

NEWSLETTER

Tamson Instruments

March 2020

ASTM D5853 test method

The ASTM D5853 test method covers the determination of the pour point temperatures of crude oil down to -36°C. In this test method two procedures are described to measure the upper (procedure A) and lower (procedure B) pour point of crude oil. The maximum and minimum pour point temperatures provide a temperature window where a crude oil, depending on its thermal history, might appear in the liquid as well as the solid state.

Tamson ASTM D5853 constant temperature bath

Tamson has been asked by its distributors to develop a bath for the mandatory, preliminary heating of the crude oil samples. 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. The TC16 temperature range is from ambient +5°C to 250°C.

For procedure A and B, an additional TC16 water bath can be used to preheat the sample in a pour point glass jar at 48°C or at a temperature 12°C higher than the expected pour point, whichever is higher. For this application a special stainless steel holder with insulated handle can be used to insert the pour point jar in the water bath. Optional is a cover with nine openings to test up to nine samples. Please see our [specification sheet](#) for more information.

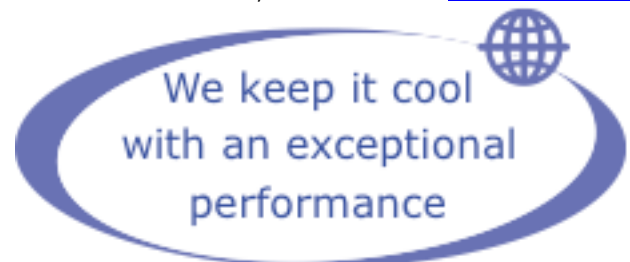
After preliminary heating, the test specimen is cooled at a specified rate and examined at intervals of 3°C for flow characteristics. The lowest temperature at which movement of the test specimen is observed is recorded as the pour point. The test method prescribes a manual procedure to measure the pour point. Tamson also supplies a single adjustable pour point bath with all describes accessories for this method. Please see the separate [D97 and D2500 specification sheet](#).



Primary benefits of utilizing the Tamson ASTM D5853 constant temperature bath:

- Equipped to hold six (optionally nine) pressure test cylinders
- Lids with hook to hold the pressure test cylinder have insulated handles to safely work at high temperatures
- Very precise temperature control (better than $\pm 0.02^\circ\text{C}$)
- Temperature range from ambient +5°C to 250°C
- Bath is equipped with a small fan enabling to work near ambient temperatures without the need of a cold flow from an external cooling circulator
- Metal parts made from stainless steel
- Bath is equipped with a pump to circulate the bath medium to an external application
- Bath can be safely emptied using the bath drain
- Robust construction, ensuring a long life time

If you are interested in our ASTM D5853 bath, please contact your local Tamson dealer, or contact us at sales@tamson.nl.



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