

Bernoulli Equation Demonstration Unit Operations Pilot Plant

Item Number: LPK-BBNL



Introduction

Laboratory pilot plant for Bernoulli's equation demonstration with transparent PVC pipes, 23 piezometer tubes for pressure measurement, and hands-on experiments. Designed for engineering education to study energy conservation, hydraulic grade line, and localized losses in fluid steady-flow systems.

[Learn More](#)

System Component / Parameter	Specification / Feature	Pedagogical Value & Associated Lab Experiments
Pipeline Material	Transparent rigid PVC	Direct observation of flow development and boundary transitions.
Pressure Measurement	23 glass piezometer tubes mounted on an experimental panel	Measurement of static pressure distribution and construction of the Hydraulic Grade Line (HGL).
Special Flow Sections	Sudden expansion and sudden contraction segments with integrated venting	Investigation of localized energy losses and pressure recovery.
Flow Control & Measurement	Rotameter and manual control valves	Verification of the continuity equation by adjusting flow rates.
Dimensions	≤ 2200mm × 580mm × 1780mm (L × W × H)	Compact footprint suitable for standard laboratory configurations.
Support Frame	High-quality aluminum alloy with lockable casters	Durable, corrosion-resistant structure ensuring long-term laboratory safety.