



EMULSION TEST-WATER SEPARABILITY TEST APPARATUS-AUTOMATIC LIFT & PLACEMENT-ASTM D1401

Compliance with following International Standards:

ASTM D1401

Purpose:

This test method covers measurement of the ability of petroleum oils or synthetic fluids to separate from water. This test method provides a guide for determining the water separation characteristic of oils subject to water contamination and turbulence. It is used for specification of new oils and monitoring of in-service oils.

Brief Construction Details:

Following accessories will be the part of standard supply.

1. Heating bath
2. Common Stirring paddles (Common electric motor)
3. Four test cylinders of 100 mL capacity
4. Touch screen HMI & PLC Control system with Automatic Lifting and Placement arrangement



The detail descriptions of these parts and accessories are given below.

1) Heating Bath:

- Double walled water-bath with inlet provision
- Rectangular shape
- Stainless steel structure
- Outer body fabricated from Mild Steel material - Powder coated in attractive shades
- Inner chamber fabricated from Stainless Steel - 304
- Heavy insulation between inner chamber and exterior body
- **Capable enough to maintain bath temperature at $54^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$ and at $85^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$**
- Bath section is fitted with efficient heating elements and PT-100 temperature Sensors
- Temperature is controlled by individual Microprocessor based dual display digital PID Temperature indicator cum controller
- Heating bath is equipped with 4 different test holes, 4 test cylinders and stainless Steel stirrer
- Entire Unit can accommodates 4 test positions - 4 test cylinders
- Temperature control accuracy : $\pm 0.2^{\circ}\text{C}$
- Temperature display : LED
- Temperature range **5°C above ambient to 100°C**
- Supplied with over temperature protection safety cut-off system
- Unit is also equipped with **RPM indication and speed regulator**

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GST TIN No. : 24AABCE4018L1ZU
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IEC No. : 0813026598 Dt. 04/03/2014
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2) Stirring paddles:

- Material : Stainless steel material
- Length, mm (in) : 120 ± 1.5 (43.4 ± 1.16)
- Width, mm (in) : 19 ± 0.5 (3.40 ± 1.64)
- Thickness, mm (in) : 1.5 (1.16)
- Revolution per minute : **1500 ± 15 rpm**

3) Test cylinders:

- No of cylinders supplied : 04 Numbers
- Graduation : 5 to 100 mL in 1.0-mL divisions
- Capacity : 100-mL capacity
- MOC : Made of heat-resistant glass
- Inside diameter of cylinder : Between 27 - 30 mm throughout its length
- Overall height of cylinder : 225 - 260 mm

4) Touch screen HMI & Programmable PLC Controller with Automatic Lifting and Placement arrangement:

- Eliminates human and manual error
- **Eliminates the need of manually lifting the stirrer at the end of completion of test**
- **Automatically lifts the stirrer at the end of test cycles**
- **Eliminates the need of continuous operator's presence**
- Just initiate the test cycle and rest everything will be taken care of
- **Programmable Touch screen HMI & PLC controller with process sequences as per ASTM D1401 Guidelines**
- Offers Quick and smooth operation
- Easy cleaning and low maintenance

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