

Specifications for Adjustable Cloud and Pour Point Bath

ASTM D97 - ASTM D2500 - ISO 3015 - ISO 3016 - IP 15 - IP 219



- ⊕ Drain to empty bath
- ⊕ Wheels fitted for easy transport
- ⊕ Compact, low noise
- ⊕ Auto tune, high precision
- ⊕ Position for six jackets (TLC40-14)
- ⊕ Position for four jackets (TCC-B)

General

Apparatus to determine the cloud and pour point manually. The TLC40-14 or TCC-B are single and adjustable circulator baths with position for six or four jackets. The pour point describes a procedure for testing the fluidity of a petroleum product at a temperature. The cloud point is defined as the temperature of a liquid specimen when the smallest observable cluster of wax crystals first appears upon cooling.

Cooling medium

The used cooling system is ozone friendly and doesn't contain any CFK/HCFK gas.

Control mechanism

With the compressor running continuously, the fluid temperature is regulated through an electronic controlled heater.

Span

The TLC40-14 operates from -40°C to +20°C (-40°F..68°F) and optional available is an extended minimum temperature: -45°C .. +20°C / -49°F .. + 68°F. The TCC-B operates from -88°C to +20°C (-126°F to +68°F).

Item	Unit	TLC40-14	TCC-B
P/N 230V/50Hz		00T0520	00T0310
P/N 230V/60Hz		00T0522	00T0311
P/N 115V/60Hz		00T0525	On request
Power	[Watt]	2400	2600 max
Used materials inside bath		Stainless steel Chrome plated coil	
Range		-40.. +20°C -40.. +68°F	-88..+20°C -126..+68°F
Reading		Standard °C, °F on request	
Setting ±	[°]	0.1	
Stability ±	[°C]	Better than 0.05	
Heating	[W]	1550 (1 heater)	1400 (1 heater)
Bath volume	[L]	14..15	11
Pump pressure	[mBar]	300 max*	1000 max
Pump cap	[L/min]	10 max*	16 max
Compressor	[W]	400	2*400
Heat removal	[W]	@-10° 1220	@-64° 400
	[W]	@-20° 880	@-73° 350
	[W]	@-30° 520	@-82° 300
	[W]	@-40° 250	@-84° 250
Opening bath	[mm]	240 x 160	175 x 130
Depth bath	[mm]	150	240
Length	[mm]	810	770
Width	[mm]	460	380
Height	[mm]	770	780
Weight	[kg]	65	73
CE		Conforms to CE regulation	
* 24T0399: Optional pump (85~260V) pressure max 1 Bar, flow max 16 ltrs/min. The system standard is equipped with: 04T0025: Standard pump 230V/50-60Hz 04T0030: Standard pump 115V/60Hz			

Accuracy

The set point is adjustable in steps of 0.1°. The overall system accuracy is better than ± 0.05°C. The temperature readout is standard available in °C, on request in °F.

Pump

A pressure pump provides circulation in the bath or via an external circuit. The pump pressure is 300 mBar and 10 liters per minute (no counter pressure) for TLC40-14. For the TCC-B the pump pressure is 1000 mBar and 16 liters per minute. With the TCC-B, the pump speed can be adjusted.

Safety

The bath conforms to CE regulations. It also is equipped with a mechanical adjustable and resettable safety thermostat to guarantee safe around the clock operation.

Table 1: Necessary accessories

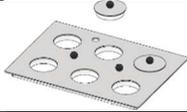
P/N	Picture	TLC40 -14	TCC-B	Description
03T2171		1		Insulated cover for six positions with insulated lids.
03T2173			1	Insulated cover for four positions with insulated lids.
14T0235		6	4	Jacket

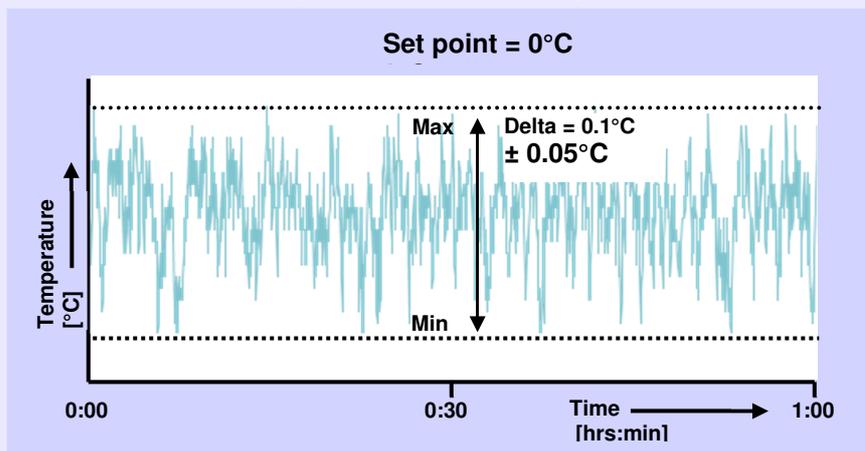
Table 2: Accessories

P/N	Picture	TLC40 -14	TCC-B	Description
09T0142		1		Test jar for cloud and pour point, case of 24 pieces.
31T0012		6	4	Test jar for cloud and pour point, 1 piece.
31T0421		2		Felt gasket (pack of ten pieces).
31T0422		2		Felt disk (pack of ten pieces).
31T0013		2		Cork for test jar (P/N 31T0012 or 09T0142), pack of ten pieces.
31T0423		2		Cork for bath thermometer.
25T0904B		6	4	ASTM S5C thermometer with special low-hazardous filling and works certificate with at 0°C.
25T0905T		6	4	ASTM 6C thermometer with special low-hazardous filling and conformity certificate.
25T0946B		6	4	Thermometer similar to ASTM 61C with special low-hazardous filling and works certificate at 100°C.

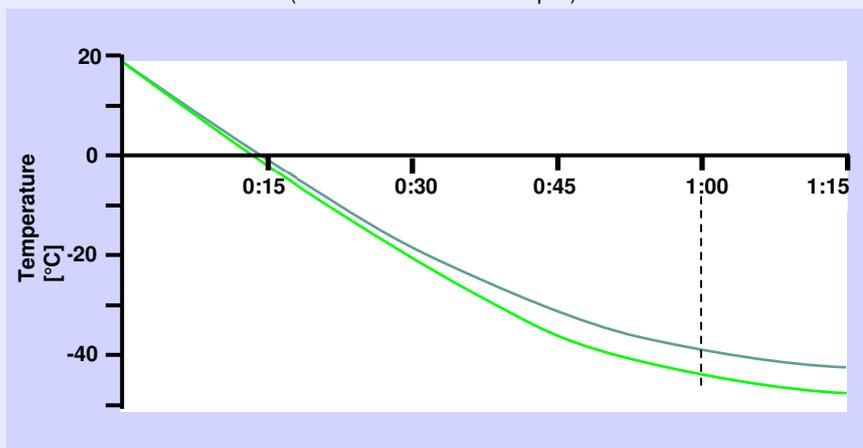
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Graphs

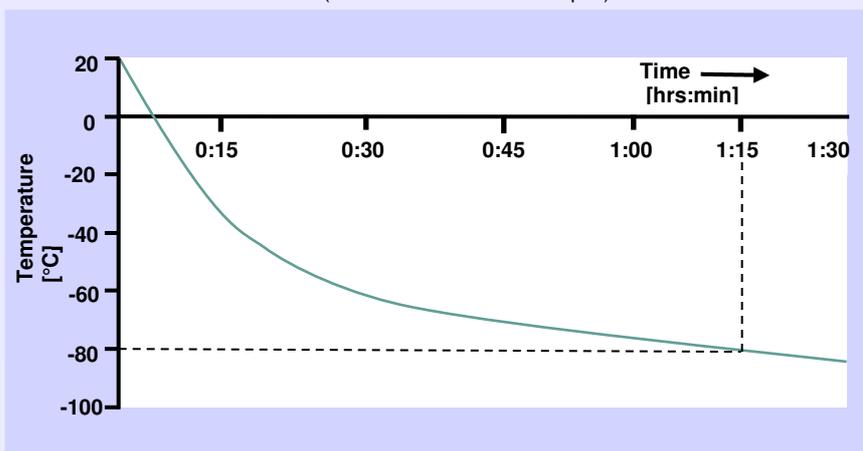
Temperature stability
(methanol used as bath liquid)



Cooling down TLC40-14 and TLC40-14
"extended range"
(methanol used as bath liquid)



Cooling down TCC-B
(methanol used as bath liquid)



D97 D2500