

ABSTRACT

METHOD AND APPARATUS FOR SIMULATING ONE OR MORE ECO HABITAT CONDITIONS

The invention relates to an apparatus for simulating one or more eco habitat conditions. The apparatus includes at least one eco capsule unit and an air inlet chamber for receiving air. The eco capsule unit includes a pressurized water driven turbine, a low-pressure vacuum chamber, a pressurized humid air chamber, where the pressurized water driven turbine is configured to receive pressurized water to propel the pressurized water driven turbine, for generating a highly humidified air-water mixture and a pressurized humid air-water vapor by creating turbulence. The vacuum chamber is configured to enable a wind chill simulation and to remove heat from water for generating a water with reduced temperature by controlling the rate of evaporation of water. The pressurized humid air chamber is configured to capture the turbulence created water-pollutant mixture, highly humidified air-water mixture and the pressurized humid air-water vapor, to be expelled or recycled via an air blower or a humid air exhaust, for removing pollutants from the air to generate purified air with a desirable temperature.

Figure 1