

**SISCO**<sup>TM</sup>  
**INSTRUMENTS**



**SEMI  
AUTOMATIC  
MICROPROCESSOR** | **BOMB  
CALORIMETER**

# SPECIFICATIONS

**Used for determination of combustion of heat of calorific value of the fuel & other organic material. Designed as per specification of Institute of Petroleum BS 1016 standard IS no. 1350/1966.**

*Bomb Calorimeter Apparatus provide a simple and inexpensive method for determination of heat of combustion of organic matter and the calorific value of solid & liquid fuel. The outfit supplied is complete for analysis as per the method recommended by British Standard Institution. All parts of the outfit have been finished and tested according to the specification laid down by Institute of petroleum and British Standard Institute. It comes with all essential accessories like, Bomb, Calorimeter vessel with bomb support, water jacket, stirrer, Automatic Microprocessor unit etc.*

## **TESTING OF BOMB**

*Each Bomb is tested before it leave the factory in accordance with requirements of the institutes of petroleum (I.P.12/63T Appendix 1) and works certificate is issued with each Bomb . This certificate gives the results of hydraulic testing under a pressure no 300 atmospheres (4400p.s.i) maintained for a period of ten minutes without sign leakage. The maximum deformation must not exceed the specified limits.*

## **CALORIMETER VESSEL**

*The vessel is made of copper and is chromium plated, or S.S. includes a Bomb Support that Ensures proper positioning of Bomb in the vessel.*

## **WATER JACKET**

*The water container of jacket is made of copper and is chromium plated both inside outside or S.S. The top is closed by an ebonite cover. A terminal block is fitted to the top container so that connection can be made from the control.*

## **OFFSET STIRRER**

*The stirring mechanism supplied gives sufficient turbulence for effective stirring whilst no heat imparted to the calorimeter water. It consists of an impeller stirrer driven at a constant speed of approximately 800 r.p.m. The offset arrangement whereby the motor drives the impeller via a bell precludes any possibility of heat transference between motor and calorimeter vessel contents.*

# FEATURES

*This state-of-the-art calorimeter system provides precise and efficient calorific value measurements. It is equipped with advanced features to streamline operations and ensure accurate results.*



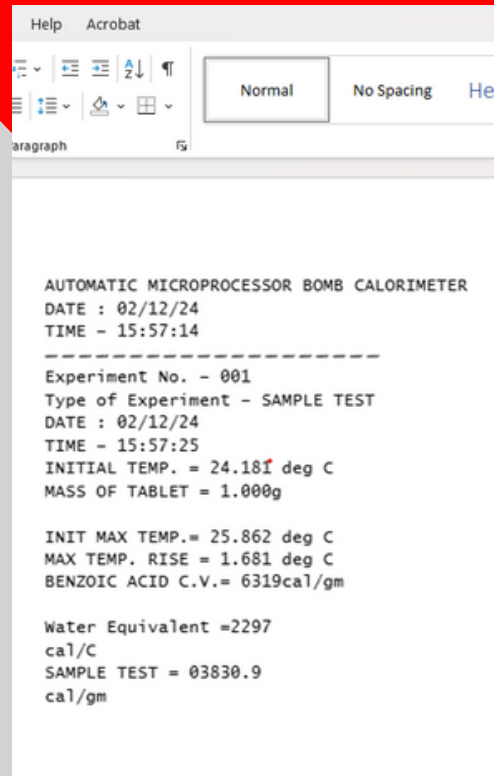
*With cutting-edge technology and a user-friendly interface, it simplifies testing and delivers detailed reports. This makes it an ideal choice for laboratories and industries requiring high-quality calorific analysis.*

- *Microprocessor-based automatic measurement of calorific value.*
- *Automatic calculation of calorific value and water equivalent.*
- *16x4 line LCD display (blue color).*
- *Large jumbo LCD display.*
- *Built-in printer.*
- *Soft-touch 16-key keypad.*
- *Tablet feedable weight feature.*
- *Comprehensive test report printout with date and time.*
- *Alarm for firing and upon test completion.*
- *Fuse wire open indication.*
- *Selectable test types: water equivalent test & sample test.*
- *Internal data logger with computer interface.*
- *PC software for data recording.*
- *Printout of the setting values.*
- *Soft power-on feature for the system.*
- *Reset button for the next sample.*

# SAVED DATA



- Save data in M. S. Word format
- Appropriate details are saved
- Easy to save
- Proper information provided.



AUTOMATIC  
MICROPROCESSOR  
BOMB CALORIMETER  
DATE - 09/11/19  
TIME - 17:11:41

## REPORT

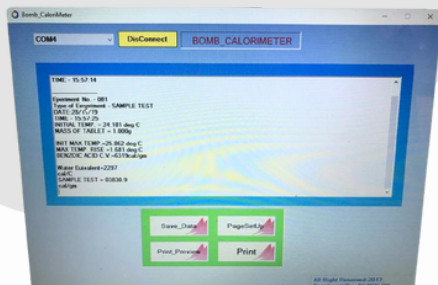
SAMPLE TEST  
DATE - 09/11/19  
TIME - 17:14:25  
INITIAL TEMP.  
= 31.173 C  
MASS OF TABLET  
= 1.000 g  
MAX INIT.TEMP  
= 32.959 C  
MAX RISE TEMP  
= 1.786 C  
BENZOIC ACID CV  
= 6319 (cal/gm)  
WATER EQUIVALENT  
= 2370 (cal/C)  
CALORIFIC VALUE  
= 04202.5 cal/gm

# TEST RESULT PRINTOUT



- Printout of Result with full details
- Data saved in Printed format

# SOFTWARE FOR COMPUTER INTERFACE



- Providing software for data storage
- Easy to use and install
- Save data and print it out.
- Easily connect the computer with the bomb calorimeter.

## ACCESSORIES

- Pressure valve (Oxygen Cylinder Gas Regulator) ..... 1 pc
- Spanner..... 1 pc
- Valve key..... 1 pc
- Connecting rubber pipes (one small and one large) ..... 2 pc
- Pressure gauge with stand..... 1 pc
- Tablet making machine with die & Mould..... 1 set
- connecting cord..... 1 set
- Temperature sensor..... 1 pc
- Microprocessor Digital control and firing unit ..... 1 pc
- Motorized Stirrer..... 1 pc
- SS Calorimeter with Bakelite lid..... 1 pc
- Copper Inner Jacket..... 1 pc
- Rubber 'O' ring (large & small) ..... 8 pc
- Nichrome wire (10mtr.) ..... 1 roll
- Ignition threads (15mtr.) ..... 1 roll
- S.S. Bomb Vessel with S.S. Crucible..... 1 set
- Pressure release Nut..... 1 pc
- Safety valve with stand (including extra accessories) ..... 1 set
- Rubber tube for connecting Bomb Vessel for Filling Gas..... 1 set
- Benzoic acid..... 50 gm
- Operation manual..... 1 file
- CD for Installation Software for computer or laptop..... 1 CD

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