

## WITNESS TESTING REPORT

Hardline Laboratory

Report No. : TH60112A/2023

Page : 1 of 4

Date : NOV. 15, 2023

### Frontline Fall Protection Inc

6 Lee Blvd, Malvern, PA 19355, USA (888) 523-1795

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

Product Description: Swivel Anchorage-Weld-on mounting

Style/Item No.: STWD5K

Site of Witness: No. 61, Ln. 1265, Zhongzheng Rd., Jifeng Vil., Wufeng Dist., Taichung City, Taiwan

### 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: Jul. 06, 2023 ~ Jul. 07, 2023

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.

Signed for and on behalf of  
SGS Taiwan Ltd.



Luke Lee  
Supervisor



Testing Site: No. 9, 14th Rd., Taichung Ind. Park, Taichung City 40755, Taiwan

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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%; border-collapse: collapse;"> <thead> <tr> <th>Test item</th> <th colspan="3">Observation</th> </tr> </thead> <tbody> <tr> <td>Sample No.:</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>Static test:</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> </tr> </tbody> </table> <p>Additional test of static strength as the applicant's request.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Test item</th> <th colspan="3">Observation</th> </tr> </thead> <tbody> <tr> <td>Sample No.:</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>Static test: 10,000 pounds (44.4kN)</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> </tr> </tbody> </table>	Test item	Observation			Sample No.:	1	2	3	Static test:	No breaking and withstand the load.	No breaking and withstand the load.	No breaking and withstand the load.	Test item	Observation			Sample No.:	1	2	3	Static test: 10,000 pounds (44.4kN)	No breaking and withstand the load.	No breaking and withstand the load.	No breaking and withstand the load.	Pass
	Test item	Observation																								
	Sample No.:	1	2	3																						
	Static test:	No breaking and withstand the load.	No breaking and withstand the load.	No breaking and withstand the load.																						
	Test item	Observation																								
	Sample No.:	1	2	3																						
	Static test: 10,000 pounds (44.4kN)	No breaking and withstand the load.	No breaking and withstand the load.	No breaking and withstand the load.																						
	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%; border-collapse: collapse;"> <thead> <tr> <th>Test item</th> <th colspan="3">Observation</th> </tr> </thead> <tbody> <tr> <td>Sample No.:</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>Dynamic test:</td> <td>The test weight was successfully arrested.</td> <td>The test weight was successfully arrested.</td> <td>The test weight was successfully arrested.</td> </tr> </tbody> </table>	Test item	Observation			Sample No.:	1	2	3	Dynamic test:	The test weight was successfully arrested.	The test weight was successfully arrested.	The test weight was successfully arrested.	Pass											
		Test item	Observation																							
		Sample No.:	1	2	3																					
Dynamic test:		The test weight was successfully arrested.	The test weight was successfully arrested.	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%; border-collapse: collapse;"> <thead> <tr> <th>Test item</th> <th colspan="3">Observation</th> </tr> </thead> <tbody> <tr> <td>Sample No.:</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>Residual Strength:</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> <td>No breaking and withstand the load.</td> </tr> </tbody> </table>	Test item	Observation			Sample No.:	1	2	3	Residual Strength:	No breaking and withstand the load.	No breaking and withstand the load.	No breaking and withstand the load.		Pass										
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Clauses	Test Item/Results	Compliance												
3.2.5	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.	Pass												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Test item</th> <th colspan="3">Observation</th> </tr> </thead> <tbody> <tr> <td>Sample No.:</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Signs of corrosion (visual check):</td> <td style="text-align: center;">No</td> <td style="text-align: center;">No</td> <td style="text-align: center;">No</td> </tr> </tbody> </table>		Test item	Observation			Sample No.:	1	2	3	Signs of corrosion (visual check):	No	No	No
	Test item		Observation											
	Sample No.:		1	2	3									
Signs of corrosion (visual check):	No	No	No											

**Test equipment:**

Description	Manufacturer	Model No.	Serial No.	Cal. Date
Laser distance meter	BOSCH	GLM40	122213512	2022/11/23
Environmental testing equipment	TERCHY	HEMB-120L	1080911	2022/09/06
Environmental testing equipment	TERCHY	HEMB-120L	1060910	2022/09/06
Universal Machine	NTS	LCX-100kN	018038	2022/08/30
Force gauge	OLY	RX-200N	4111506136	2023/05/24
Load cell	JHSENSE	LM-3T	110921	2022/11/14
Salt spray tester	--	DR-90	B-03-01	2022/08/30
PH meter	Lutron	PH-211	AJ.92507(B-03-02)	2022/09/28

**Note :**

1. The content of this report is invalid if it is not presented as the entire report.
2. The decision rule of the statements of conformity is following the ILAC G8:09/2019 by using the simple acceptance decision rule.
3. N/A = Not applicable; "--" = Blank.


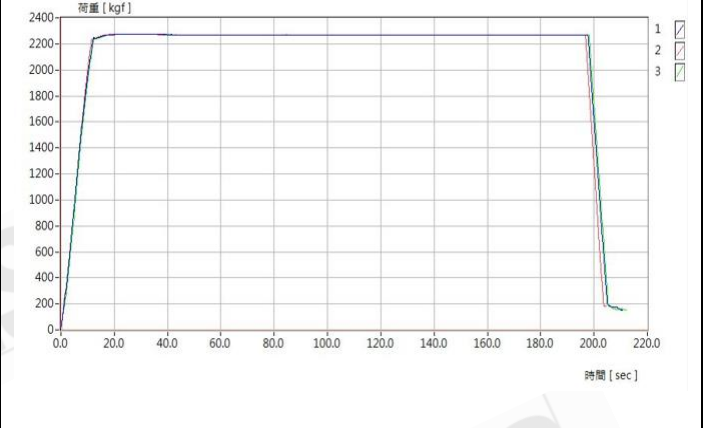
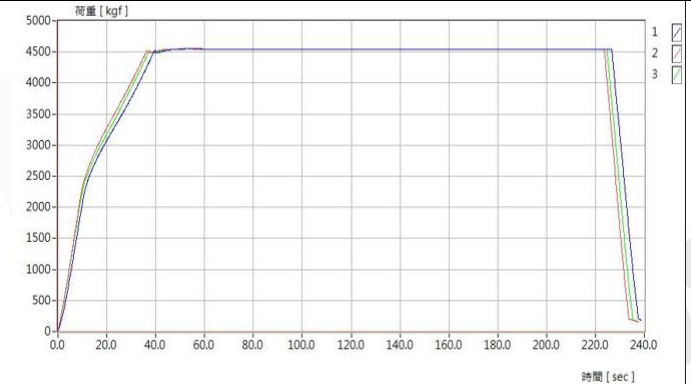
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– Picture(s) –

	
<p>Photo "A" Appearance of sample</p>	<p>Photo "B" Static Strength</p>
	<p>--Blank--</p>
<p>Photo "C" Static Strength –Additional test</p>	<p>--Blank--</p>

--- End of Report ---