

WITNESS TESTING REPORT

Hardline Laboratory

Report No. : TH40207A/2022

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Date : MAR. 20, 2023

Frontline Fall Protection Inc

2023 NW 84TH AVE, Miami, FL 33122, United States

The following merchandise was submitted and identified by the applicant as:

Product Description: Rope Anchor

Style/Item No.: VLTP34

Site of Witness: No. 88-8, Sec. 2, Zhongtuo W. Rd., Wufeng Dist., Taichung City 41355, Taiwan

Additional Information: Test Witness: James Tsai.

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Requested: Clause 3.2.1, 3.2.2, 3.2.3 & 3.2.5 of ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Test Method: ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Test of Samples: Device types: Type A

Test Result: --See following sheet(s)--

Testing Period: MAY 6, 2022 ~ MAY 13, 2022

Conclusion: The submitted sample **complies with** clause 3.2.1, 3.2.2, 3.2.3 & 3.2.5 of ANSI/ASSE Z359.18-2017, Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

Note: This test report is extended from the original one TH40207/2022, issued on MAY 18, 2022.

Signed for and on behalf of
SGS Taiwan Ltd.



Luke Lee
Supervisor



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Test Method & Results:

| Clauses | Test Item/Results | Compliance | | | | | | | | |
|--|---|-------------------------------------|-------------|------------------------------------|--|-----------|-------------|--|----------|------|
| 3.2.1 | <p>3.2.1.1 Static Strength – Type A. When tested in accordance with 4.2.1.1, the anchorage connector shall be capable of resisting a static load of at least 5,000 pounds (22.2kN). The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Static test:</td> <td>No breaking and withstand the load.</td> </tr> </table> <p>Additional test of minimum breaking strength as the applicant’s request.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Minimum breaking strength: ≥ 4540 kgf</td> <td>6680 kgf</td> </tr> </table> | Test item | Observation | Static test: | No breaking and withstand the load. | Test item | Observation | Minimum breaking strength: ≥ 4540 kgf | 6680 kgf | Pass |
| | Test item | Observation | | | | | | | | |
| | Static test: | No breaking and withstand the load. | | | | | | | | |
| | Test item | Observation | | | | | | | | |
| Minimum breaking strength: ≥ 4540 kgf | 6680 kgf | | | | | | | | | |
| 3.2.2 | <p>3.2.2.1 Dynamic Strength – Type A. When tested in accordance with 4.2.2.1, the anchorage connector shall successfully arrest the test weight. The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Dynamic test:</td> <td>The test weight was successfully arrested.</td> </tr> </table> | Test item | Observation | Dynamic test: | The test weight was successfully arrested. | Pass | | | | |
| | Test item | Observation | | | | | | | | |
| Dynamic test: | The test weight was successfully arrested. | | | | | | | | | |
| 3.2.3 | <p>3.2.3.1 Residual Strength – Type A. When tested in accordance with 4.2.3.1, the anchorage connector shall successfully arrest the drop of the test weight and maintain the test weight in suspension for at least 1 minute. The anchorage connector may deform provided that, where operable gates are used, the deformation shall not create a separation of more than 1/8 inch (3mm) between the gate and the body.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Residual Strength:</td> <td>No breaking and withstand the load.</td> </tr> </table> | Test item | Observation | Residual Strength: | No breaking and withstand the load. | Pass | | | | |
| | Test item | Observation | | | | | | | | |
| Residual Strength: | No breaking and withstand the load. | | | | | | | | | |
| 3.2.5 | <p>Corrosion Test Requirements 3.2.5.1 Type A and Type D anchorage connectors that include ferrous metal load-bearing components made of materials other than stainless steel or hot-dipped galvanized steel shall pass the corrosion test in 4.2.5.1. The presence of red rust, visible to the unaided eye, or other evidence of corrosion of the base metal shall constitute failure of the salt spray test. Post-test presence of white scale on hardware surface is permitted. Components that have had salt spray testing in accordance with another Z359 standard need not be tested for corrosion under this standard.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Test item</td> <td>Observation</td> </tr> <tr> <td>Signs of corrosion (visual check):</td> <td>No</td> </tr> </table> | Test item | Observation | Signs of corrosion (visual check): | No | Pass | | | | |
| | Test item | Observation | | | | | | | | |
| Signs of corrosion (visual check): | No | | | | | | | | | |

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Test equipment:

| Description | Manufacturer | Model No. | Serial No. | Cal. Date |
|---------------------------------|--------------|-----------|-------------------|------------|
| Laser distance meter | BOSCH | GLM40 | 122213512 | 2021/11/22 |
| Environmental testing equipment | TERCHY | HEMB-120L | 1080911 | 2021/8/17 |
| Environmental testing equipment | TERCHY | HEMB-120L | 1060910 | 2021/8/17 |
| Universal Machine | NTS | LCX-100kN | 18038 | 2022/3/18 |
| Force guage | AIKOH | RX-10 | D02639 | 2022/5/4 |
| Load cell | JIHSENSE | LM-3T | 90508 | 2021/7/14 |
| Salt spray tester | - | DR-90 | B-03-01 | 2021/8/9 |
| PH meter | Lutron | PH-211 | AJ.92507(B-03-02) | 2020/9/25 |

Note :

1. The content of this report is invalid if it is not presented as the entire report.
2. The statement of conformity is based on the test results, but does not include the measurement uncertainty.
3. N/A = Not applicable; "--" = blank.

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– Picture(s) –



Photo "A" Appearance of sample

--- End of Report ---

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