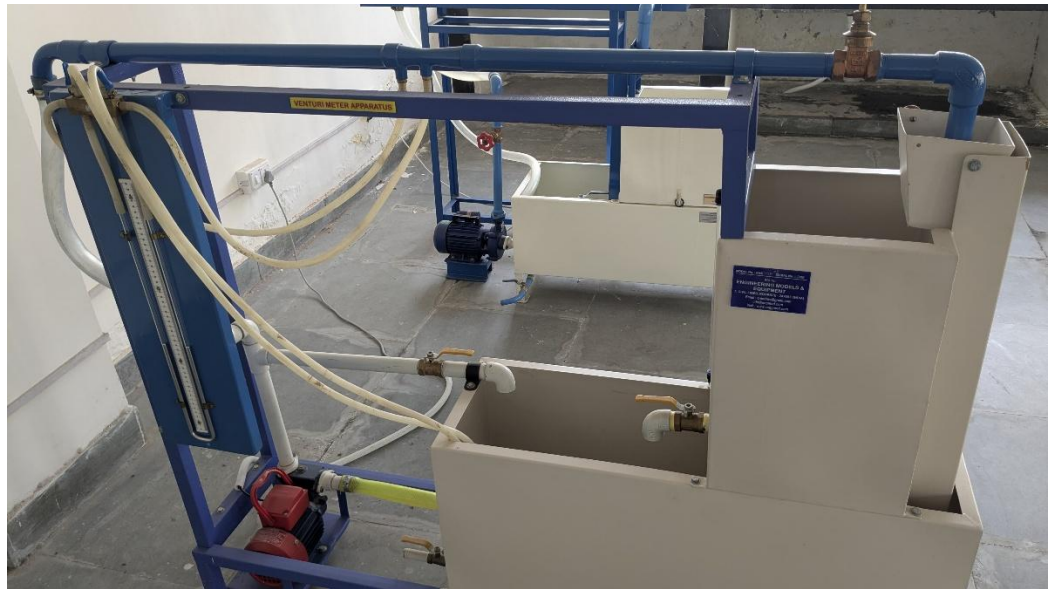





DEPARTMENT OF CIVIL ENGINEERING
FLUID MECHANICS LABORATORY
COLLEGE OF TECHNOLOGY

Sardar Vallabhbhai Patel University of Agriculture & Technology Meerut 250110 (UP)

List of Equipment's



| S. No. | Name of Equipment | Technical Specification | Figure of Equipment/Model/Device |
|--------|-------------------------------------|--|---|
| 01 | Venturi Meter & Orifice Meter Setup | The Setup consists of a parallel pipe line having a Venturi Meter and Orifice Meter of size 25 mm with control valve at discharge end. A Differential manometer 50 cm size with a common manifold to measure pressure difference. Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a discharge measuring tank with flow diverting arrangement also supplied |  |
| 02 | Bernoulli's Theorem Apparatus | The Setup consists of Two supply tanks connecting with a diverging and converging Perspex duct with 11 piezo meter tubes with a control valve at discharge end. Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a discharge measuring tank with flow diverting arrangement also supplied. |  |



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| 03 | Impact of Jet Apparatus | The Setup consists of a Perspex cylinder housing with a nozzle of 10 mm dia, in the bottom, on upstream side A replicable vane arrangement with force applying device (Two vanes- One Flat and other curved vane). Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a discharge measuring tank with flow diverting arrangement also supplied. |  A photograph of the Impact of Jet Apparatus. It features a blue metal frame supporting a clear Perspex cylinder. Inside the cylinder, a nozzle is at the bottom. A vane arrangement is positioned above the nozzle. A vertical scale is attached to the side of the cylinder. A label on the wall reads 'IMPACT OF JET APPARATUS'. |
| 04 | Orifice and Mouthpiece to determine the coefficient of discharge (Orifice Experiments) | The Setup consists of a supply tank having a arrangement to fixed the Orifice and mouth pieces (Two Nos Orifice and 4 Nos Mouth pieces) with a scale sliding arrangement to measure the X-Y coordinates of Jet. Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a discharge measuring tank with flow diverting arrangement also supplied |  A photograph of the Orifice and Mouthpiece Setup. It shows a blue metal frame with a horizontal channel. A white box is attached to the side of the channel. A vertical scale is attached to the side of the channel. A label on the wall reads 'ORIFICE AND MOUTHPIECE APPARATUS'. |



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| 05 | Notch Apparatus | <p>The Setup consists of a Supply tank having a arrangement to fixed the different notches (Rectangular and V-Notch) with a pointer gauge. Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a Discharge measuring tank with flow diverting arrangement also supplied.</p> |  |
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| | | | |
|----|------------------------------|--|---|
| 06 | Metacentric Height Apparatus | As per Standard |  |
| 07 | Pipe Friction Apparatus | The Setup consists of a parallel pipe line of 3 pipes of 15 mm, 20 mm and 25 mm dia with control valve at discharge end. A Differential manometer 50 cm size with a common manifold to measure pressure difference. Consists a Sump tank fitted with a centrifugal pump 0.5 HP to recirculation of water, a discharge measuring tank with flow diverting arrangement also supplied |  |