

# Tamson Instruments

## Specification sheet

### TV3500

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



**Stainless steel**  
**Compact, small foot print**  
**Levelling feet for spirit level**  
**RS232 communication**  
**Two decimals readout (0.01°C)**  
**Standard cooling coil**

#### General

The TV3500 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 optional cover of the bath has nine round ø51 mm openings with lids, for suspending glass capillary viscometers in holders. This item needs to be bought separately.

#### Span

The TV3500 operates from ambient .. +120°C (242°F). Lower temperatures can be achieved when using the built-in cooling coil in combination with tap water or a Tamson TLC15-5 cooling circulator. Built up of condensate may limit the practical use to about +5°C.

Item	Unit	TV3500	
P/N 230V/50~60Hz		19T1005	
P/N 115V/60Hz		19T1006	
Power	[kW]	1.5	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		Ambient..120°C Ambient..248°F	
Reading		°C or °F	
Setting ±	[°]	0.01	
Stability ±	@50°C	0.02°C Water	
	@100°C	0.02°C Oil	
Bath volume	[L]	35	
Top lid		Optional with nine ø51 mm openings	
Opening bath	[mm]	400 * 120 (effective use)	
Depth	[mm]	320	
Length	[mm]	590	
Width	[mm]	216	
Height	[mm]	615	
Weight	[kg]	20	
CE		All models conform to CE regulation	

#### 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°C. The overall system accuracy and homogeneity are better than ± 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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#### 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.





#### Safety Window

When using the TV3500 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 windows are 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.

#### TV3500 is standard included with:









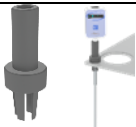

P/N	Picture	Description
03T2143		Cover with 9 openings: - 9 x ø51 mm opening - 2 x ø12.5mm opening for thermometer
		9 * lid for ø 51 mm opening

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#### Accessories


Optional accessories			
P/N	Picture	Description	
02T0211		Glass safety window with mountings. For use at higher temperatures.	
13T3013		Spill tray. Protects your lab against dripping and spilling during operation or when replacing bath fluid. The tray has a drainage valve 3/8" BSP connection.	
00T0909		Illuminator "Z41" stand alone (85~230V/50~60Hz)	
00T0565		Cooling circulator TLC15-5 230V/50Hz	
00T0567		Cooling circulator TLC15-5 230V/60Hz	
00T0570		Cooling circulator TLC15-5 115V/60Hz	
12T1075		Tubing with connectors and clamps to be used between a TLC cooling circulator and a TV bath.	
Thermometers		Thermometer	
		ASTM no.	Part no.
		Similar to 44C	25T0924B
		Similar to 46C	25T0939B
		Similar to 47C	25T0940B
		S120C	25T0990B
		Similar to 121C	25T0991B
Other ranges available on request			
00T0239		ASTM Thermometer holder	
E20 Thermometer		Please see specification sheet "E20 thermometers"	
14T0303		Adapter to insert an E20 thermometer in the opening of the cover	
10T6090		Timer, 8 positions	





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#### Accessories

P/N	Picture	Description
<b>Viscosity accessories</b>		Please see specification sheet "Viscosity accessories", e.g. viscometers, viscometer holders, bath fluids, general purpose reference standards, etc
<b>07T0085</b>		Lever detector/float

D1298 Set-up for Density Measurement by hydrometer		
P/N	Picture	Description
<b>03T2128</b>		Cover with 5 openings: - 5 x ø60 mm opening - 2 x ø12.5mm opening for thermometer
<b>09T0400</b>		Density cylinder
<b>00T0239</b>		Thermometer holder
<b>00T0565</b>		Cooling circulator TLC15-5 230V/50Hz
<b>00T0567</b>		Cooling circulator TLC15-5 230V/60Hz
<b>00T0570</b>		Cooling circulator TLC15-5 115V/60Hz
<b>Hydrometers</b>		Please see specification sheet "ASTM D1298"