

CORIOLLI'S COMPONENT OF ACCELARATION (EE-1590)

The set-up is designed to study Corioli's Component of Acceleration of a slider crank mechanism. Here the mechanical slider system is replaced by a continuous stream of water flowing through a steady rotating pair of tubes. These tubes can be rotated at various speeds by using a swinging filed motor which also acts as dynamometer. A Perspex window on top of the tank gives clear view of the process and prevents splashing of the water over the side of the tank. The dynamometer continuously measures torque applied to the rotating tubes. The equipments is self contained, water re-circulating, provided with its own speed control unit and separate water circulating pump.

SCOPE OF EXPERIMENTATIONS:

- To determine Corioli's Component of Acceleration at various speeds of rotation and water flow rates.

UTILITIES REQUIRED:

- Water Supply.
- Drain
- Electricity 0.5 kW,220V,Single Phase

TECHNICAL DETAILS:

- Main Tank : Fabricated out of Stainless Steel
- Rotating Arms : 9mm/6mm orifice diameter, Length 300mm.
- Rotameter : 250 to 2500 LPH
- Electric Motor : Swinging field type, Variable speed.
- Pump : FHP
- Control Panel : RPM indicator (with Proximity sensor.)
Speed Control Unit
Standard make On/Off Switch, Mains Indicator, etc.
- The whole set-up is well designed and arranged in a good quality painted structure.

