



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

RÜZGEM (METUWIND) Center For Wind Energy Research



Test Name	Ferrini Zipline 105 & Zipline Neo Wind Test
Client	SKS Monostar Panjur San. Tic. A.Ş.
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1. Introduction

Wind tests for the **Zipline 105** and **Zipline Neo** zip screen models, developed by the firm Ferrini, were conducted on **February 6, 2023**, at the METU RÜZGEM Large Wind Tunnel Open Jet test section.

During the test, the models were subjected to the following wind speeds:

- **Zipline 105:** Exposed to **163 km/h**.
- **Zipline Neo:** Exposed to **172 km/h**.

Post-test observations indicated no structural deformation in either model.

3. Test Setup

Wind tests were executed for two different zip screen models . The assembly of both test objects was performed by Ferrini personnel under the supervision of RÜZGEM staff .

- **First Test:** The **Ferrini Zipline 105** model, with dimensions of **2450 mm x 2450 mm**, was tested .
- **Second Test:** The **Ferrini Zipline Neo** model of the same dimensions was tested in the METU RÜZGEM Large Wind Tunnel Open Jet test section .

The view of the zip screens in the Open Jet test section before the test started is shown in Figure 1.



Figure 1: View of Zipline 105 (left) and Zipline Neo (right) zip screens on the test section .

4. Test Conditions

The wind speed in the test section was increased gradually . The maximum wind speeds recorded were:

- **Zipline 105:** Maximum **163.53 km/h** .
- **Zipline Neo:** Maximum **172.26 km/h** .

Graphs belonging to the wind speeds the test objects were subjected to are shown in Figure 2 . The view of the zip screens under wind load is shown in Figure 3 .

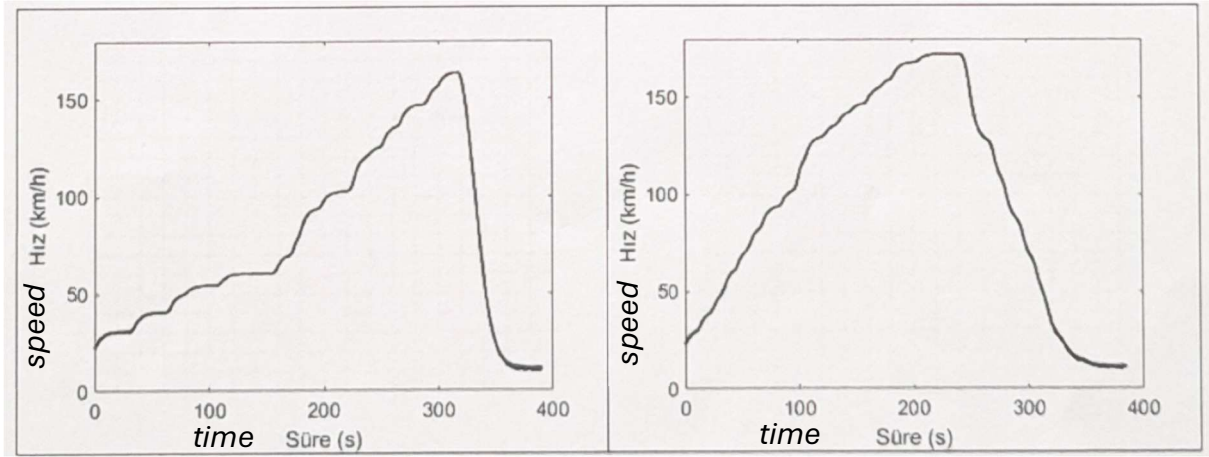


Figure 2: Wind speeds exposed to Zipline 105 (left) and Zipline Neo (right) models .



Figure 3: Zipline 105 (left) and Zipline Neo(right) under wind load .

5. Results

- **Structural Integrity:** Upon post-test inspection, no structural deformation, tearing, breaking, or snapping was observed in either zip screen model.
- **Mechanism Functionality:** No issues were observed in the opening and closing mechanisms of either model.
- **Disassembly:** Following the completion of the tests, the test objects were disassembled by Ferrini personnel under the supervision of RÜZGEM staff .