

Pour Point of Crude oils - Procedure B

ASTM D5853 - IP 441



- ⊕ **Stainless steel bath**
- ⊕ **Cooling coil**
- ⊕ **Bath drain**
- ⊕ **Easy to operate**
- ⊕ **Position for 6 test cylinders (9 optional)**

Item	Unit	TC16
P/N 230V/50-60Hz		31T0671
P/N 115V/60Hz		31T0861
Power	[kW]	1.5
Range	°C °F	Ambient .. 250 Ambient ..482
Reading		°C or °F
Setting	[°]	0.1
Stability	[°C]	0.02
Heating	[kW]	1.4
Bath volume	[L]	16
Bath opening	[mm]	6 x ø51 mm (9 x ø51 optional)
Bath depth	[mm]	220
Length	[mm]	480
Width	[mm]	295
Height	[mm]	480
Materials	Used inside bath: stainless steel 304, brass	
CE	Conforms to CE regulation	

General

The test method covers the determination of the pour point temperatures of crude oil down to -36°C. This specification sheet covers the baths needed for this test method to preheat the sample. Tamson also supplies a single adjustable pour point bath. Please see the separate D97 and D2500 specification sheet.

The TC16 oil bath is used to preheat the sample in the pressure vessel at 105°C. The cover of the oil bath has six openings, each opening comes with a lid and hook for suspending a pressure vessel (P/N 14T0100). The temperature range is from ambient +5°C to 250°C. Please see table 1 for more information. Accessories for this test are also supplied by Tamson, please see table 2. Optional is a cover with nine openings to test up to nine samples (P/N 03T2311), please see table 3.

For procedure A and B, an additional TC16 water bath as in table 1 can be used to preheat the sample in a pour point jar at 48°C or at a temperature 12°C higher than the expected pour point, whichever is higher. Please see table 4 for the required accessories.

Accuracy

The insulation of the bath and electronic design result in a very stable working temperature of $\pm 0.02^\circ\text{C}$. The set point can be set in steps of 0.1°C in the range of 0°C up to 250°C ($-148..482^\circ\text{F}$). The accuracy on the display is displayed in 0.1°C . However the controller has an internal accuracy of 0.01°C .

Temperature readout

Standard available in $^\circ\text{C}$, on request in $^\circ\text{F}$.

Pump

When not used for pour point determinations, the pump can be used to circulate the bath content to an external application.

Safety

The bath conforms to CE regulation. It is further equipped with a mechanical resettable safety thermostat. Optional is a low liquid float (P/N 07T0080).

Alternative

We also offer a TC40 bath with a cover for 18 positions (P/N 03T2313). Please see table 5

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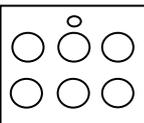
Table 1: Apparatus P/N 31T0671 or P/N 31T0861 standard consists of:			
P/N	Picture	Quantity	Description
00T0671		1	TC16 circulator bath, 230V/50-60Hz
00T0861			TC16 circulator bath, 115V/60Hz
13T8000		1	Top lid with six ø51 mm openings and a thermometer opening
14T0101		6	Lid and mounting hook

Table 2: Accessories for Pour Point of Crude Oil Procedure B			
P/N	Picture	Suggested quantity	Description
14T0100		6	Pressure vessel (test cylinder with o-ring). Cylinder is supplied with works certificate.
08T0001		1	Bath fluid silicon oil 20..150°C 20ltr
25T0908BW		1	ASTM thermometer similar to 9C with blue filling (low-hazardous to ship). Temp. range -5°C - +110°C:0.5°C. Supplied with works certificate.
31T0423		1	Cork for bath thermometer, pack of ten pieces
24T0385		6	O-ring for test cylinder (P/N 14T0100)

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Table 3: Optional for ASTM D5853 Procedure B

P/N	Picture	Suggested quantity	Description
03T2311		1	Top lid with nine ø51 mm openings. Please separately order 3 * P/N 14T0101 additionally.
14T0101		3	Lid and mounting hook for P/N 03T2311

Table 4: Required accessories for water bath for procedures A and B

P/N	Picture	Suggested quantity	Description
14T0109		6	Test tube holder test jar conform ASTM D5853
31T0012		6	Test jar ASTM D5853
31T0013		1	Vented cork for test jar (P/N 31T0012). 10 pieces.

Table 5: Alternative apparatus for 18 positions

P/N	Picture	Quantity	Description
00T0681		1	TC40 230V/50-60Hz
00T0851			TC40 115V/60Hz
03T2313		1	Cover with 18 * ø 51 mm openings
14T0101		18	Lid + mounting hook; number of pieces to be ordered separately, depending on number of test cylinder used