



Document Title:  
**Corrugated Steel Pipes**

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**Specification**

Engineering Type  
**Equipment Specification**

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**Transmission  
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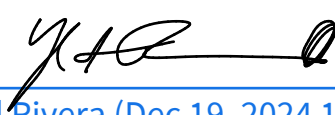
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**Management Approval (If apply)**

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**Related/Referenced Documents**

Version	Date	Revision Comments
00	Aug 2, 2023	First Issue
01	Dec 19, 2024	Changed cover page and document to new format. Modified sections 3 and 6. Added a table of compliance and Proposal Information. Changed Equal or approved equal to Compatible with and was modified.

## **1. General**

### **1.1. Overview**

- 1.2. This is a general specification that covers the minimum requirements for corrugated steel pipes to be used at LUMA transmission systems in Puerto Rico.
  - 1.2.1. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site conditions, quantity, and other requirements.
  - 1.2.2. This document includes the general electrical and mechanical characteristics of the material.

## **2. Basic Use**

- 2.1. Corrugated steel pipes are used to improve bearing capacity for 38 kV steel poles.

## **3. Specific Requirements**

- 3.1. Samples shall be furnished to LUMA.
- 3.2. LUMA requires One (1) unit properly labeled for testing and analysis.
- 3.3. Descriptive and technical literature shall be supplied to LUMA.
- 3.4. They shall be required to show evidence of LUMA's approval of the equipment.

## **4. Acceptance Criteria**

- 4.1. Design, construction, and manufacture shall be in accordance with the latest following standards and codes:
  - 4.1.1. Standard Specification for Steel Sheet, Zinc-Coated Galvanized for CPS – AASHTO M218
  - 4.1.2. Standard Specification for Steel Sheet Metallic-Coated Hot-Dip Process for CSP – ASTM A 929
  - 4.1.3. Corrugated Steel Pipe, Metallic-Coated for Sewers, and Drains – AASHTO M365
  - 4.1.4. Standard Specification for CSP, Metallic-Coated for Sewers, and Drains – ASTM A 760
  - 4.1.5. Structural Design of Buried Thermoplastic Structures – AASHTO Section 12\*
  - 4.1.6. Standard Practice for Structural Design of CSP – ASTM A 796
- 4.2. If the vendor does not demonstrate its compliance with the applicable standards, these specification requirements and supply the requested documents, the bid may be rejected.
- 4.3. Test required: certified by external laboratories
- 4.4. Latest applicable codes, standards, and other regulations: ANSI/ASTM

## **5. Description**

- 5.1. The galvanized steel pipes shall be in accordance with the AASHTO M 218 or ASTM A929 requirements.

- 5.2. Connection fasteners for coupling bands shall be provided.
- 5.3. Coupling bands for the corrugated steel pipes shall be made of the same base metal and coatings as the corrugated steel pipe to a minimum of 18 gauge.
- 5.4. For proper indexing the ends of the corrugated steel pipe shall be rerolled with annular corrugations.
- 5.5. Characteristics for the 2 ⅜" x ½" height of cover limits for corrugated pipes shall be as follows.

Diameter or Span (inches)	Minimum Cover (inches)	Specified Thickness (inches)	Length (feet)
42	12	0.064	12
48	12	0.064	12
54	12	0.064	12
60	12	0.064	12
66	12	0.064	12
72	12	0.064	12

\*Note: 0.064" is 16 gauge.

**6. Markings and Packaging**

- 6.1. Vendor shall prepare material and equipment for shipment in such manner as to facilitate handling and protection for damage.
- 6.2. All material should be packaged and marked in such a way that the receiving warehouse can readily identify and send in one (1) complete unit to a field location without opening crates or boxes to sort items and / or parts.
- 6.3. Containers/pallets or package shall be marked outside with LUMA'S purchase order number and code number.
- 6.4. Number per package: As approved by LUMA

**7. Compatible with:**

- 7.1. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 42" Diameter, 12' Length
- 7.2. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 48" Diameter, 12' Length
- 7.3. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 54" Diameter, 12' Length
- 7.4. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 60" Diameter, 12' Length
- 7.5. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 66" Diameter, 12' Length
- 7.6. Contech – HEL-COR 2 ⅜" x ½", Galvanized, 16 GA, 72" Diameter, 12' Length
- 7.7. These models are an example of the equipment/material described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

**8. Proposal Information**

- 8.1. Submitted proposals must include:

- a. Technical Information
- b. Table of Compliance completed by the bidder with reference

**9. Inspection**

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

Description	Warehouse ID No.
Corrugated Steel Pipe – 42” Diameter, Length 12’	328-85152
Corrugated Steel Pipe – 48” Diameter, Length 12’	328-85153
Corrugated Steel Pipe – 54” Diameter, Length 12’	328-85155
Corrugated Steel Pipe – 60” Diameter, Length 12’	328-85157
Corrugated Steel Pipe – 66” Diameter, Length 12’	328-85158
Corrugated Steel Pipe – 72” Diameter, Length 12’	328-85159

— End of Specification —

## Appendix

Appendix 1. Table of Compliance

Line	Criteria	Description	Pass/Fail (P / F)	Comments
1	Specification	The Proponent complies with the corresponding specification document (4752.333)		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document (ANSI, ASTM, AASHTO)		
3	Material	Corrugated Steel Pipes <ul style="list-style-type: none"> <li>• Material shall be galvanized steel.</li> <li>• Shall be hot-dip galvanized in accordance with ANSI/ASTM A153.</li> </ul>		
4	Dimensions	Complies with Table 1		
5	Requirements	<ul style="list-style-type: none"> <li>• Samples shall be furnished to LUMA.</li> <li>• LUMA requires One (1) unit properly labeled for testing and analysis.</li> <li>• Descriptive and technical literature shall be supplied to LUMA.</li> <li>• They shall be required to show evidence of LUMA’s approval of the equipment.</li> <li>• Required to be certified by external laboratories</li> </ul>		












# 4752.333 Corrugated Steel Pipes

Final Audit Report

2024-12-19

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