Balancing Altitude Simulator Equipment (BASE)

**Features**
- Cost-effective alternative to expensive environmental chambers
- Patented technology
- Customized for each specific site
- Enables simulation of altitudes from Sea Level to 12,000 feet

**Description**

The CAI Balancing Altitude Simulation Equipment (BASE) system provides the ability to control the pressure and temperature at the engine air intake, crankcase and exhaust so pressure and temperature are equilibrated. This capability allows for testing of engines at both high and low altitudes and at a variety of air temperatures.

The BASE pressure control system uses a pressure control module that is in constant communication with a pressure-temperature equalization device consisting of a motor-driven supercharger and a motor controller. The equalization device facilitates control of the supercharger’s output by controlling motor speed which in turn allows the air to be delivered at the desired pressure.

The pressure-temperature equalization module also includes a pressure-tight plenum that contains a water-cooled heat exchanger for controlling the temperature of the air to be delivered at the desired pressure.