|  |  |
| --- | --- |
| **Combustion Laboratory Unit with oil Burner** | **Name of the equipment:** Combustion Laboratory Unit with oil Burner**Make & Model:**PA HILTON, UK & C492 & c492B**I-Stem Registration ID-** **3224911** **Category of Instrument**Advanced Educational training system**Types of Analysis / Testing**Combustion Efficiency Analysis Air-Fuel Ratio and Excess Air calculationComparison of Fuel Types**Application:** Combustion Efficiency Studies Flue Gas Analysis**Description of Instrument**The Combustion Laboratory Unit C492 by P.A. Hilton is an advanced training system designed to provide hands-on experience in combustion processes using both gas and oil burners. This unit is widely utilized in educational settings for studying combustion efficiency, burner operation and energy conversion. |

**Booking Details**

|  |  |
| --- | --- |
| **Book through I-STEM:** <https://www.istem.gov.in/>**Slot Booking Link**[I-STEM Slot Booking link for External User](https://www.istem.gov.in/equipment-info/24911/Combustion-Laboratory-Unit-with-Oil-Burner) | **Booking available for**Internal and External Both**Requisition form for** [Internals](https://randc.nitc.ac.in/pdf/instruments/med/20.%20Internal.pdf)[Externals](https://randc.nitc.ac.in/pdf/instruments/med/20.%20External.pdf) |

**Contact Details**

|  |  |  |
| --- | --- | --- |
| **Faculty In-charge:** Dr. T. J. Sarvoththama Jothi**Email ID:**tjsjothi@nitc.ac.in**Phone number:**0495 228 6419 | **Technical Staff:** Abhilash Aabhilasha@nitc.ac.inDhaneesh D Cdhaneeshdc@nitc.ac.inAthulkrishna K R athulkrishnakr@nitc.ac.in | **Department -** MED**Office Email ID**medoffice@nitc.ac.in**Location**Thermal Science Laboratory, Department of Mechanical Engineering**Lab Phone No**0495-2286449 |

**Features, Working Principle and Specifications**

|  |  |
| --- | --- |
| **Features of the equipment*** Dual-Fuel Capability
* Water-Cooled stainless steel combustion chamber
* Integrated Flue Gas Analyzer
 | **Unique features/Measurement capabilities, if any*** Real-Time visual flame analysis through quartz windows
* Built in safety systems
 |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)*** Integrated Instrumentation
* Designed with safety, the unit includes flame monitoring sensors that shut off the fuel supply in the event of flame failure
* Optional High-Specification Gas Analyzer
* Special safety features
* Dual-Fuel Capability
 | **Measurement/Sample specifications:** * Compatible Fuels: Kerosene, gas oil or similar light fuel oils.
* Compatible with natural gas of LPG (Propane/butane)
 |

**Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions**

|  |
| --- |
|  |

**User Charges Rs. (GST Extra)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test Details** | **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| NA | NA | NA | NA | NA |
| NA | NA | NA | NA | NA |