Test Report
ANSI/ASSE Z359.18-2017

Pure Safety Group, Inc.
607 East Sam Houston Pkwy S
Suite 800, Pasadena, TX 77053

Test Report Number: 2025100200242
Job Number: Qualification 786
Product SKU#: 00242
Product Type: Anchorage Connector
Product Description: Swivel Concrete Anchor Kit
Testing Standard: ANSI/ASSE Z359.18-17 Safety Requirements for Anchorage Connectors for Active Fall Protection Systems
Date(s) of Manufacture: 6/01/2022
Date(s) of Testing: 2/21/2023, 2/22/2023, 2/23/2023

REQUIREMENT VERIFICATION

Requirement Description	Clause/Section	Result
Design Requirements	3.1 Design Requirements	Meets or Exceeds
Performance Requirements	3.2 Performance Requirements	Meets or Exceeds
Markings and Instructions	5. Markings and Instructions	Meets or Exceeds

QUALIFICATION TESTING

Test Description	Test Date	Clause/Section	Result
Static Strength (Inline)	2/21/2023	4.2.1.1 Static Strength Testing of Type A Anchorage Connectors	Pass
Static Strength (Sheer)	2/22/2023	4.2.1.1 Static Strength Testing of Type A Anchorage Connectors	Pass
Dynamic Strength (Inline)	2/23/2023	4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors	Pass
Residual Strength (Inline)	2/23/2023	4.2.3.1 Residual Strength Testing of Type A, T, & D Anchorage Connectors	Pass
Dynamic Strength (Sheer)	2/22/2023	4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors	Pass
Residual Strength (Sheer)	2/22/2023	4.2.3.1 Residual Strength Testing of Type A, T, & D Anchorage Connectors	Pass

This test report covers these additional products:

00240, 00241, 00243, 00244

Please contact quality@guardianfall.com for signed report.

TEST EQUIPMENT		
EQUIPMENT	MODEL	SERIAL
Load Cell	1210AF-10K-B	444522A
Load Cell	1220ACK-25K-B	367976A
Test Weight	282 lb	GFP001
Scale	TLI	02314063019

3.1	Design Requirements	
3.1.1a	Connection points shall support only one user or system at a time	Meets or exceeds
b)	A connection point eye on a type T anchorage connector shall be a closed eye with a minimum 1 inch inside radius	N/A
c)	Anchorage connectors shall not have closed loops that could be mistaken for a connection point	Meets or exceeds
d)	Any operable gates, rings, buckles, or other hardware covered by ANSI Z359.12-2012 shall comply with ANSI Z359-12-2012	Meets or exceeds
e)	Multiple connections shall only be permitted on tripod or davit style anchorages	Meets or exceeds
3.1.2	Surfaces shall be free from burrs, pits, sharp corners and roughness	Meets or exceeds
3.1.3.1	Hot-dipped galvanized steel shall conform with ASTM A123/123M	Meets or exceeds
3.1.3.2.1	Type A and Type T anchorage connectors shall maintain toughness at temps between -30 degrees F and +130 degrees F. Each dynamic strength test sample shall be conditioned at -35 +/-2 C for a minimum of 8 hours and removed no more than five minutes before testing.	Meets or exceeds
3.1.4.1	Textiles shall not contain natural fibers	N/A
3.1.4.2	If a subsystem uses stitching for connection of load-bearing components, the equipment manufacturer shall produce the stitching and cutting and meet the following requirements:	
a)	Use lock stitching	N/A
b)	Secure the ends of threads by backstitching, overlapping stitching, or other methods	N/A
c)	Threads used for sewing shall be physically compatible with the webbing and of a quality comparable to that of the webbing	N/A
d)	Hot-cut or fuse thermoplastic materials, cord, tape, and webbing to prevent fraying	N/A
e)	The thread color or shade shall contrast with that of the webbing to faciltate visual inspection	N/A

5	Markings and Instructions	
5.1	Marking Requirements	
5.1.1	**General:** The following markings shall appear in English on a label, marking or tag that is designed to last for the lifetime of the anchorage connector and is permanently affixed to the anchorage connector	
a)	The manufacturer's name and mark	Meets or exceeds
b)	The year of manufacture	Meets or exceeds
c)	Model number	Meets or exceeds
d)	"ANSI Z359.18" and the type	Meets or exceeds
e)	Markings to indicate restrictions on directions of loading, if applicable	Meets or exceeds
f)	Where specified by the manufacturer, the working load	Meets or exceeds
g)	An individual serial number or a lot or batch number that provides traceability	Meets or exceeds
h)	Minimum Breaking Strength, followed by "MBS."	Meets or exceeds
5.1.2	**Specific:** As required for the specific anchorage connector, the following markings shall appear in English on a label, marking or tag that is designed to last for the lifetime of the anchorage connector and is permanently affixed to the anchorage connector	Meets or exceeds
5.1.2.1	An anchorage connector that incorporates a closed loop not intended for connection, but may be mistaken for a connection point shall be permanently labeled with a warning not to connect a fall protection system or suspended component to the closed loop when used in a cinching operation	N/A
5.1.2.3	The minimum service temperature for the anchorage connector according to 3.1.3.2	Meets or exceeds
5.1.2.4	For tripods and davit systems, the maximum number of users permitted on the system	N/A

Notes

5.2	Instruction Requirements	
5.2.1	**General:** Provide the following instructions and information in English with each anchorage connector	
5.2.1.1	**Overall:**	
a)	A statement that the anchorage connector has been tested in compliance with the requirements of ANSI/ASSE Z359.7, and caution that the ANSI compliance testing covers only the hardware and does not extend to the anchorage and substrate to which the anchorage connector is attached	Meets or exceeds
b)	Specifications for appropriate anchorages(s) to which the anchorage connector can be attached, including instructions on how to proceed when the user is unable to determine whether the anchorage meets the manufacturer's specification and instructions that the anchorage connector shall only be connected to anchorages that:	Meets or exceeds
i.	Can withstand 5,000 lb (22.2kN) without failure, except that lower strengths are acceptable when permitted by applicable legislation; or	Meets or exceeds
ii.	Are certified by a professional engineer as having the required strength for fall arrest or travel restraint, as applicable, or;	Meets or exceeds
iii.	The manufacturer may provide specifications of allowable materials including the minimum shapes, sizes and geometry of structural elements to which the anchorage connector may be fastened. A qualified person shall approve these specifications.	Meets or exceeds
c)	The manufacturer shall clearly label the minimum service temperature for the anchorage connector according to 3.1.3.2	Meets or exceeds
d)	The manufacturer shall supply complete specifications for fasteners	Meets or exceeds
e)	The anchorage type	Meets or exceeds
f)	The permitted uses of the anchorage connector	Meets or exceeds
g)	The connection point(s), working load limit	Meets or exceeds
h)	The material used in the anchorage connector's construction	Meets or exceeds
i)	The length of the anchorage connector and any other dimensions that may affect its compatibility with anchorage to which it may be connected	Meets or exceeds
j)	The manufacturer shall make available upon request information for the design of systems, such as AAF and/or force vs. displacement curve(s) for the device	Meets or exceeds
k)	A statement that only one fall protection system or positioning system may be attached to an individual connection point	Meets or exceeds
l)	Specification providing the intended directions(s) of loading of the anchorage connector	Meets or exceeds
m)	A complete list of the anchorage connector components provided by the manufacturer at the time of sale	Meets or exceeds
n)	A warning against unauthorized alterations, relocations or additions to the anchorage connector	Meets or exceeds

Notes

5.2.1.2	**Use:**	
a)	Instructions on proper installaion and use, including, but not limits to, compatibility with other fall protection components	Meets or exceeds
b)	The length of the anchorage connector and any other dimensions that may affect its compatability with anchorages to which it may be connected	Meets or exceeds
c)	Where applicable, directions regarding the appropriate length of lanyard to use with the anchorage connector to compensate for the additional length that it may add to the lanyard	Meets or exceeds
d)	Permitted and forbidden uses, including clear description of and the recommended ways of dealing with applicable compatibility concerns	Meets or exceeds
e)	A warning to remove any surface contamination such as concrete, stucco, roofing material, etc., that could accelerate cutting or abrading of attached components	Meets or exceeds
f)	Warnings concerning environments and conditions that may degrade the anchorage connector	Meets or exceeds
g)	Training requirements	Meets or exceeds
5.2.1.3	**Inspection and Field Testing:**	
a)	Instructions on testing, if needed	Meets or exceeds
b)	Where applicable, directions for the installer to performs and document proof testing upon installation. Directions shall include proof load forces and acceptable methods	Meets or exceeds
c)	Field serviceability testing: The manufacturer shall provide guidelines for how often field load testing must be undertaken to prove that the anchorage connector continues to be adequately secured to the structure. These guidelines shall include recommended methods for testing, including the direction and point of application of test loads	Meets or exceeds
d)	The recommended frequencies and procedures for inspection, maintenance, and when applicable, testing	Meets or exceeds
e)	Instructions for inspecting and servicing an anchorage connector after it is subjected to a fall or an inspection reveals an unsafe condition	Meets or exceeds
f)	If applicable, guidelines for retirement of the anchorage connector	Meets or exceeds
g)	The action to be taken if an inspection of an anchorage connector reveals an unsafe condition	Meets or exceeds
h)	The action to be taken after the anchorage connector is subjected to a fall	Meets or exceeds
i)	Criteria for removal of an anchorage connector from service if deformed from its original installed configuration	Meets or exceeds
5.2.1.4	**Cinching and Non-Cinching Style Anchorage Connectors**	
	Where the anchorage connector includes an abrasion pad, provide directions that the abrasion pad shall be installed between the anchorage and the load bearing strap	Meets or exceeds
	The proper method of installing the anchorage connector including, as applicable for non-cinching anchorage connectors, the maximum angle permitted between connection legs	Meets or exceeds

Notes

All measurements expressed at approximately 95% confidence level using coverage factor K=2

4.2.1.1 Static Strength Testing of Type A Anchorage Connectors (Inline)
requirements per 3.2.1.1

a) A new anchorage connector may be used for each test

b) The test force shall be 5,000 pounds (22.2kN) +50/-0 pounds (+0.22/-0kN). Apply these forces in accordance with the requirements of 4.1.2.

c) Install the anchorage connector on the test anchorage in accordance with the requirements of 4.1.2

d) Apply the load to the anchorage connector in the direction(s) of loading specified in 4.1.2.5

e) Apply the load at a rate not greater than 2 inches (51mm) per minute. Maintain the load above 5,000 pounds (22.2kN) for at least 3 minutes

f) Release the load

g) Evaluate the test results per 3.2.1.1

4.2.1.1 Static Strength Testing of Type A Anchorage Connectors (Inline)
requirements per 3.2.1.1

Samples	Sample # 01	Sample # 02	Sample # 04
Anchorage Connector Withstands Applied Load for >3 mins	Yes	Yes	Yes
Actual load applied (lb)	5061.22	5067.02	5052.47
If gates are present, no seperation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

4.2.1.1 Static Strength Testing of Type A Anchorage Connectors (Sheer)
requirements per 3.2.1.1

a) A new anchorage connector may be used for each test

b) The test force shall be 5,000 pounds (22.2kN) +50/-0 pounds (+0.22/-0kN). Apply these forces in accordance with the requirements of 4.1.2.

c) Install the anchorage connector on the test anchorage in accordance with the requirements of 4.1.2

d) Apply the load to the anchorage connector in the direction(s) of loading specified in 4.1.2.5

e) Apply the load at a rate not greater than 2 inches (51mm) per minute. Maintain the load above 5,000 pounds (22.2kN) for at least 3 minutes

f) Release the load

g) Evaluate the test results per 3.2.1.1

4.2.1.1 Static Strength Testing of Type A Anchorage Connectors (Sheer)
requirements per 3.2.1.1

Samples	Sample # 01	Sample # 02	Sample # 04
Anchorage Connector Withstands Applied Load for >3 mins	Yes	Yes	Yes
Actual load applied (lb)	5028.72	5028.05	5042.84
If gates are present, no seperation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

Notes

All testing was completed using a 6 inch concrete substrate, each sample inserted into an 18mm hole.

4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors (Inline)
requirements per 3.2.2.1

a) Install the anchorage conenctor, conditioned according to the applicable requirements of this section, on the test anchorage in accordance with the requirements of 4.1.2.

b) Connect one end of the test lanyard to the connection point of the anchorage connector to be loaded or to the arrest force measuring instrumentation, as applicable

c) Connect the other end of the test lanyard to the test weight specified in 4.1.3

d) Raise the test weight to achieve a free-fall distance of 3, +0.1/-0, ft (0.9, +0.03/-0m)

e) Release the test weight by means of the quick-release mechanism

f) Evaluate the test results per 3.2.2.1

4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors (Inline)
requirements per 3.2.2.1

Samples	Sample # 05	Sample # 06	Sample # 07
Anchorage Connector arrests test weight	Yes	Yes	Yes
If gates are present, no seperation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

4.2.3.1 Residual Strength Testing for Type A Anchorage Connectors (Inline)
requirements per 3.2.2.1

a) Install the anchorage conenctor, conditioned according to the applicable requirements of this section, on the test anchorage in accordance with the requirements of 4.1.2.

b) Connect one end of the test lanyard to the connection point of the anchorage connector to be loaded or to the arrest force measuring instrumentation, as applicable

c) Connect the other end of the test lanyard to the test weight specified in 4.1.3

d) Raise the test weight to achieve a free-fall distance of 3, +0.1/-0, ft (0.9, +0.03/-0m)

e) Release the test weight by means of the quick-release mechanism

f) Evaluate the test results per 3.2.2.1

4.2.3.1 Residual Strength Testing for Type A Anchorage Connectors (Inline)
requirements per 3.2.2.1

Samples	Sample # 05	Sample # 06	Sample # 07
Anchorage connector arrests test weight	Yes	Yes	Yes
Anchorage connector supports test weight for minimum one minute	Pass	Pass	Pass
If gates are present, no separation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

Notes

All testing was completed using a 6 inch concrete substrate, each sample inserted into an 18mm hole.

4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors (Sheer)
requirements per 3.2.2.1

a) Install the anchorage conenctor, conditioned according to the applicable requirements of this section, on the test anchorage in accordance with the requirements of 4.1.2.

b) Connect one end of the test lanyard to the connection point of the anchorage connector to be loaded or to the arrest force measuring instrumentation, as applicable

c) Connect the other end of the test lanyard to the test weight specified in 4.1.3

d) Raise the test weight to achieve a free-fall distance of 3, +0.1/-0, ft (0.9, +0.03/-0m)

e) Release the test weight by means of the quick-release mechanism

f) Evaluate the test results per 3.2.2.1

4.2.2.1 Dynamic Strength Testing of Type A Anchorage Connectors (Sheer)
requirements per 3.2.2.1

Samples	Sample # 08	Sample # 09	Sample # 10
Anchorage Connector arrests test weight	Yes	Yes	Yes
If gates are present, no seperation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

4.2.3.1 Residual Strength Testing for Type A Anchorage Connectors (Sheer)
requirements per 3.2.2.1

a) Install the anchorage conenctor, conditioned according to the applicable requirements of this section, on the test anchorage in accordance with the requirements of 4.1.2.

b) Connect one end of the test lanyard to the connection point of the anchorage connector to be loaded or to the arrest force measuring instrumentation, as applicable

c) Connect the other end of the test lanyard to the test weight specified in 4.1.3

d) Raise the test weight to achieve a free-fall distance of 3, +0.1/-0, ft (0.9, +0.03/-0m)

e) Release the test weight by means of the quick-release mechanism

f) Evaluate the test results per 3.2.2.1

4.2.3.1 Residual Strength Testing for Type A Anchorage Connectors (Sheer)
requirements per 3.2.2.1

Samples	Sample # 08	Sample # 09	Sample # 10
Anchorage connector arrests test weight	Yes	Yes	Yes
Anchorage connector supports test weight for minimum one minute	Pass	Pass	Pass
If gates are present, no separation more than 1/8”	N/A	N/A	N/A
Result/Assessment	Pass	Pass	Pass

Notes

All testing was completed using a 6 inch concrete substrate, each sample inserted into an 18mm hole.

Pictured: 00242
Represents all SKUs

Notes

Labels

Applicable to all part #s

GUARDIAN

Concrete Swivel Anchor

Part #: 00240

DOM: **SERIAL#:** **LOT#:**

90190 Rev. F-1
guardianfall.com

⚠ WARNING!

Prior to use, read and understand manufacturer's instructions provided with equipment. Alteration, abuse, or misuse of this product may result in serious injury or death. Take caution when using in electrical, high heat, or corrosive environments.

IMMEDIATELY REMOVE FROM USE IF EXPOSED TO FORCES OF FALL ARREST. DO NOT REMOVE LABELS.

90190 Rev. F-2

Made in China

OSHA 1910.140, OSHA 1926.502 & ANSI/ASSP Z359.18
Type A anchorage connector.
Maximum 1 connection per anchor.
Capacity range: 130-420 lb.
(including all equipment)
5,000 lb. MBS (minimum breaking strength).
Materials: galvanized steel.
Min. service temperature: -30° F.

ALWAYS USE WITH COMPATIBLE EQUIPMENT.
ONLY MAKE COMPATIBLE CONNECTIONS. REFER TO INSTRUCTIONS.

Inspection Grid:

Inspect prior to each use. Competent Person must inspect and record at least every 12 months.

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YR												
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