

### 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). 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	N.A.		
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.					

#### 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.

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#### Accessories

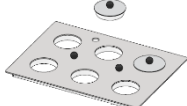








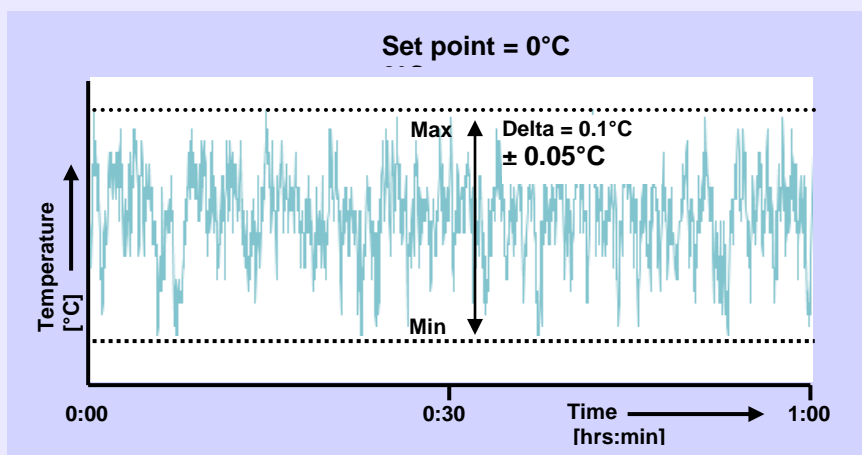
Table 1: Necessary accessories				
P/N	Picture	TLC40 -14	TCC-B	Description
03T2171		1		Insulated cover for six positions with insulated lids.
03T2173			1	Insulated cover for four positions with insulated lids.
14T0235		6	4	Jacket

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		1		Cork for bath thermometer, pack of ten pieces.
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.

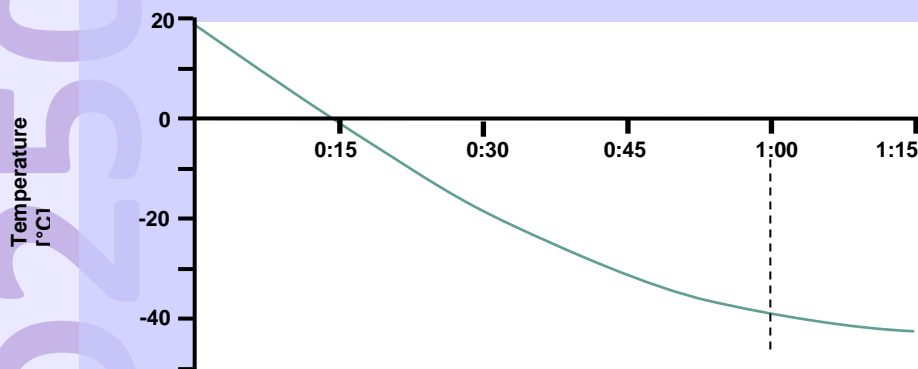
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#### Graphs

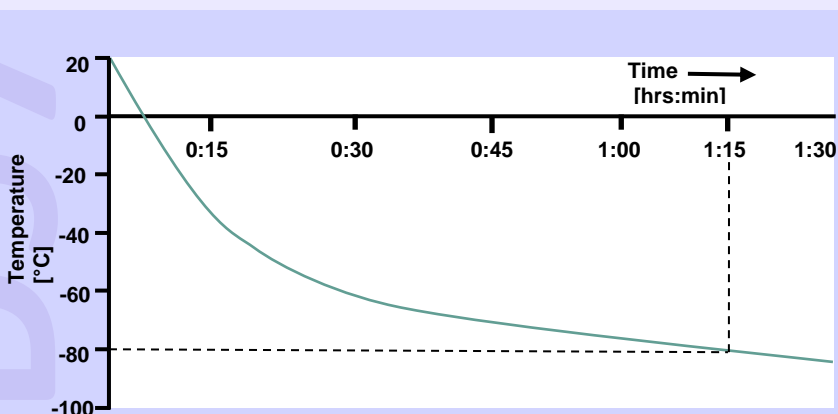
##### Temperature stability (methanol used as bath liquid)



##### Cooling down TLC40-14 (methanol used as bath liquid)



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



TLC40-14



TCC-B