**BASIC HYDRAULIC SYSTEM- WAVE FLUME 40M X 2M X 2M**

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|  | **Name of the equipment:**  Basic hydraulic system & Wave maker unit  **Make & Model:**  Allied Engineering company  **I-Stem Registration ID-**  3222332  **Category of Instrument**  Testing  **Types of Analysis / Testing**  Fabrication  **Application:**   * **Wave Behavior:** Reflection and transmission analysis. * **Model Testing:** Scale models of wave energy converters and coastal protection structures. * **Structural Impact:** Pressure and force studies on coastal structures.   **Description of Instrument**  • Wave flume dimensions 40m\*2m\*2m , Paddle unit holding frame , Plunger unit height maintain unit ,Capable of generating regular waves with wave height from 3 to 8 cm and period ranging between 0.7 to 1.4 s |

**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/22332/Wave-Flume-40m-x-2m-x-2m) | **Booking available for**  Internal and External Both  **Requisition form for**  [Internals](https://randc.nitc.ac.in/pdf/instruments/bsed/Internal-Samples-Requisition-Form.pdf)  [Externals](https://randc.nitc.ac.in/pdf/instruments/bsed/Updated-External-Samples-Requisition-Form.pdf) |

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

**Features, Working Principle and Specifications**

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| **Features of the equipment**  ✔ **Wave Generation System** with a versatile paddle unit ✔ **Adjustable Plunger Unit** for precise height control ✔ **Capable of Generating Regular Waves** with controlled height and period | **Unique features/Measurement capabilities, if any**  ➤ **Wave Reflection & Transmission Analysis** ➤ **Scale Model Testing for Coastal & Offshore Structures** ➤ **Pressure & Force Measurement on Coastal Structures** |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * **Wave Flume Dimensions:** 40m × 2m × 2m * **Structural Components:** Paddle unit holding frame, plunger unit height adjustment mechanism * **Wave Generation:** Regular waves with controlled parameters * **Wave Parameters (Wave Height & Wave Period)** | **Measurement/Sample specifications:**   * **Testing Capability:** Scale model testing * **Instrumentation Setups:** Must be arranged based on testing requirements |

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| * **Sample Type:** **Scaled model for wave testing** * **Pre-preparation:** Model should be well-constructed for stability * **User Instructions:** Necessary instrumentation must be specified before testing * **Testing & Analysis Details** * **Types of Samples Analyzed:** Scale models of coastal structures, wave energy converte |

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

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| **Sl no** | Type of Analysis / Testing | **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 1 | Testing | 2000/day | Rs 1500/hr | Rs 2000/hr | Rs 5000/hr |
| 2 | Pre-testing installations | NA | Rs 2000/day | Rs 5000/day | Rs 10000/day |
| 3 | Post testing removal of models and other setup (no charge for first 3 working days) | Rs 2000/day | Rs 5000/day | Rs 5000/day | Rs 10000/day |