

USER INSTRUCTION MANUAL: SWIVEL ANCHOR

Models: 5K Swivel Anchor: HG-1540CSA Accessories: Puck, Bolt, Back Plate

WARNING: User must understand the manufacturer's instructions and be trained in the proper use of e. Manufacturer's instructions must be followed for proper installation, use, care, and maintenance of this product. These instructions must always be available for reference. Alterations or misuse of this product or failure to follow instructions may result in serious injury or death.

IMPORTANT: This manual is intended to meet the Manufacturer's Instructions as required by the American National Standards Institute (ANSI) Z359.18-2017 and should be used as part of an employee training program as required by the Occupational Safety and Health Administration (OSHA). All components or subsystems used with the swivel anchor discussed in this manual must be in compliance with ANSI Z359 and OSHA.

1.0 WARNINGS REGARDING THE SWIVEL ANCHOR:

- Before use, all users must understand the instructions, operation, limitations, and consequences of improper use of device.
- Before use, all users must be properly trained in accordance with the requirements of OSHA 29 CFR 1910.66 and 1926.503 or applicable local standards in the safe use of the fall arrest system and its components.
- Before use, thoroughly inspect the swivel anchor as indicated in Section 6.
- Only use the swivel anchor with ANSI/OSHA compliant personal fall arrest or restraint systems.
- In the absence of certification, the anchorage must be capable of supporting a static load, applied in the directions permitted by the system, of at least 5,000-lbf (22.3 kN).
- The maximum dynamic forces exerted on the user during a fall arrest must be limited to a maximum of 8kN (1800 lbf).
- A competent engineer or other qualified person must approve that the use of swivel anchor is compatible with all structural and operational characteristics of the selected installation location and system that it will relate to.
- Prior to each use, the must be inspected for wear, damage, and other deterioration. The swivel anchor must immediately be removed from service (in accordance with OSHA 29 CFR 1910.66 and 1926.502) if it does not pass inspection.
- Before use, ensure that the complete fall protection system (including components, fall clearance, and swing fall) are planned and established correctly.
- Position the swivel anchor in such a way to minimize the potential for falls, and the fall distance during use.
- Before use, establish a rescue plan that provides either: prompt rescue of users in the event of a fall, or assures users can rescue themselves. Also confirm that the means to implement said rescue plan are at hand and easily accessible.
- After a fall, the anchorage connector must be removed from service and destroyed immediately.

2.0 WARNINGS REGARDING USE LIMITATIONS:

- This device must not be used outside its limitations, or for any purpose other than for which it is intended.
- User capacity: single user only, with weight up to 310 lbs (140 kg), including tools, clothing, etc.
- The anchorage connector must only be loaded in the directions shown in the LOADING ORIENTATION DIAGRAM.
- User environment temperature range: -30°F to +130°F (-34°C to +54°C).
- Do not expose the swivel anchor to chemicals or harsh solutions which may negatively affect its performance.
- Do not alter or modify this product in any way.
- Exercise caution when using any component of a fall protection system near hazards such as: moving machinery, electricity, sharp edges, and abrasive surfaces. Failure to do so may result in equipment failure, personal injury or death.
- All individuals must be trained by a "competent person" (as defined by OSHA 29 CFR 1926.32(f)) before using this equipment
- Do not remove product labels.

- Depending on anchorage type / type of fastening used for installation, there may be additional requirements or limitations. Before installation, all placements must be approved by an engineer or other qualified person.
- The 5K swivel anchors are only to be used as part of a horizontal lifeline that has been designed and approved for use with 5,000lbf anchorage connectors.
- The anchorage connector should only be used for personal fall protection (not lifting).
- Only couple the anchorage connector to compatible connectors. Per OSHA 29 CFR 1926.502, snaphooks are prohibited from engaging with objects unless: it is a locking type of snap hook, and it is "designed for" making such a connection. "Designed for" indicates that the manufacturer of the snaphook specifically designed it to be used to connect to the equipment listed.
- According to ANSI Z359.0-2007, rollout is when a snaphook or carabiner unintentionally disengages from the object to which it is coupled. When a non-locking carabiner is used, the following connections could result in rollout:

Rollout may result in equipment failure, personal injury or death.

- \circ \quad Direct connection of a snaphook to horizontal lifeline.
- \circ $\;$ Two (or more) snaphooks connected to one D-ring.
- \circ Two snaphooks connected to each other.
- A snaphook connected back on its integral lanyard.
- $_{\odot}$ $\,$ A snaphook connected to a webbing loop or webbing lanyard.
- Improper dimensions of the D-ring, rebar, or other connection point in relation to the snaphook dimensions that would allow the snaphook keeper to be depressed by a turning motion of the snaphook.

3.0 SPECIFICATIONS:

3.1 PART NUMBERS, DIMENSIONS, AND WEIGHT:

3.1.1 <u>5K Version:</u>

Part Number	HG-1540CSA	HG-1540CSAA	HG-1540CSAW
Description	Steel Swivel Anchor Base 5K	Steel Swivel Anchor W/ Bolt	Steel Swivel Anchor & Puck Assembly
		5K	5K
Dimensions (mm)	03 (1.30) 033 (1.30) 033 (0.51)	58 (3.4) (1.35) (3.16) (3.16) (2.29) (1.35)	(1.36) (4.34) (4.34) (2.28) (2.28) (2.28) (2.28)
Weight (g)	225	346	1,850

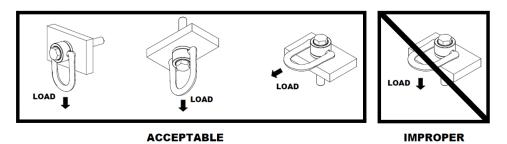
3.1.2 Puck & Bolt:

Part Number	N-8232050WA	
Hole Diameter (A)	5/8″	(A)
Weight (g)	930	30 22 (1.18)(0.87)

3.2 SPECIFICATIONS:

Version	Minimum Breaking Strength (MBS)	Working Load	Regulatory Compliance	Material
5K	5,000-lbf (22.3 kN)	1,000-lbf (454 kg)	Meets or exceeds ANSI Z359.18 Type A,	Zinc Plated
			ANSI Z359.7-2011 OSHA 1926.502	Steel

3.3 LOADING ORIENTATION DIAGRAM:



4.0 INSTALLATION:

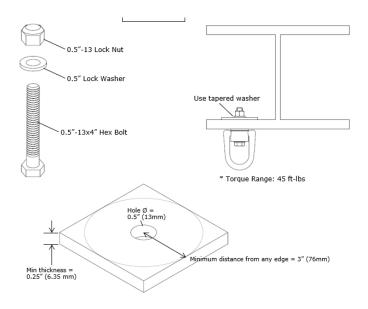
4.1 STEEL MOUNTING:

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Using a proper drill and bit for steel, drill a ϕ hole no less than **D** deep and **L** away from any edge.

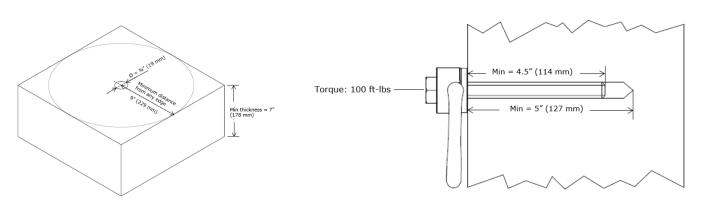
	Ø	D	L
HG-1540CSA	1/2" (13mm)	1/4" (6.35 mm)	3″ (76 mm)

• The hole must be straight and perpendicular to surface and be free of debris.



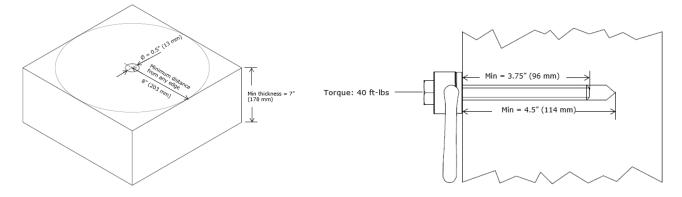
IMPORTANT: Use a grade 10.9, grade 12.9 (or equivalent) bolt no shorter than 4" (100mm) with a locking nut and washer in steel applications. When installed, the swivel anchor must be flush with the steel surface.

4.2 CONCRETE MOUNTING:

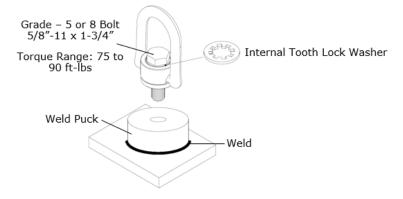


4.2.1 5K Version:

- Using a proper drill and bit for concrete (SDS drill bit), drill a .5" (13 mm) hole no less than 4.5" (114 mm) deep 8" (203 mm) away from any edge.
- The hole must be straight & perpendicular to surface, and free of debris.
- Concrete strength must be at least 3000 psi (20.7 MPa) and no less than 7" (178 mm) thick.



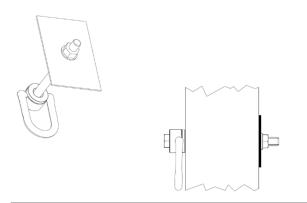
4.3 WELD-ON MOUNTING:



IMPORTANT: Before installation and use, the welding procedure must be approved by a competent engineer or other qualified person. Specifically, that the welding procedure is compatible with any and all structural & operational characteristic of the selected installation location.

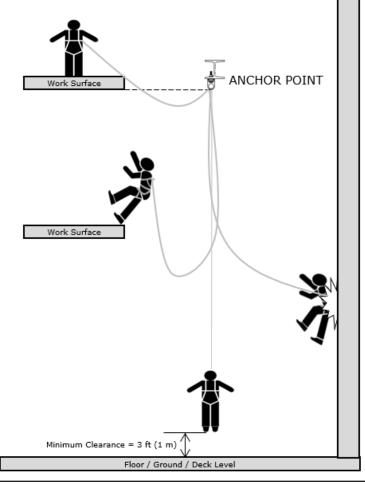
4.4 BACK PLATE MOUNTING:

- Back plate to be used with 5/8" (16 mm) bolts or all thread.
- Drill hole perpendicular into surface so bolt can pass freely through the substrate.
- Nuts must be fully threaded on the bolt to insure maximum strength ratings and integrity of anchor.



NOTE: Bolt or All-thread and nut are not included with Back Plate.

4.5 INSTALLATION WARNINGS



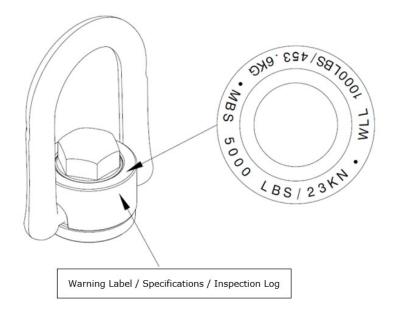
• The maximum dynamic forces exerted on the user during a fall arrest must be limited to a maximum of 8kN (1800 lbf). In the EU, these forces must be limited to 6 kN (1,350-lbf) for N-8232100.

• The structure the anchorage is attached to must be able to support 5,000-lbf (22.3 kN) for HG-1540CSA and installed under the supervision of a qualified person.

• All products subjected to fall arresting forces must be removed from service immediately after fall.

WARNING: Swing falls may occur when the user is not directly under the anchor point.

5.0 WARNING LABEL



WARNING: It is important and necessary to the safety of the end user that the seller of this device include all instructions pertaining to the proper use, maintenance, and inspection of the device in the language of the country/region in which the device is to be sold.

6.0 INSPECTION

6.1 PRE-USE: Before each use, ensure each unit is in good working condition through inspecting as per instructions indicated in Table 1 below. Record results of inspection using the Inspection Record in Appendix A. Remove the unit from service if the unit exhibits damage, defects, inadequate maintenance, or any other unsatisfactory results during inspection.

Table 1 - Guidelines for Swivel anchor Inspection			
Inspection	Pass	Fail	
Ensure all labeling is present and affixed to the unit.			
Inspect anchoring system for signs of damage or wear.			
Ensure the unit can rotate 360° and the D-ring can flip from side to side.			
If are reusing a previously drilled hole, inspect it for debris or wallowing.			
Ensure the unit is flush with mounting surface.			
Record final inspection results in the Inspection Record in Appendix A.			

6.2 INSPECTION FREQUENCY:

- Units must be inspected by a competent person at regular intervals, as required by the type of use and working environment. The competent person must use inspection criteria indicated in Table 1.
- An official periodic inspection performed by a qualified person (other than the intended user) must be performed at least semiannually. Inspections should be carried out more frequently if parts are exposed to severe weather or harsh conditions.
- All inspection results must be recorded in the Inspection Record.
- It is recommended to mark the anchor with the date of the next or last inspection.

IMPORTANT: The swivel anchor must be labeled as 'unusable' and promptly discarded if inspection indicates any damage that could affect the strength or operation of the device, or unsafe conditions.

7.0 STORAGE, SERVICE, AND MAINTENANCE

7.1 MAINTENANCE AND CLEANING:

- Periodic cleanings will prolong the life of this product. Cleaning frequency should be determined based on inspection and severity
 of the environment.
- Clean the device with compressed air and/or a stiff brush using water or a mild soap and water solution.
- Do not clean the swivel anchor with corrosive chemicals, as these may damage the product.
- After cleaning, wipe all surfaces with a clean, dry cloth and hang unit to dry or use compressed air.

7.2 STORAGE:

- When not in use, store the device in a clean, dry, and cool environment, out of direct sunlight and free of corrosive or other degrading elements.
- Position the device in such a way that excess water is allowed to drain out.
- Avoid exposing device to chemical or caustic vapors.
- After a prolonged period of storage, thoroughly inspect the device.
- 7.3 SERVICE: The swivel anchor is not user repairable. If the swivel anchor does not pass pre-use inspection, tag as "UNUSABLE" and either (a) dispose of it, or (b) contact an authorized service center of HiiGARD.

APPENDIX A: INSPECTION RECORD

Inspection Record					
Model #:		Serial #:		Date of Manufacture:	
INSPECTION DATE	INSPECTOR	COMMENTS	PASS/FAIL	CORRECTIVE ACTION NEEDED	APPROVED BY

HiiGARD www.hiigard.com info@hiigard.com