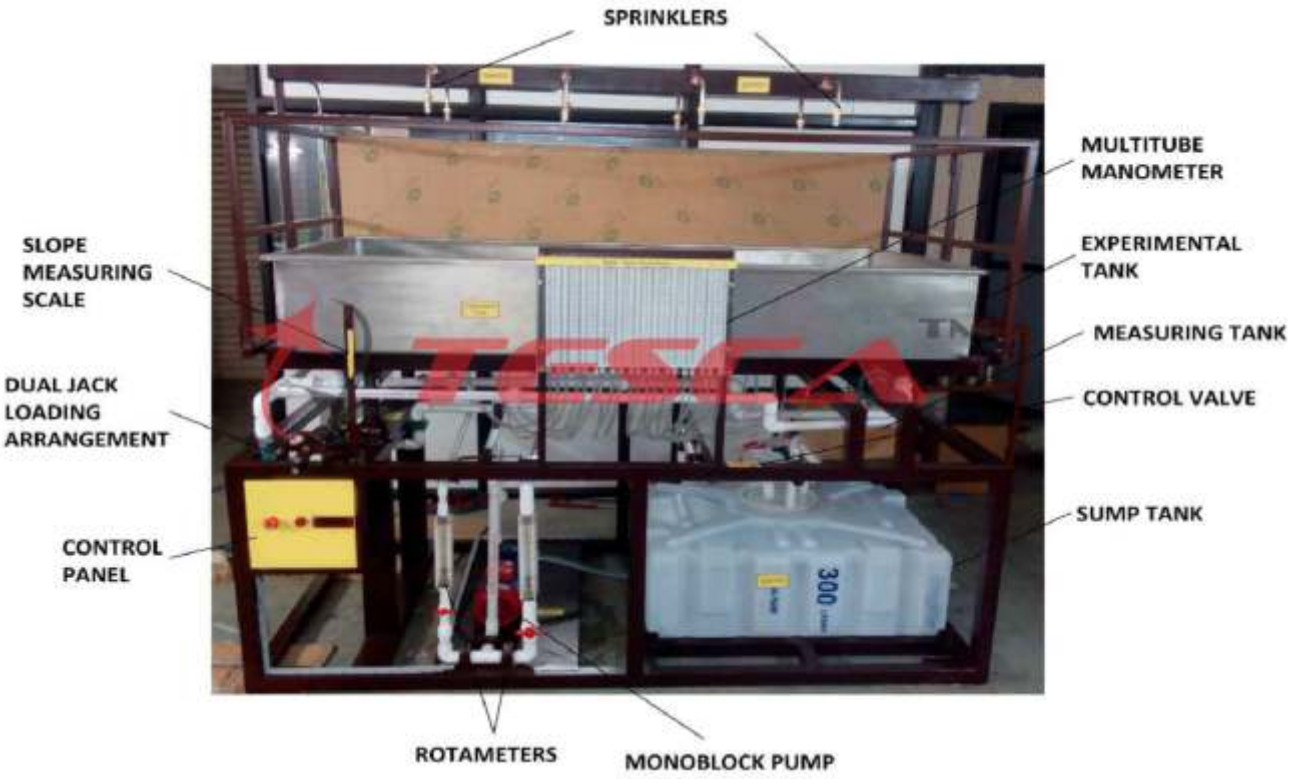

Features:

- Ability to take many measurements quickly without having to wait for natural rain.
- Ability to work with constant controlled rain, thereby eliminating the erratic and unpredictable variability of natural rain
- Data Acquisition System as an optional accessory.

System Description:

Tesca Rainfall Simulator consists of a metal stand that is used to support spray head assembly which consists of Water sprinklers. The unit is used with its accessory tray for laboratory experiments which is enclosed with Sight Glass. In use, water is pumped from the holding tank through the control valve & flow meter to the water sprinklers. The Water circulating pump is used to feed the water into the nozzle assembly through the pipe. For use in the laboratory electrical and water supplies are required.

List Of Experiments:

- The relative protection afforded by different plant densities
- Studies of relative Soil Erosion
- Studies of soil infiltration characteristics
- Erosion and runoff from up and downslope row crops.

System Specifications:

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

(a) SS catchment sand tank choices: 1mx1m/2mx1m/3mx2m/6mx2m; Depths from 400mm to

Note: Specifications are subject to change.

Tesca Technologies Pvt. Ltd.
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700mm. Stainless steel tank, tiltable using a single or dual linked jacking system, optionally with a hydraulic jack.

(b) 4 or 6 or 8 stainless steel spray nozzles mounted on an adjustable height gantry

(c) A stilled tank providing a formed flow river inlet

(d) Two flow meters (3L/min & 5L/min) to measure and adjust the inlet flows

(e) Circulating centrifugal pump: 0.5HP ~ 2HP, 1Ph or 3Ph, 2 to 8 Bar, Pressure head 6m to 12m @ flow rate 1800LPH ~ 2400.

(e) Acrylic outlet tanks allowing measurement of water and sediment flow

(f) Two French drains, two well points, and 10 to 20 manometer tapping points linked to a manometer bank

(g) SS sump tanks connected to a recirculating pump

(h) Fine grade 2mm to 5mm sand (Not usually supplied other than the special request, to be procured locally)

System Components:

- Metal stand.
- Water Sprinklers.
- Water Circulating Pump.
- Water Storage Tanks.
- A horizontal tray placed on a metal stand.
- Flowmeter & control valve.

Optional:

- DAQ version is available with instrumentation to measure both water and sediment run-off in real-time. The package includes 4 flow Sensors, 8 Level Sensors, Datalogger, LabView 14.0 educational software, (requires a PC).
- 'Sci-Cal' Computer Control Software & Interface (Check separate specifications sheet)

Optional Accessories:

- Digital sensors & indicators for Flow, Pressure
- Data logging software

Operation & Maintenance Manual:

A self-explanatory operating & maintenance manual will be provided. This will include Theory, operating procedure, standard results, maintenance procedures, and detailed experiments with test results

Service Required At Site:

- Electric Supply 230V 50Hz. With proper earthing.
- Pure clean water supply

Note: Specifications are subject to change.

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