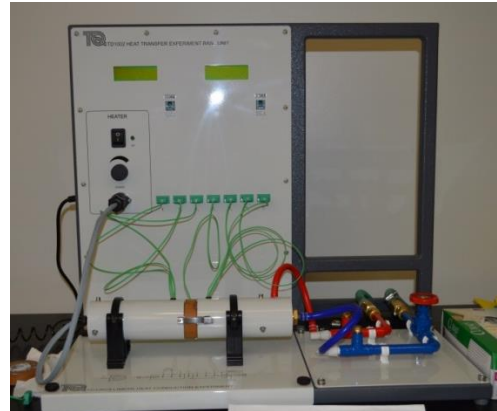


## Thermo-fluids Lab – Garni 002



### Refrigeration Cycle Training Bench

Demonstrates how a vapor-compression refrigeration cycle works.



### Linear Heat Conduction Experiment

Measures temperature changes along different metallic specimens for heat conduction and thermal conductivity calculations.



### TQ TD360 Heat Exchanger Service Module

Demonstrates how heat is transferred in a heat exchanger and evaluates heat exchanger performance.



### TQ TD 1050 STEAM MOTOR and Energy Conversion

Heated water turns to steam and is fed into an engine which then produces energy. This process resembles a thermal power plant.



**TQ TE19 Thermal Conductivity Experiment**

Calculates the thermal conductivity of a material. The sample is heated up in a vacuum sealed environment.



**TQ Centrifugal Pump Test**

Calculates the power required in the process and pump efficiency depending on varying conditions.



**TQ TD 1005 Free and Forced Convection**

Demonstrates how different types of fin surface areas affect the dissipation of heat.



**TQ Open Channel Flow**

Simulates an open channel under various conditions. Can also demonstrate phenomenon such as the hydraulic jump that occurs in an open channel.



**TQ Friction Loss in Pipe**

Demonstrates the efficiency lost in a pipe due to friction of the flowing liquid.



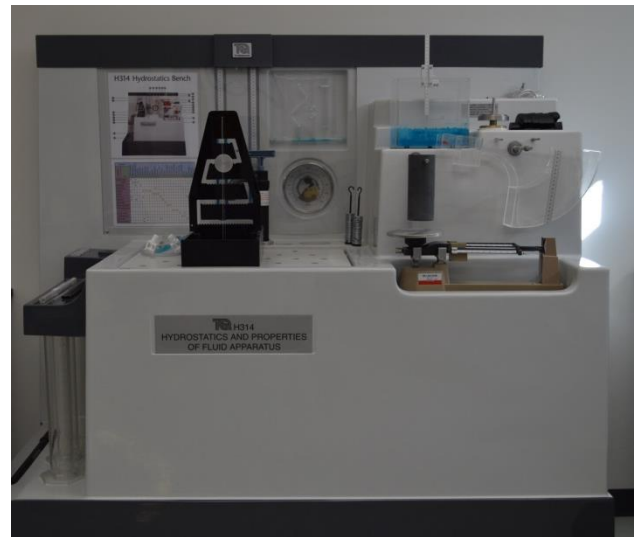
**TQ Venturi Meter Apparatus**

Demonstrates the varying pressure through a pipe when fluid is entering and existing.



**H30 Pressure Measurement Bench**

Demonstrates Bernoulli's theory that height is the only factor changes pressure.



**Hydrostatic and Properties of Fluid Apparatus**

This apparatus can determine fluid properties such as fluid density, specific gravity, surface tension and viscosity.



**Wind Tunnel**

Demonstrates how the pressure profile on an airfoil changes at different angles. It also demonstrates the aerodynamic properties that allow a plane to fly.

