**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
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**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 |