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## **SPECIFICATIONS**

### **Thermo-oxidation Engine Oil Simulation Test**

### **TEOST®**

### **ASTM D6335 (33C Protocol)**

#### **Principle:**

- Simulates the effect of engine operating conditions on the oxidation and deposit-forming tendencies of engine oils, especially in the high temperature Turbocharger area.
- Oil sample treated with catalyst is pumped over a heated Depositor Rod forming deposits. The weight of the Depositor Rod after the test is subtracted from its pre-test weight and added to the particulate weight collected by filtering the oil remaining. The results are reported in milligrams.

#### **Dimensions:**

- Bench-top: ~65 lbs. (30 kg), (13"(w) x 19.5"(d) x 22"(h)) or (33 x 50 x 56 cm)

#### **Voltage:**

- 120 VAC, Single Phase, 5 Amp., 50/60 Hz. *(Also available in 220 VAC)*

#### **Operating Temperatures:**

- Reactor Temperature - 100°C ( $\pm 1^\circ\text{C}$ )
- Depositor Temperature Cycle: 200°C to 480°C at designated time intervals

#### **Sample Volume:**

- Total - 250 mL
- Actual Volume Tested - 116 mL (100 mL plus 16 mL left in the lines after flushing.)

#### **Test Parameters:**

- 12 Heating Cycles: 9.5 minutes per cycle for a total test time of 114 minutes
- Depositor Rod: Precision manufactured steel
- Pump Rate: 0.45 mL/min. or 0.40 g/min.
- Moist Air Flow Rate: 3.6 mL/min through H<sub>2</sub>O
- N<sub>2</sub>O Flow Rate: 3.6 mL/min through H<sub>2</sub>O
- Iron Naphthenate: 100 ppm

#### **Safety:**

- Current Limiting Fuses
- Over-temperature Cut-out Fuse
- Protective Heat Shield

#### **Test Procedures (Specifications):**

- ASTM D6335
- ILSAC GF-2 - 'High-Temperature Deposits'
- API 'SJ' category
- Included in DaimlerChrysler Factory-Fill Specification



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