

NAME OF THE EQUIPMENT: SINGLE STEVENSON SCREEN

➤ PURPOSE OF STEVENSON SCREEN:

- Stevenson screen is a wooden box specifically designed for housing four thermometers which record the surface air temperature in °C.
- These four thermometers are maximum, minimum, dry and wet bulb thermometers.
- Thomas Stevenson designed this screen in 1866.

➤ DETAILS OF EQUIPMENT:

- A Stevenson screen is a rectangular wooden box of dimension length 56 cm, width 30 cm and height 40 cm.
- Double roof-side walls are louvered providing free movement of air to the thermometers bulb.
- The air space between the double roof and white painting prevent direct heating from the intensity of sunlight.
- Stevenson screen is painted white and is mounted on four wooden supports, the bottom of the screen being at 1.22 m (4 ft) above the ground.
- The screen is set up with its door facing north side (opening downward) so that minimum sunlight would enter while the observer is reading the instruments.
- The use of the screen is to protect the thermometers from direct heating from ground and neighbouring objects and from losing heat by radiation at night.
- Stevenson screen also protect instruments from rain and snow and allows free air circulation.
- The maximum and minimum thermometers are laid in horizontal positions on the upper and lower wooden brackets, respectively and rest at an angle of 2° to horizontal.
- The dry and wet bulb thermometers are kept vertical on the wooden bracket in the left and right hand sides, respectively.

