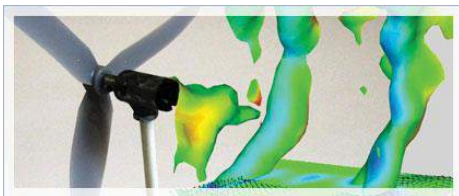


Fluid Mechanics



DESCRIPTION

Our Solutions enable students to safely investigate the fundamentals of Fluids, airflow and simple aerodynamic experimental procedures. The extensive range of optional accessories allow investigation of Bernoulli's equation, drag forces on various shapes, Investigation of a turbulent jet, investigation of boundary layer development, pressure distribution of flow around a bend, fan performance characteristics, jet attachment, pressure distribution around a cylinder, pressure distribution. Flow visualization, flow in pipes.

FLOW VISUALISATION INVESTIGATION

A smoke generator generates a visual oil mist that is introduced into the airstream ahead of the test shape through a number of fine nozzles.

The resulting smoke filaments clearly show streamlines around the test shapes.

HYDRAULICS BENCH

The hydraulics bench is mounted on lockable castor wheels and is constructed around a sturdy framework onto which all elements of the hydraulics bench are mounted. The main water storage tank from which the electrically operated external pump takes its water is situated on the framework. An on/off control on the front of the frame, together with a safety cut out controls the pump.

The storage tank is also used as the main drain of water from the relevant detachable modules of the HB series. The water is pumped into the modules and then allowed to flow/drain back into the main tank via hoses and pipework. The storage tank has a secured lid to keep dust and debris out. The pipe work connecting the storage tank and the modules ensure a closed system, which minimizes the local water requirement but allows large flow rates and pressure ranges to be accommodated.



AIRFLOW SYSTEM BASE UNIT

The Hilton Airflow System and its range of optional accessories enable students to safely investigate the fundamentals of airflow and simple aerodynamic experimental procedures.

The unit consists of a small footprint, high volume high pressure centrifugal fan with adjustable flow control, inlet and outlet couplings. The Hilton Airflow System is available with an extensive range of optional accessories that makes the unit a very flexible and economic investment.

A small footprint, high volume high pressure centrifugal fan with adjustable flow control, inlet and outlet couplings. A comprehensive range of optional accessories are available that may be connected to the fan inlet, outlet or both as required.