



# Model 3065 Wettability Tester Datasheet

Cement Testing/ Blenders and Mixers (Slurry Prepared and Conditioning) Equipment



# **Model 3065**

### WETTABILITY TESTER

#### A Critical Tool for Oil Well Cement Testing

The bonding of oil-well cement to casing and well bore surfaces is critical to a successful well-completion. When using non-aqueous drilling fluids, such as oil-based and synthetic fluids, the ability of the spacer or pre-flush to water wet these surfaces becomes critical. The Chandler Engineering Model 3065 Wettability Tester is essential for evaluating the wettability of spacers and pre-flushes that are intended to water wet the surfaces to which cement is expected to bond.

The Model 3065 Wettability Tester provides all the functionality of the Model 3060 Constant Speed Mixer, PLUS the ability to evaluate the oil/water phase transition of oil based drilling fluids as they interact with spacer and/or pre-flush systems. The instrument measures wettability by continuously monitoring the electrical conductivity of the fluids subjected to heat and shear at atmospheric pressure.



Oil-external fluids are not electrically conductive, whereas water-external fluids are conductive. As the spacer or pre-flush is added to an oil based fluid, the electrical conductance of the bulk mix will change. This change is displayed via an easy to read digital meter. With the Model 3065, the water-based, water-external fluid is used to establish a reference conductance. The conditioned oil-external fluid is then placed in the pre-heated mixer cup and stirred. The water-based fluid referenced is then added until the digital conductivity meter indicates a stable water-wetting state. In addition to the digital display, the operator is able to visually ascertain the compatibility of the mud and spacer during this test.





#### **FEATURES**

- ✓ Provides Both Mixing and Wettability Testing Capabilities
- ✓ Push Button Simplicity
- Two Programmable and One Adjustable Speed Functions
- Automatically Maintains
  Constant Shear Rate During
  Mixing
- ✓ Long-Life Mixing Blades and Stainless Steel Vessel



The control panel of the tester is safely and conveniently located above the mixing vessel. The control panel includes: the speed controls, the conductivity meter display, the temperature jacket controller, a display of the mixer's current rpm speed and a timer with automatic shut-off capabilities to guard against over-mixing.

## **Specifications**

| Model | Container | Constant    | Adjustable   | Maximum | Weight |    |      | Dimensions |                  |
|-------|-----------|-------------|--------------|---------|--------|----|------|------------|------------------|
| #     | Volume    | Speed       | Speed        | rpm*    | Net    |    | Ship |            |                  |
|       |           | Selections  | Range        |         | lb     | kg | lb   | kg         | WxDxH            |
| 3065  | 1 quart / | 4,000 rpm & | 1,000 rpm to | 18,000  | 45     | 20 | 80   | 36         | 11 x 16 x 28     |
|       | 1 liter   | 12,000 rpm  | 18,000 rpm   |         |        |    |      |            | (28 x 41 x 70cm) |

<sup>\*</sup>Maximum rpm will vary with line voltage and mixer blade wear

Temperature Range 75 to 194°F / 24 to 90°C via a heating jacket

Speed Selection Switch Three push button switches to quickly select the desired operation

Speed Selections Two independently adjusted speeds, factory preset

One user-adjustable, continuously-variable speed

Display Speed is displayed directly in rpm

Temperature is displayed in °F or °C

Digital Wettability Indicator

Container Material Stainless Steel

Mixing Blades Proprietary, Hardened Long-Life Metal

**Utilities** 

Power 110 or 220 VAC ±15% 50/60 Hz. 10A

Manufacturer's specifications subject to change without notice



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