



Document Title:
Heavy-Duty Screw Anchors for Concrete

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Author

Miguel J. Rios López, PE (Lic. 16636)
General Engineer, Distribution Standards & Materials

Signature and Date

Jul 26, 2024

Reviewer

Rodolfo A. Flores Ortiz, PE (Lic. 27131)
General Engineer, Distribution Standards & Materials

Signature and Date

Jul 26, 2024

Approver

Ricardo Castro Gómez, PE (Lic. 12135)
Manager, Distribution Standards & Materials

Signature and Date

Jul 26, 2024

Management Approval (If apply)

Approver

Name
Position

Signature and Date

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
1	Sep. 16, 2022	Initial release.
2	Jul. 25, 2024	General format modifications, TOC updated, Section 4 modified, and sections order rearranged.



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
002-83465	83465	2	7/25/2024



1. Introduction

This is a general specification that covers the minimum requirements for heavy-duty screw anchors to be used in the distribution and transmission system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general electrical and mechanical characteristics of the equipment/material.

2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this equipment/material to LUMA on previous orders will not have to furnish samples at bid opening. The equipment/material will be received at the LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Literature

Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. Failure to submit documents on time will cause bidder disqualification. If required by LUMA, final drawings shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For compatible manufacturers and models, see Table 1. These models are examples of the equipment/materials described in this document and do not represent a preference. LUMA will evaluate equally any models not listed here during any acquisition event.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. Packaging labels and tags shall be waterproof.

6. Packaging

All equipment/material shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

7. Number Per Package (Logistics)

Eighty (80) units per box or as requested by LUMA.

8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Product shall be manufactured in accordance with the latest issue below (section 8.3). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.3. Latest applicable codes, standards, and other regulations:
 - a. Latest applicable for stainless steel.
- 8.4. If any other standard different from the ones indicated in this document are used, the supplier must provide information showing compatibility with the required ones.

9. Description

- 9.1. Concrete screw anchor for heavy duty use.
- 9.2. Screw anchor material must be stainless steel, at least 304. Threads shall be carbon-steel lead.
- 9.1. Must be furnished with a hex washer head.
- 9.2. Dimensions:
 - a. Anchor diameter: 1/2 inch (12.7 mm)
 - b. Length 5 inch (127 mm)
 - c. Min. Thread Length 4-1/2 inch (114.3 mm)
- 9.3. Must be suitable for 5/8" to 11/16" diameter holes in steel fixtures.
- 9.4. Minimum Strength Characteristics:
 - a. Yield Strength 91,200 PSI
 - b. Tensile Strength 114,000 PSI
 - c. Tensile and Shear Stress Area 0.1832 sq. in.
- 9.5. The supplier must provide an appropriate drill bit for installation per every 80 screw anchors.

10. Inspection

The acceptance of any equipment/material shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such equipment/materials were found later to be defective.



11. Proposal Information

11.1. Submitted proposals must include:

- a. Technical information, tests, and drawings.
- b. Table of Compliance completed by the bidder with reference (see Appendix 1).

12. Table 1: Warehouse and Asset Suite Identification Number

Warehouse Catalog #	Asset Suite #	Compatible Supplier & Model
002-83465	83465	Simpson Strong-Tie (THD50500H4SS)

— End of Specification —



Appendix



Appendix 1: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	The Proponent complies with the corresponding specification document (4350.270).		
2	The Proponent complies with the industry standards established in the specification document.		
3	Tech. info., tests, and drawings provided.		
4	Heavy-Duty Screw Anchor		
5	Stainless Steel, at least 304, with carbon-steel lead threads.		
6	Construction	Hex Washer Head	
		1/2" diameter x 5" length	
		4-1/2" minimum thread length	
7	Strength Characteristics	Yield Strength: 91,200 PSI	
		Tensile Strength:114,000 PSI	
		Tensile and Shear Stress Area: 0.1832 sq. in.	
8	One drill bit for installation per every 80 screw anchors provided.		

NOTE: This table is only a checklist for reference. The compliance shall be with the complete document. Marking a PASS in the table won't be accepted as a compliance without the technical information required to certify it.











4350.270 Heavy-Duty Concrete Screw Anchor (7-25-24)

Final Audit Report

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