



CERTIFICATE OF TEST

For
Semi-Micro Oxygen Combustion Vessels
Serial _____

ASTM

The Semi-Micro Oxygen Combustion Vessel has an internal volume of 22 mL. It is designed to handle small samples liberating up to 1200 calories per test. The size of these vessels deviates significantly from the type of oxygen bombs used for routine fuel testing. As a result, the specific test regime outlined in ASTM E144-94 (2006)E1 cannot be strictly followed. However, to ensure the safety of this vessel, Parr Instrument Company certifies that this vessel has satisfactorily passed hydrostatic and proof tests as described below.

Pressure Equipment Directive

All details of design, material, construction, and workmanship of this vessel confirm to Article 3, Paragraph 3 of the Directive 97/23/EC of the European Parliament and The Council of 29 May 1997 on the approximation of the laws of the Member States concerning Pressure Equipment.

Test Date _____ Signed _____

Hydrostatic Test

Following a trial pressurization in which no measurements were taken, deflection measurements were taken at the midsection of the cylinder during two tests in which 2700 psi water pressure was applied at room temperature. If any of the vessel parts fail to resume their original dimensions once the pressure was released, the vessel will be rejected as unsafe.

Proof Test

A pellet of compressed benzoic acid weighing 0.2 ± 0.02 grams was fired in the vessel using 40 atm (4.0 MPa) with measurements taken at the midsection of the cylinder before and after firing. Any observed leakage or failure of any of the vessel parts to resume their original dimensions after firing would have been cause for rejection.

Periodic Test

It is recommended that the hydrostatic and proof tests prescribed in this method shall be repeated after each 5000 firings or at more frequent intervals if the vessel shows evidence of damage or deterioration from corrosion overheating, or from any other cause. Re-test and re-furbishing services can be obtained by returning the vessel to the Parr Instrument Company if the required test facilities are not otherwise available to the user.

Parr Instrument Company

211 Fifty Third Street

Moline, IL 61265