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Floor-Mounted Reel Take-Up

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Author

Alexander Moraza Ramos
Technical Specialist II, Distribution Standards & Materials

Signature and Date:

Jan 12, 2026

Reviewer

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

Signature and Date:

Jan 12, 2026

Approver

Reinaldo J. Baretty, PE (Lic. 16712)
Director, System Standards & Records

Signature and Date:

Jan 12, 2026

Management Approval (If apply)

Approver

Name, Position

Signature and Date:

Related/Referenced Documents

Include the applicable document, section, or reference

Version History

Version	Date	Revision
01	Jan. 12, 2026	Initial release



1. Introduction

This is a general specification that covers the minimum requirements for the Floor-Mounted Reel Take-Up to be used in the distribution 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 characteristics of the machine.

2. Special Requirements

- 2.1. Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this product to LUMA on previous orders, will not have to furnish samples at bid opening. The product will be received at LUMA's general warehouse (O11) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.
- 2.2. Onsite training shall be provided for both operators and maintenance personnel, guaranteeing accurate knowledge transfer for proper operation and upkeep of the unit.

3. Literature

- 3.1. Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature must include, but is not limited to, details of material, drawings, documented testing, and instructions for use and installation. **The literature must be an official document from and certified by the manufacturer.** Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For a compatible manufacturer/model see Table 2. This model is an example of the product described in

this document and does not represent a preference. LUMA will evaluate equally any model 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. Individual package(s) shall be clearly marked with manufacturer name and item information (part number, serial number, quantity, etc.).
- 5.3. Packaging labels and tags shall be waterproof.

6. Packaging

- 6.1. All products 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.
- 6.2. A list of all parts included in the container and/or package must be provided at the time of delivery so that the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

7. Number Per Package (Logistics)

Standard package: one unit per box, or as requested by LUMA.

8. Acceptance Criteria

- 8.1. Test required: certified by external qualified laboratories.
 - a. FAT at factory: speed tests (0–35 RPM), torque under load, traverse, E-Stop.
 - b. SAT onsite (Warehouse 011): calibration of meter and counter with acceptance report.
- 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. ISO 13849: is a standard for machine safety, providing principles and requirements for designing and integrating the safety-related parts of control systems (SRP/CS), like emergency stops and safety light curtains, ensuring high levels of protection against hazards.

8.4. If any other standards 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. The Floor-Mounted Reel Take-Up is a heavy-duty industrial machine designed for handling large reels in coiling and take-up applications. It winds or coils a continuous product (such as cable, wire, hose, tubing, or pipe) onto a reel or spool for storage, transport, or further handling.

9.2. The machine shall be equipped with a hydraulic system for lifting and an integrated pintle positioning mechanism for precise reel alignment and secure mounting.

9.3. The system shall feature two dedicated control stations to facilitate safe and efficient reel loading.

9.4. The machine shall include an inverted auto traverse system to provide uniform and accurate material winding across the full reel width.

9.5. The unit shall include a freestanding operator console pedestal.

9.6. The system shall be equipped with a torque and speed potentiometer for precise winding control.

9.7. The unit main controls shall include Power On/Off Selector Switch, Drive Jog Forward/Reverse Pushbuttons, Forward/Reverse Selector Switch, Speed Potentiometer to adjust speed of take up, and Emergency Stop.

9.8. The machine shall feature heavy duty steel frame construction with bolt-down flanges.

9.9. The unit shall be shaftless and include pintle stub shafts for supporting reels (without a through-shaft), adaptors for different arbor hole sizes (up to 5" outside diameter), and a drive arm with adjustable drive pin for engaging reel flanges.

9.10. The equipment must have a nominal capacity $\geq 20,000$ lbs (static and dynamic), documented in technical datasheets and torque/inertia calculations.

9.11. Table 1: Machine Characteristics:

Electrical Requirements	230 or 480 VAC, 3-phase, 60 Hz, 25 HP, 0-35 RPM
Reel Width	24"- 84"
Reel Diameter	24"- 120"
Reel Weight Capacity	20,000 lbs

NOTE: The values above represent the preferred parameters, however, deviations within acceptable tolerances may be considered during the technical review and acquisition process. Unit voltage must be clearly stated in the supplied documentation and purchase order.

- 9.12. The unit shall include a Material Measuring Meter designed to measure heavy and large diameter material such as wire rope and large diameter cable. The meter shall have the following requirements:
- a. A wire guide.
 - b. Pivot arms and springs to keep the measuring roller tightly clamped against the cable and ensure accurate measurement.
 - c. Top and bottom rollers to facilitate pulling material from reel racks.
 - d. Capable of measuring products from 1/8" to 4" in diameter and have a minimum accuracy of $\pm 0.5\text{--}1.0\%$ depending on range.
- 9.13. The system shall come with an Electronic Predetermined Stop-to-Length Counter, which must include slow-down and pre-scaling features to allow in-field calibration and a large, easy-to-read digital display readout.
- 9.14. The unit must include a 2 HP AC Power Traverse with pendant control left/right pushbuttons ball-screw drive and safety limit switches.
- 9.15. The system shall also come with a Broken Reel Turntable for reel with a maximum weight capacity of 20,000 lbs. The turntable shall include:
- a. Forklift base with bolt-down floor anchor flanges.
 - b. Structural steel turntable top: 112" Diameter with 6" skirt and 2" diameter steel center post.
 - c. Raised channels: equally spaced at 90 degrees with 1.50" adjustment holes on 4" centers.
 - d. Eight (8) 1.50" diameter X 48" long steel coil ID pins.
 - e. Center mounted heavy-duty 2" ID four-bolt flange bearings.
 - f. Eight (8) 6" X 2" steel wheel rigid casters for even support of the turntable top.
- 9.16. The unit shall be equipped with safety features, including physical guards, appropriate signage, and provisions for Lockout/Tagout (LOTO).

9.17. The unit shall incorporate environmental and anti-corrosion protections, including marine-grade epoxy or galvanized finish, IP55-rated electrical enclosures, hardware made of stainless steel or equivalent material, and surge protection.

10. Inspection and Warranty

10.1. Upon inspection of incoming product, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of the product received. The supplier shall be liable for all costs incurred for a product that is rejected.

10.2. The acceptance of any product 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 products were found later to be defective.

10.3. The equipment shall include a minimum 12-month warranty from the date of commissioning, covering labor and essential spare parts.

11. Proposal Information

11.1. Submitted proposals must include:

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

12. Table 2: Compatible Manufacturer & Model

Item	Compatible Manufacturer & Model
Floor-Mounted Reel Take-Up	Reel Power Industrial FMT 20

— End of Specification —

Appendix

Appendix: Table of Compliance

Criteria	Description	Pass/Fail	Comments
Item	Floor-Mounted Reel Take-Up designed for coiling cables/wires onto a reel/spool		
Standards/Testing	Complies with ISO 13849. Test requirements disclosed in section 8.1.		
Reel Capacity	Width: 24" - 84"		
	Diameter: 24" - 120"		
	Weight: 20,000 lbs		
Features	Electrical Requirements: 230 or 480 VAC, 3-phase, 60 Hz, 25 HP, 0-35 RPM		
	Heavy duty steel frame construction with bolt-down flanges.		
	The unit shall include a freestanding operator console pedestal.		
	Torque and speed potentiometer for precise winding control.		
	Two dedicated control stations to facilitate safe and efficient reel loading.		
	Inverted auto traverse system to provide uniform and accurate material winding across the full reel width.		
	Hydraulic system for lifting and an integrated pintle positioning mechanism for precise reel alignment and secure mounting.		
	Shall be shaftless and include pintle stub shafts for supporting reels (without a through-shaft) and adaptors for different arbor hole sizes up to 5" outside diameter. (Sec. 9.9)		
	Main controls shall include Power On/Off Selector Switch, Drive Jog Forward/Reverse Pushbuttons, Forward/Reverse Selector Switch, Speed Potentiometer and Emergency Stop.		
	Material Measuring Meter to measure heavy and large diameter material such as wire rope or cable. Shall measure products 1/8" to 4" in diameter. (Sec. 9.12)		
	IDEC Electronic Predetermined Stop-to-Length Counter, with slow-down and pre-scaling features to allow in-field calibration and a large digital display readout.		
	2 HP AC Power Traverse with pendant control left/right pushbuttons, ball-screw drive and safety limit switches.		
	The system shall come with a Broken Reel Turntable (Sec. 9.15)		
The unit shall be equipped with safety features (see Sec. 9.16)			
Shall incorporate environmental and anti-corrosion protections (see Sec. 9.17)			
Conclusion	Complies with the Specification (Doc. No. 4300.50.363)		

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.












4300.50.363 Floor-Mounted Reel Take-Up

Final Audit Report

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