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|  | **PRESSURE AGING VESSEL**  **PRESSURE AGING VESSEL**  **Name of the equipment:**  Pressure Aging Vessel  **Make & Model:**  PRENTEX- PAV9500  **I-Stem Registration ID-**    **Category of Instrument**  Characterization and Testing  **Types of Analysis / Testing**  Used for aging paving asphalt binders  **Application:**  It is used in the asphalt industry for the aging of paving asphalt binders, specifically for testing and evaluating their performance and durability under various environmental conditions.  **Description of Instrument**  It is a laboratory instrument used for the accelerated aging of paving asphalt binders. It consists of a pressure vessel, air supply system, and temperature control system, designed to simulate the effects of time and temperature on asphalt binders. |

**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 | **Booking available for**  Internal and External Both  **Requisition form for**  [Internals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf)  [Externals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf) |

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| **Features, Working Principle and Specifications**  **Features of the equipment**   * Pressure vessel * Air supply system * Temperature control system | **Unique features/Measurement capabilities, if any**   * Simulates real-world aging conditions * High-pressure vessel (up to 350 psig) * Precise temperature control (50°C to 180°C) * Real-time data logging |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * Pressure: 350 psig (2.41 MPa) * Temperature: 50°C to 180°C (122°F to 356°F) * Power: 10-amp, single-phase, 100-125 volt AC * Air Supply: Regulated compressed air (2.10 MPa) * Dimensions: 60" x 36" x 24" (152 cm x 91 cm x 61 cm) | **Measurement/Sample specifications:**   * Sample size: 10 TFOT sample pans * Sample type: Asphalt binders * Temperature control: 50°C to 180°C (122°F to 356°F) |

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

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| The Prentex PAV Model 9500 requires:   * Sample type: Asphalt binders * Sample quantity: 10 TFOT sample pans * Pre-preparation: None required * Sample state: Liquid or semi-solid   Guidelines for Sample Submission:   1. Collect a representative sample from the production batch. 2. Store and label the sample properly. 3. Submit the sample to the testing laboratory in the original container. |

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

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