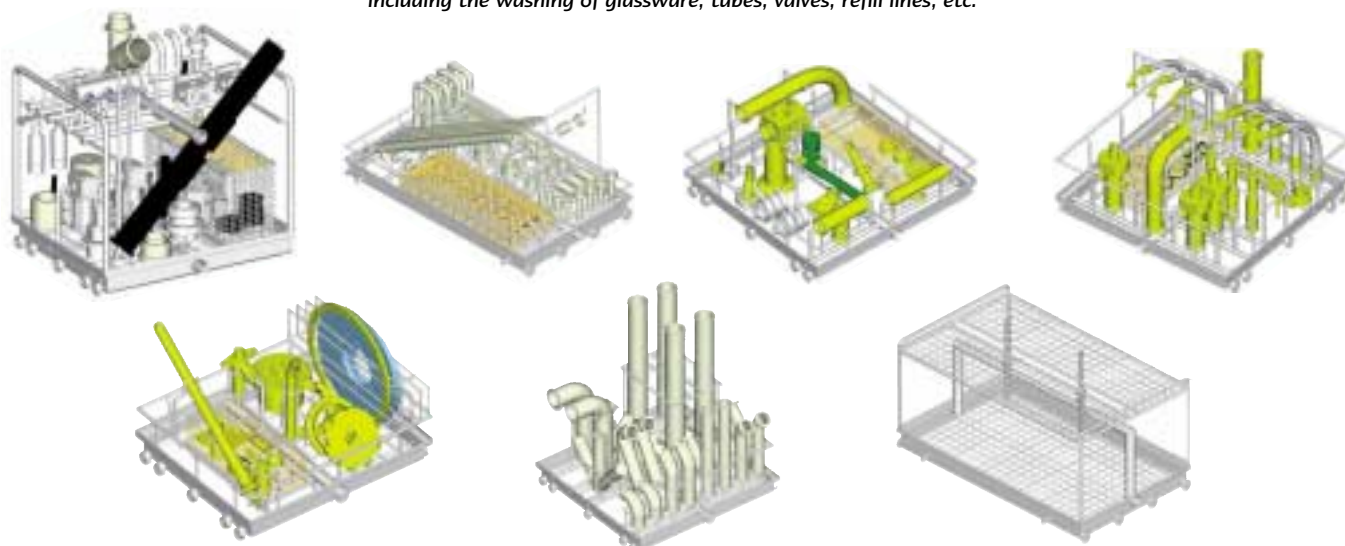
(1): for each refilling stage.

\*total electric power consumption in the case of steam heating.

\*\*total electric power consumption in the case of electric heating.

## Accessories

Numerous standard or customised accessories (using 3D design software) are available for various applications, including the washing of glassware, tubes, valves, refill lines, etc.



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# TI Range

A new range of professional washers



to better meet the needs of industry



## TI, A MODULAR RANGE

**16 microprocessor-controlled** washer models make up the TI range. LANCER offers numerous variations, either standard or optional, as well as several chamber sizes in order to meet the application needs and space limitations of all industries. The heavy-duty LANCER TI washers provide effective mechanical, thermal and chemical washing.

### USER-FRIENDLY PROGRAMMING

**Up to 40 easy-to-select standard washing programs** for the cosmetics, oil, chemical, and agri-food industries, as well as certain pharmaceutical industry applications.

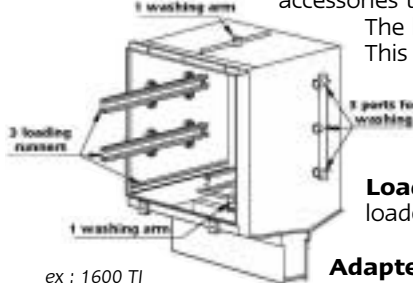
**Adjustable parameters:** program phases, temperature and time of each phase, water intake per phase, cleaning product dosage, drying temperature and time (for TI SS models). All of these parameters are easily adjusted (password-protected).

**Visual and sound alarms** in case of malfunction: self-diagnostics program.



### LOADING AND ACCESSORIES

**1-3 independent washing levels** (depending on model): The LANCER system allows independent accessories to be connected: simple basket or basket with injectors.



ex : 1600 TI

The baskets are interchangeable, regardless of the level.

This allows loads to be adapted according to the items being cleaned.

Items to be washed are held in place.

Can accommodate a customised multi-level washing rack for complex loads.

**Loading / unloading:** Mobile trolleys (optional) facilitate handling of loaded baskets both before and after washing.

**Adapted accessories:** LANCER offers a wide range of accessories and different types of standard baskets made of 304 L stainless steel, as well as baskets for specific applications (washing of glassware, tubes, valves, production tools, refill lines, etc.).

### MULTIPLE OPTIONS

**Traceability of cycles (printer + RS-232):** All washing cycles are recorded and printed out. The ticket issued by the printer allows the operator to verify and keep all information regarding the proper progress of the cycle, malfunctions, etc.

The TI series can be connected to centralised traceability systems via RS-232 output port on the washer's main board.

**Validation of cycles:** The TI range washers can be equipped with a LANCER validation monitor that allows you to validate each cycle in real time.

Each wash cycle parameter is verified and validated by the monitor's sensors. Printer and RS-232 output port included in the option.

**Chart recorder:** Different types are available to keep records of several cycle parameters.

**FAT and supply of IQ/OQ documentation.** On-site **SAT** provided by authorised technicians.



**Steam heating** (free option) for an accurate, fast and more economic adjustment of water heating temperature.

**Pump drainage,** drain discharge cooldown.

**HEPA filters** (99.995 % efficient) provide complete and particular free drying of all components.

**Flowmeters:** If the washer is equipped with a validation monitor, a system of flowmeters can be installed to measure the amount of cleaning product delivered by each peristaltic pump.

**Supplementary dosing pumps** for specific applications.

**Conductivity meter** designed to monitor the quality of the water from the last rinse.



## SIMPLE, RUGGED DESIGN

### Made with superior-quality materials:

Chamber, door, valves in 316 L stainless steel.  
Casing, pipework and wash pump in 304 L stainless steel.

### Door opening/closing:

Doors are equipped with a pneumatic locking mechanism. Opening and closing made easy by ergonomic handles and gas-filled jacks.

### Double heat and noise insulation:

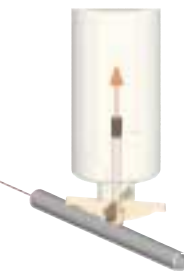
Protects the chamber and casing.

## INJECTOR DRYING SYSTEM

### Fast hot-air drying system on TI SS models:

- External: Drying by means of hot air blown into the chamber through washing arms.

- Internal: Forced air along the hydraulic circuit dries the interior of hollow parts through injectors. This integrated drying system does away with the need for an independent dryer and double handling of the glassware, with all the risks that this entails.



The 1400TI /TIDP and 1600TI /TIDP models are equipped with chamber drying as standard. The 4500TI /TIDP and 4800TI /TIDP models do not have drying.

## POWERFUL HYDRAULIC CIRCUIT

### The hydraulic circuit ensures mechanical washing power on several levels.

Its design is therefore very important. LANCER washers and accessories are designed to allow the water to circulate freely, primarily **thanks to the direct input at each washing level.**



A stainless steel recycling pump, protected against potential obstructions by means of a multiple filtering system, assures an abundant flow of water.

**Stainless steel washing arms** located at the top and bottom of the chamber assure perfect washing of the external surfaces of all items to be washed.

**Final rinsing** with purified (DI or RO) recycled water.

**Gravity drainage** for full drainability of the hydraulic circuit.

## LANCER'S STRENGTHS

**Proven know-how:** As the leader in critical washing for the pharmaceutical field (cGMP), LANCER supplies the research and production units of the largest pharmaceutical groups in the world.

It is with this same know-how that we have developed our range of TI washers for industry.

**LANCER offers the widest range on the market,** with a vast choice of washers and accessories including everything from built-in

underbench washers to large custom-built industrial machines.

## CLEANING PRODUCTS

### Automatic dosage of cleaning products:

The 1400 TI and 1600 TI washers have a compartment for the storage of two product containers.



**Two peristaltic pumps** automatically dispense cleaning product following each wash cycle phase. Product intake is pre-programmed and adjustable. Consumption of cleaning product is optimised and handling hazards are isolated.

All TI washers are equipped with **automatic level detectors.** Visual and sound alarms warn of low level.

