

flowLab™

A Miniature Water Tunnel and miniLDV™ / miniPIV™ Package

The flowLab is a state-of-the-art miniature water tunnel. With roughly the footprint of a standard desk, it is perfect for classroom demonstrations of flow phenomena or small-scale research projects. The test section can be changed in a few minutes by removing 12 screws, and its simple design allows users to easily build their own sections to complement the collection offered by MSE.

A standard male-thread spigot allows for easy draining of the reservoir via a standard garden hose.

Coupled with a miniLDV and miniPIV systems, the flowLab becomes a versatile training and demonstration facility utilizing a modern measurement methods with real-world application.

ADVANTAGES OF THE FLOWLAB:

- A complete flow loop—just add water
- Documentation with introduction to fluid principles in Microsoft Word format (editable)
- Easily change the flow between flow over a cylinder, flow over an airfoil, laminar boundary layer, pipe, and circular jet flows

APPLICATIONS INCLUDE:

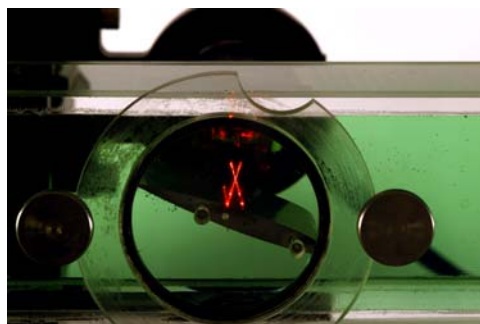
- Classroom demonstrations
- Training facilities
- Small-scale experiments
- Proof-of-concept studies



The flowLab is a complete water tunnel that can sit on a sturdy workbench or desk.



A variety of test sections are available and can be changed in minutes.



Combine with a miniLDV System for an integrated experimental and demonstration solution.

FLOW SPECIFICATIONS	
Maximum flow rate	40 US Gal/min (150 L/min)
Maximum speed, free test section	1 m/s (3.3 ft/sec)
Maximum speed, jet test section	5 m/s (15.5 ft/sec)

DIMENSIONAL SPECIFICATIONS	
Weight, empty	90 lbs (41 kg)
Weight, full	380 lbs (173 kg)
Width	52" (1320 mm)
Height	35" (890 mm)
Depth	22" (560 mm)
Test section	2 by 2 by 24 in (50 by 50 by 610 mm)
Contraction	6.25:1
Reservoir	35 US Gal (133 L)

STANDARD FEATURES	
Axisymmetric jet test section	
Test section with model plug	
Mounted airfoil (NACA 0012) and cylinder models	
Blank plug	

OPTIONAL FEATURES	
Free plenum	
Flat-plate test section	
Hydraulic jump test section	
Circular pipe flow test section	
Biofluids test section	
miniLDV System with manual traverses	
miniLDV System with motorized traverses	

POWER SUPPLY	
110 Volt (standard)	
220 Volt (optional)	



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