

Components

#130-26	Heating Element, 150 Watt, 115 Volt
#130-26-1	Heating Element, 150 Watt, 230 Volt
#130-31	Thermostat, 50 - 300°F
#130-38-2	Red Lens
#130-38-3	Lamp
#130-38-5	Power Cord, 115 Volt
#130-76-10-10	Stainless Steel Cup*
#130-38-8	Gasket (Fish Paper)
#135-18	Socket Set Screw
#135-43	Indicator Lamp Base
#152-38	Power Cord, 230 Volt
#154-00	Metal Thermometer, 5", 0° - 220°F
#164-34	Plug, 230 Volt
#171-32-1	Knob

*The stainless steel cup is only included with the following thermocups:

- #130-38-30
- #130-38-35

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Thermocup

#130-38-20: 115-Volt
#130-38-25: 230-Volt

#130-38-30: With Removable Stainless Steel Cup,
115 Volt

#130-38-35: With Removable Stainless Steel Cup,
230 Volt

Instruction Manual

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Ver. 3

Introduction

Thermocups are designed for controlling the temperature of a mud sample while taking readings with a rheometer or viscometer. Normal heat-up time is 15 minutes and the pilot light turns off when the well reaches the set temperature. Drilling fluid has a low thermal conductivity, so it must be agitated in order to reach a uniform temperature within a reasonable length of time. The holes in the shelf of the OFITE viscometers have been positioned to hold the heated cups at a 45° angle to the line of the instrument for better accommodation of thermometers and power cables.

For extra convenience and portability, #130-38-30 and #130-38-35 thermocups contain removable stainless steel cups for holding the fluid.

Procedure

1. Plug the cord into the proper voltage outlet (115 or 230 Volts AC), and place a stem thermometer in the hole on the side of the heating well.
2. Turn the thermostat clockwise to about three-fourths the total range (approximately 100°F or 38°C). Allow 15 minutes for heat up. The pilot light will turn off when the well reaches the set temperature.
3. After the thermocup has pre-heated, place the test fluid in the well. Stir the fluid frequently and also check the fluid temperature with the thermometer. When the fluid approaches the desired test temperature, turn the thermostat back $\frac{1}{4}$ turn to avoid overheating.

When using the removable stainless steel cup, to create better thermal transfer, add about 5 mL water to the well. Once the cup is inserted into the well, the water should rise and fill about 75% of the space between the well and the cup.

4. Place the assembly on the base of the viscometer. The holes in the shelf of the OFITE viscometer have been relocated to hold the cup at a 45° angle to the line of the instrument to give clearance for a 5 inch metal stem thermometer.
5. Raise the shelf or lower the instrument to the proper depth as indicated by the scribed line on the rotor sleeve. Re-check the temperature and record the viscometer dial readings. A temperature adjustment may be necessary if the instrument bob and rotor are cold.

Maintenance

Clean the thermocup thoroughly after each use. If your thermocup has a stainless steel cup, remove it and wash it with soap and water. Otherwise, wash the thermocup well with soap and water, being careful not to immerse the thermocup in water.

Caution:

1. Do not leave viscometer rotor immersed for long periods in the mud as vapors will travel up into the bearings and condense, causing corrosion.
2. Never heat fluid over 200°F (93°C).
3. Never immerse thermocups in water when cleaning.