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Product Name :	**Product Code :**
Advanced Hydrology Study System	ALABS-A104-493

Description :

Advanced Hydrology Study System

1. A self contained floor standing apparatus for hydrology and fluvial geomorphology demonstrations, comprising:

• A 2m x 1m stainless steel tank, tiltable using a dual linked jacking system

• 8 stainless steel spray nozzles mounted on an adjustable height gantry

• A stilled tank providing a formed flow river inlet

• Two flowmeters (3L/min & 5L/min) to measure and adjust the inlet flows

• An outlet tank allowing both water and sediment flow to be measured

• Two French drains, two well points and 20 manometer tapping points linked to a manometer bank

• A large plastic sump tank plus a recirculating pump

2. Experimental capabilities include:

• Run-off hydrographs from model catchments

• Draw-down curves for one well and two well systems

• Ground water flow and hydraulic gradients

• Model stream flow in alluvial material

• Formation and development of river features over time

• Sediment transport, bedload motion, scour and erosion

3. A version is available with instrumentation to measure both water and sediment run-off in real time. The package included data logging and educational software, (requires a customer provided PC).

Description:

The unit comprises a sand tank, made of stainless steel, measuring 2 metres by 1 metre. Water may be input to the sand tank from spray nozzles located above the tank (simulating rainfall), from an inlet tank simulating a river flow or from two french drains buried in the sand at either end of the tank. The water is output either from an outlet tank and flow measurement system located at the end of the main sand tank, from one or both of the two wells located in the tank, or one or both of the French drains.

A large plastic sump tank is located under the sand tank.

Capabilities:

- Determination of run-off hydrographs from model catchments including multiple storms, moving storms, effect of reservoir storage and land drains
- Construction of draw-down curves for one or two well systems in a sand bed
- Hydraulic gradients in ground water flow .Investigation of model stream flow in alluvial material
- Formation of river features and development over time
- Sediment transport, bedload motion, scour and erosion

Features:

- Stilled inlet tank provides developed river flow conditions, allowing the full length of the tank to be used

for river simulations

- Novel outlet tank design for water flow and sediment flow measurement
- Stainless steel sand tank
- Dual jacks provide adjustable tilt
- Adjustable spray nozzle height
- Use of fine grade sand allows detailed feature development
- Single grade of sand for all defined demonstrations, no need to change the sand
- Control and measurement of inlet flows
- Flexible configuration allows a wide range of simulations
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- Computer data logging option for sediment and water outlet flow measurement