

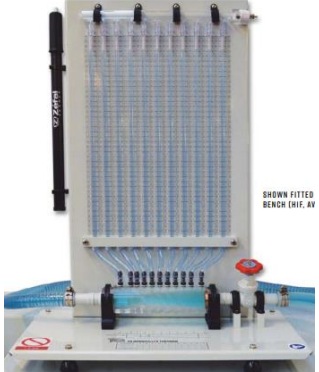


FLUID MECHANICS LAB

S.No.	Item Name	Model	Manufacturer	Usage	Picture
1	Notch	H6	TQ Techquiment	A comprehensive study of flow over weirs, including: <ul style="list-style-type: none"> Investigation of the head against discharge Coefficient of discharge Rectangular and different angled V -notches 	
2	Digital Hydraulic Bench	H1F	TQ Techquiment	This product supplies a controlled flow of water to a wide variety of laboratory experiment modules.	
3	Friction loss in a pipe Apparatus	H7	TQ Techquiment	Study of friction loss in a pipe, including: <ul style="list-style-type: none"> Investigations of laminar and turbulent flows Demonstration and measurement in the change of the laws of resistance (friction factor) from laminar to turbulent flow. Finding the critical Reynolds number. Verifying Poiseuille's equation and the coefficient of viscosity for water in the laminar flow region 	
4	Flow Meter Calibration	H40	TQ Techquiment	<ul style="list-style-type: none"> Accuracy of nozzle flow meters. Losses and k value. Calculation of the coefficient of discharge. 	
5	Pipework energy losses	H34	TQ Techquiment	Measurement and comparison of losses in: <ul style="list-style-type: none"> Mitre bend • Elbow bend. Large radius bend. Sudden expansion. Sudden contraction 	
6	Flow-Through an Orifice	H4	TQ Techquiment	Investigations into a variety of orifices over a range of flow rates, including <ul style="list-style-type: none"> Determination of contraction and velocity coefficients. Calculation of discharge coefficient Determination of actual discharge coefficient, and comparison with calculated values 	

7	Pelton Turbine	H19	TQ Techquiment	<p>To study the:</p> <ul style="list-style-type: none"> • Performance charts of power, speed, torque, and efficiency. • The effect of spear valve position 	
8	Francis Turbine	H18	TQ Techquiment	<p>To study the:</p> <ul style="list-style-type: none"> • Efficiency of a Francis turbine. • Performance of a Francis turbine at different flow rates. • The effect of different guide vane settings on turbine performance 	
9	Bernoulli's Theorem	H5	TQ Techquiment	<ul style="list-style-type: none"> • A comprehensive study of a Venturi meter and Bernoulli's theorem, including: • Direct measurement of the static head distribution along with a Venturi tube Measurement of the meter coefficient of discharge at various flow rates 	
10	Impact of a jet	H8	TQ Techquiment	<p>Measurement of the impact force and comparison with momentum change of four different plates:</p> <ul style="list-style-type: none"> • Flat plate. • Hemispherical plate. • Inclined flat the plate. • 120-degree conical plate • 30-degree angled plate 	