**Film and Dropwise condensation unit**

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|  | **Name of the equipment:** Film and Dropwise condensation unit**Make & Model:**SolTeq Solution & Sdn.BHD, HE 178®**I-Stem Registration ID-** **3224903** **Category of Instrument**Educational training system**Types of Analysis / Testing**Heat Transfer Coefficient DeterminationEffect of Surface CoatingsImpact of Operating Conditions**Application:** Educational DemonstrationsApplied to improve the design of condensers in power plants and refrigeration system**Description of Instrument**The SolTeq HE 178 Filmwise and Dropwise Condensation Unit is an educational apparatus designed to demonstrate and analyse the two primary modes of steam condensation: Filmwise and dropwise. |

**Booking Details**

**Contact Details**

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| **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/24903/Unsteady-Heat-Transfer-Unit-and-Flim-and-Dropwise-Condensation-Unit) | **Booking available for**Internal and External Both**Requisition form for** InternalExternal |

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**Features, Working Principle and Specifications**

**Contact Details**

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| **Features of the equipment*** Dual Condenser Design
* High-Quality Construction of condensers
* Integrated Instrumentation
 | **Unique features/Measurement capabilities, if any*** Dual Condenser Design for Comparative studies
* Integrated Temperature and Flow Measurement
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| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)*** Steam Chamber made of Borosilicate Glass cylinder
* Condenser Diameter: 12.7mm; Length:120mm
* Coiled heater with thermal protection, Power:3kW
* Air Extraction System: Includes air cooler, separator, and water jet vacuum pump.
* Pressure Switch to turn off the heater when chamber pressure exceeds 1.20 abs bar
 | **Measurement/Sample specifications:** * To measure the pressure within the steam chamber
* Typically, distilled water is used to generate steam for the condensation process
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**Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions**

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

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