Centrifuges for Oil & Fuel Testing

Petrolab offers laboratory centrifuges for the testing of oils and fuels. These centrifuges are commonly used to measure: water and sediment in crude oil, fuel oil and middle distillate fuel; the precipitation number of lubricating oils and insolubles in used lubricating oils. These centrifuges were designed with the following ASTM methods in mind: D91, D96, D893, D1796, D2273, D2709 and D4007.

**Benchmark C Laboratory Centrifuge**
The Benchmark C is the first state-of-the-art oil centrifuge with Class I, Division 2 certification. It is ideal for laboratory settings or refineries using 100 mL capacity tube configurations. It is usually installed on benchtops for testing crude oil or refined petroleum products. The fully insulated centrifuge prevents heat loss and allows for more accurate temperature control. Its sturdy outer case is finished with a solvent-resistant powder coating. With a motor capable of operating at 2300 rpm and real-time temperature readings, this unit has unmatched precision in basic sediment and water (BS&W) determination.

**Benchmark S Laboratory Centrifuge**
The Benchmark S Heated Laboratory Centrifuge is an economical alternative to the Benchmark C unit and offers features distinct from the Melton unit. It meets or exceeds the various requirements for ASTM and API standards. It is designed for determining basic sediment and water (BS&W) content at indoor locations without Class I, Division 2 requirements. It is optimal for laboratory settings or refineries using 100 mL capacity tube configurations. It is preferably installed on benchtops and used to test crude oil or refined petroleum products.

**Melton Laboratory Centrifuge**
The Melton oil centrifuge sets the oil testing industry standard. The unit includes four integrated heated cups for crude oil samples, which provide maximum heat transfer. It is compatible with pear-shaped (B), long cone (C), short cone (D) or capillary (E) style centrifuge tubes and available in 115VAC or 220VAC. It features robust, durable construction (steel case) that protects the interior in harsh, corrosive environments such as offshore platforms. The consistent motor speed reduces process variation. The built-in tachometer provides an accurate, direct, mechanical RPM reading. This unit is designed for hard-wiring.
Heater Options

**Criterion Water Bath Heater**
The Criterion Water Bath Heater distributes 900 watts of heating power. The unit is designed to provide precise heating of solvents and samples prior to use in an oil centrifuge or other equipment. The dimensions of the units have been carefully determined so that the unit will fit comfortably in the fume hood of a laboratory. It has a resistive heating element with RTD temperature feedback to a temperature controller. The resistive heating element is controlled by a solid-state relay. This allows the temperature controller to fail “OFF” if a signal is lost and prevents runaway heating. The Criterion series uses water to transfer heat. The unit can accommodate two 1-gallon bottles of solvent, 14 Long Cone (C) centrifuge tubes, 14 Capillary (E) tubes or 12 Short Cone (D) style tubes. It is preprogrammed to a temperature set point of 140°F (60°C) and can maintain that set point with unrivaled precision.

**TradeMark Heater**
The TradeMark Heater is a dry block unit built for use on a laboratory benchtop. All units are certified for Class I, Division 2 Groups A, B, C and D Hazardous and Ordinary Locations. Due to these certifications, the unit requires hard-wiring. The unit is designed to provide precise heating of solvents and crude oil samples prior to use in a centrifuge or other equipment. It has a resistive heating element with RTD temperature feedback to a temperature controller. The resistive heating element is controlled by a solid-state relay. This allows the temperature controller to fail “OFF” if a signal is lost and prevents runaway heating. The TradeMark series uses aluminum to transfer heat to glass centrifuge tubes. It is offered in 110 or 220VAC and available in finger (A), pear-shaped (B), long cone (C) or short cone (D) style tube configurations. The digital programmable temperature controller regulates the temperature and is adjustable from 72°F to 250°F. This allows versatility for use in multiple applications. It features an insulated body to minimize heat loss and heat up the unit more efficiently. The dry bath helps prevent corrosion.