# Tamson Instruments Specification sheet

# TV2500

# ASTM D445 - ASTM D446 - IP 71 - ISO/EN 3104 - ASTM D1298



<del>Ф</del>	Stainless steel
	Otalilless steel
<del> </del>	Compact, small foot print
<del>•</del>	Levelling feet for spirit level
$\oplus$	RS232 communication
$\oplus$	Two decimals readout (0.01°C)
$\Phi$	Cooling coil
$\oplus$	Fluid level detection (float)

Item	Unit	TV2500	
P/N 230V/50~60Hz		19T1003	
P/N 115V/60Hz		19T1004	
Power	[kW]	1.5	
Heat rate water	[°C/min]	0.8	
Heat rate oil	[°C/min]	1.9	
Heating	[kW]	1.4 1.4	
Used materials inside bath		Stainless steel, brass bearings	
Range		Ambient120°C Ambient248°F	
Reading	[°C/°F]	Menu selectable	
Setting ±	[°C/°F]	0.01	
Stability ±	@50°C	0.02°C Water	
Stability ±	@100°C	0.02°C Oil	
Bath volume	[L]	25	
Top lid		Removable with four ø51 mm holes	
Opening bath	[mm]	185*155 (effective use)	
Depth	[mm]	300	
Length	[mm]	370	
Width	[mm]	204	
Height	[mm]	600	
Weight	[kg]	15	
CE	All models conform to CE regulation		

### General

The TV2500 is specially designed for tests that require precise temperature control like the determination of kinematic viscosity and sensor or thermometer calibration. The visibility through the bath is excellent.

The stainless steel construction ensures stable temperature control, which is further improved by a special stirring mechanism. The bath is fitted with adjustable feet for leveling. The cover of the bath has four round Ø51 mm openings with lids, for suspending glass capillary viscometers in holders.

# Span

The TV2500 operates from ambient .. +120°C (242°F). Sub-ambient temperatures can be achieved when using the built-in cooling coil in combination with tap water or a Tamson TLC10-3 cooling circulator. Built up of condensate may limit the practical use to about +5°C.

### **Software**

Use the standard RS232 interface and free TamCom® software to set parameters, program a temperature curve or log the bath temperature.

### **Accuracy**

The set point is adjustable in steps of  $0.01^{\circ}$ C. The overall system accuracy and homogeneity are better than  $\pm$  0.02°C, specified with water or oil during a measuring period of one hour.

## Temperature readout

Available in °C or °F.

### **European Pharmacopoeia**

Using Ubbelohde viscometer tubes, the bath conforms to the "Pharmaceutical 2.2.9, capillary viscometer method".

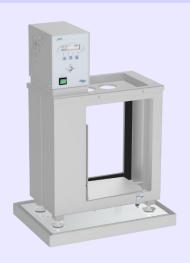
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### Accessories

### Safety

The bath conforms to CE regulations. It further is equipped with a mechanical adjustable and automatic over temperature safety thermostat to guarantee safe around the clock operation. When working above 50°C the safety window is advised to be used. The TV2500 is also equipped with a float to warn the user with an acoustic signal when the bath fluid is too low.



### Safety Window

When using the TV2500 at higher temperatures it is advised to mount a safety window. The safety window protects the user from heat radiating from the inside window.

When using the safety window, the user sitting in front of the window is protected against heat and fluid, in the very rare case the window might break. All our windows are made of very tough hardened glass. Use of a spill tray is also recommended to keep your lab clean. Dripping fluid from glass capillary viscometer or accidental spill during refilling the bath fluid is collected. The tray is provided with a 3/8" BSP inner thread valve.

TV2500 is standard included with:			
P/N	Picture Description		
2272407		Cover with 4 openings: - 4 x ø51 mm opening - 2 x ø12.5mm opening for thermometer	
23T2407		4 * lid for ø 51 mm opening	

4	Optional cover for TV2500:			
	P/N	Picture	Description	
			Cover with 3 openings: - 3 x ø60 mm opening - 2 x ø12.5mm opening for thermometer	
	23T2408		3 * lid for ø60 mm opening	

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# Accessories

Accessories				
P/N	Picture	Description		
02T0210		Glass safety window with clamps. For use at temperatures above 50°C.		
02T0200		Spill tray. Protects your lab against dripping and spilling during operation or when replacing bath fluid. The tray has a drainage with valve and 3/8" BSP connection.		
00T0909		Illuminator "Z41" stand alone (85 ~ 230V/50-60Hz)		
00T0050	<b>*</b> =	Cooling circulator TLC10-3 - 230V/50Hz		
00T0051		Cooling circulator TLC10-3 - 230V/60Hz		
00Т0052		Cooling circulator TLC10-3 - 115V/60Hz		
00T0565		Cooling circulator TLC15-5 - 230V/50Hz		
00Т0567		Cooling circulator TLC15-5 - 230V/60Hz		
00Т0570		Cooling circulator TLC15-5 - 115V/60Hz		
12T1075	The state of the s	Tubing with connectors and clamps to be used between a TLC and a TV		
10T6090		Timer, 8 positions		

# TV2500

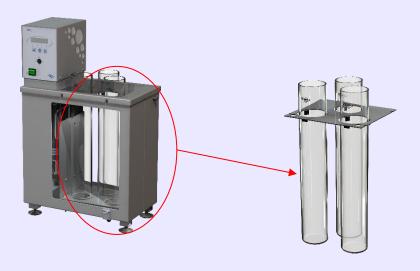
# Accessories

P/N	Picture	Description		
	П	Thermometer		
		ASTM no.	Part no.	Range°C
	- 8	Similar to 44C	25T0924B	+18.5 +21.5
		Similar to 46C	25T0939B	+48.6 +51.4
Thermometers	į į	Similar to 47C	25T0940B	+ 58.6 +61.5
	Ĭ.	S120C	25T0990B	+38.6 +41.4
	1	Similar to 121C	25T0991B	+98.6 +101.4
		Other ranges available on request		
00Т0239			Thermometer ho	older
10T6094		decimal reading, with range -40	precision ± 0.01° +140°C includin certificate.	external probe, three C, short PT-100 probe g a works calibration TT3B thermometer")
14T0303		Adapter to insert a	an E20 thermomet cover	ter in the opening of the
Viscosity accessories		viscometers, vi		cosity accessories", e.g. , bath fluids, general ndards, etc



# TV2500

# D1298 Set-up for Density Measurement by hydrometer



P/N	Picture	Description	
03T2119		Cover with 3 openings: - 3 x ø60.6 mm opening - 2 x ø12.5mm opening for thermometer	
09T0400		Density cylinder	
00Т0239		Thermometer holder	
00T0565		Cooling circulator TLC15-5 230V/50Hz	
00T0567		Cooling circulator TLC15-5 230V/60Hz	
00T0570		Cooling circulator TLC15-5 115V/60Hz	
Hydrometers		Please see specification sheet "ASTM D1298"	