

Wind and Rain Test Laboratory

● Outline

Experimental techniques such as using a wind tunnel are necessary to evaluate the effects of high wind and heavy rain on buildings. In order to experimentally evaluate wind-resistant performance of buildings, waterproof performance of cladding, and urban wind environment, several equipment are installed in this laboratory.

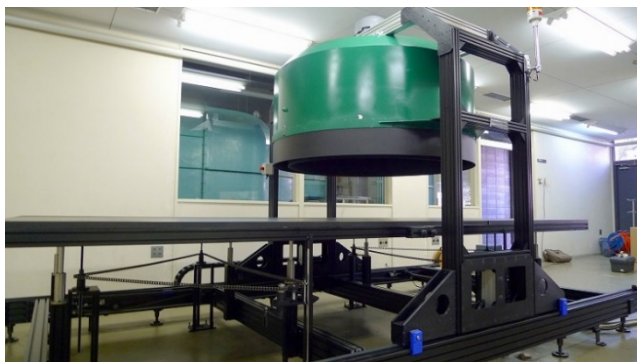
1. Boundary layer wind tunnel

Boundary layer wind tunnel is a useful tool to estimate prospective building performance subjected to typhoon-induced high wind. The purposes of wind tunnel experiments are divided into evaluation of wind pressure and force, aerodynamic response, and wind environment.



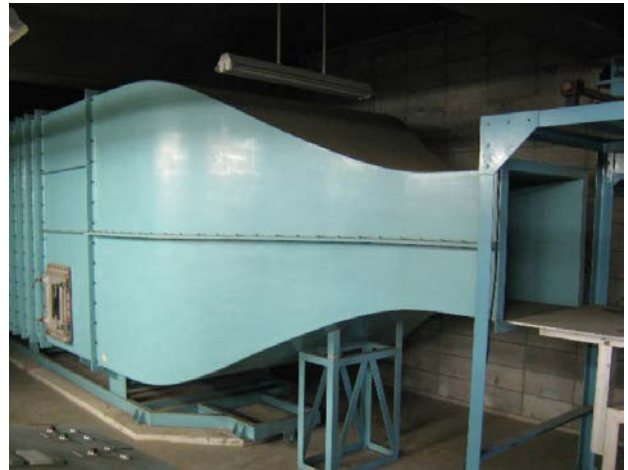
2. Tornado-like wind simulator

Tornado-like wind simulator was developed to simulate tornado-like swirling flow. Using this one, we can experimentally evaluate the tornado-induced wind force characteristics and the risk of flying debris strikes.



3. Low-turbulent wind tunnel

Low-turbulent wind tunnel is used for the calibration of anemometers.



4. Wind and rain simulator

Wind and rain simulator is able to simulate artificial storm and is used to evaluate wind-resistant and waterproof performance of building envelopes such as roof materials and windows.

