



## Mill Duty Linear Spring Reel

 **RHINO REEL**<sup>TM</sup>  
by Conductix-Wampfler

 **CONDUCTIX**  
wampfler  
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# A Revolutionary **New** Concept for Mill Applications

Some of the hardest working machines in your mill or foundry are the spring driven cable reels that supply power/control to your magnets, grabs, and transfer cars. These reels must operate on-demand. If they don't, systems will go down and productivity will be lost.

A traditional spring reel retracts cable using one or more "power springs", also called clock springs. These are appropriate for many uses, but have a limited life span. On high duty cycle equipment, they must be replaced often, which is costly, time consuming, and dangerous. Power springs remain under tension even after they have been removed from the reel.



Power Spring

## The New RHINOREEL: A Long-Running, Safer Solution

### Our Patented, Long Life Linear Spring Motor:

- ▶ Lasts up to **three times** longer than reels that retract with traditional power springs. The linear spring motor has been tested to 100,000 cycles.
- ▶ Reduces the total cost of ownership. Less downtime will be incurred due to 67% fewer spring replacements versus traditional spring reels.
- ▶ Yields a very smooth, linear torque curve, reducing the strain on the cable. Power springs can unwind erratically when the wraps bind against each other.
- ▶ Handles a wide range of tough applications and has been field-proven in demanding mill, foundry, and bulk handling environments.

### The Safe and Easy to Maintain Linear Spring:

- ▶ Uses a lubricated ball screw and chain/sprocket drive system that requires very little routine maintenance.
- ▶ Is completely enclosed and sealed, making the RHINOREEL a safer alternative compared to reels driven with power springs.
- ▶ Can be replaced, if ever needed, without removing the reel. The spring itself or the complete motor can be changed in less than 30 minutes.
- ▶ Is serviced only after all spring tension has been removed, making the spring safe to handle. A power spring can unwind violently if it ever comes out of its canister or safety band, increasing the chance of injury.

**24 MONTH LIMITED WARRANTY    PATENT # 8,888,033 B2**



# Provides *Three Times* the Life of Traditional Power Spring Operated Reels



How rugged is the Linear Spring Motor? Major shock absorber makers estimate that an average car spring flexes between 1500-2000 cycles *per mile*, which is 150 million cycles in 100,000 miles. Suspension springs usually last the life of the vehicle.

## Rugged Frame

- 1/2" thick hot rolled steel; sized to protect spool flanges.
- Integrated lifting eyes to hoist the reel into place.

## Durable Spool

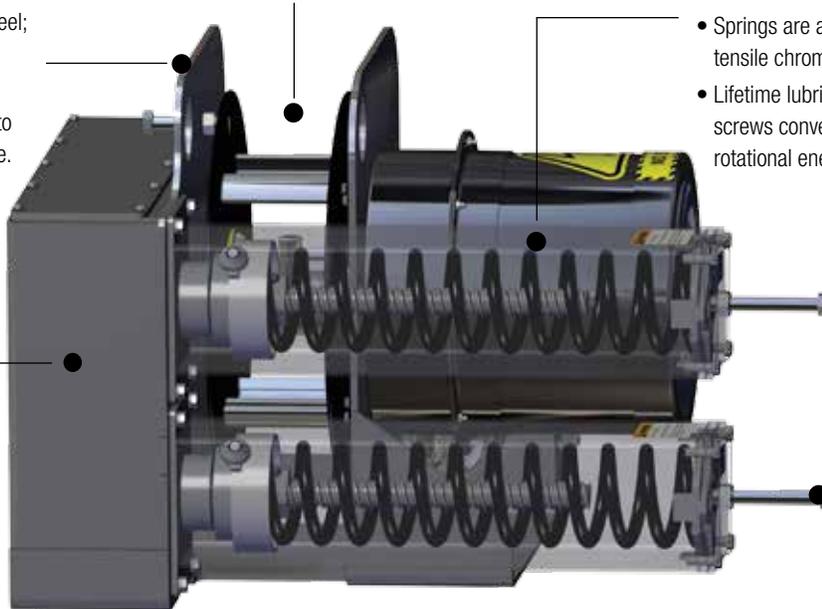
- 1/4" steel spool flanges.
- 6105-T5 aluminum alloy drum spacers.

## Long Life Linear Spring Motors

- Up to four motors, each individually sealed in a steel housing.
- Springs are automotive-grade, high tensile chrome silicon alloy steel.
- Lifetime lubricated, hardened ball screws convert spring compression into rotational energy.

## Durable Drive Housing

- 1/4" hot rolled steel.
- Fully sealed.



## Spring Tension Adjustment

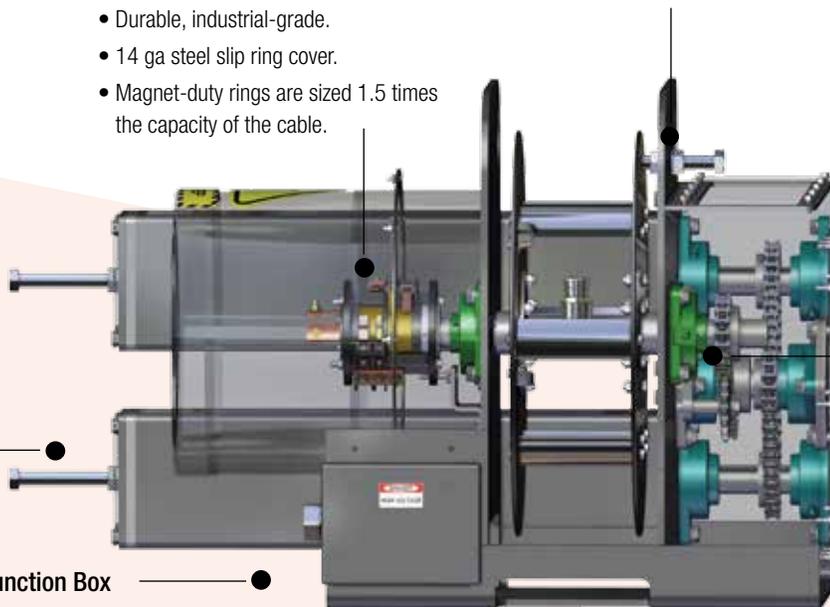
- Easily adjusted with a standard 1 1/8" hex socket or wrench.

## Slip Ring Assembly

- 35 amps to 400 amps at 600 volts. [Two-conductor, 110A ring shown below.]
- Durable, industrial-grade.
- 14 ga steel slip ring cover.
- Magnet-duty rings are sized 1.5 times the capacity of the cable.

## Spool Lock

- Prevents the spool from rotating during installation or maintenance.



## Long Lasting Chain and Sprocket Drive

- ANSI # 50 roller chain; over 6,000 lb tensile strength. Commonly used on a variety of heavy industrial equipment, conveyors, agricultural machinery, and motorcycles.
- Sprocket ratios are chosen based on the application, the cable used, and the number of spring motors.

## Safety Wire

- Prevents unauthorized removal of spring housing cover.

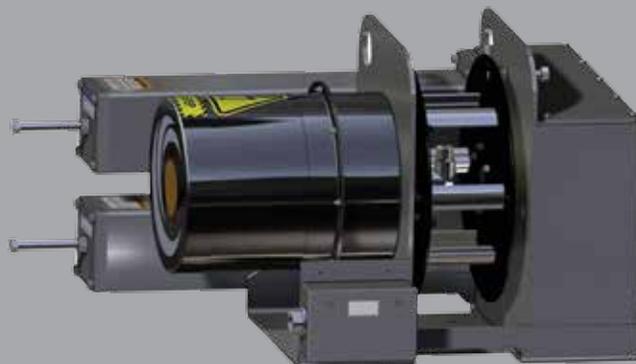
## Junction Box

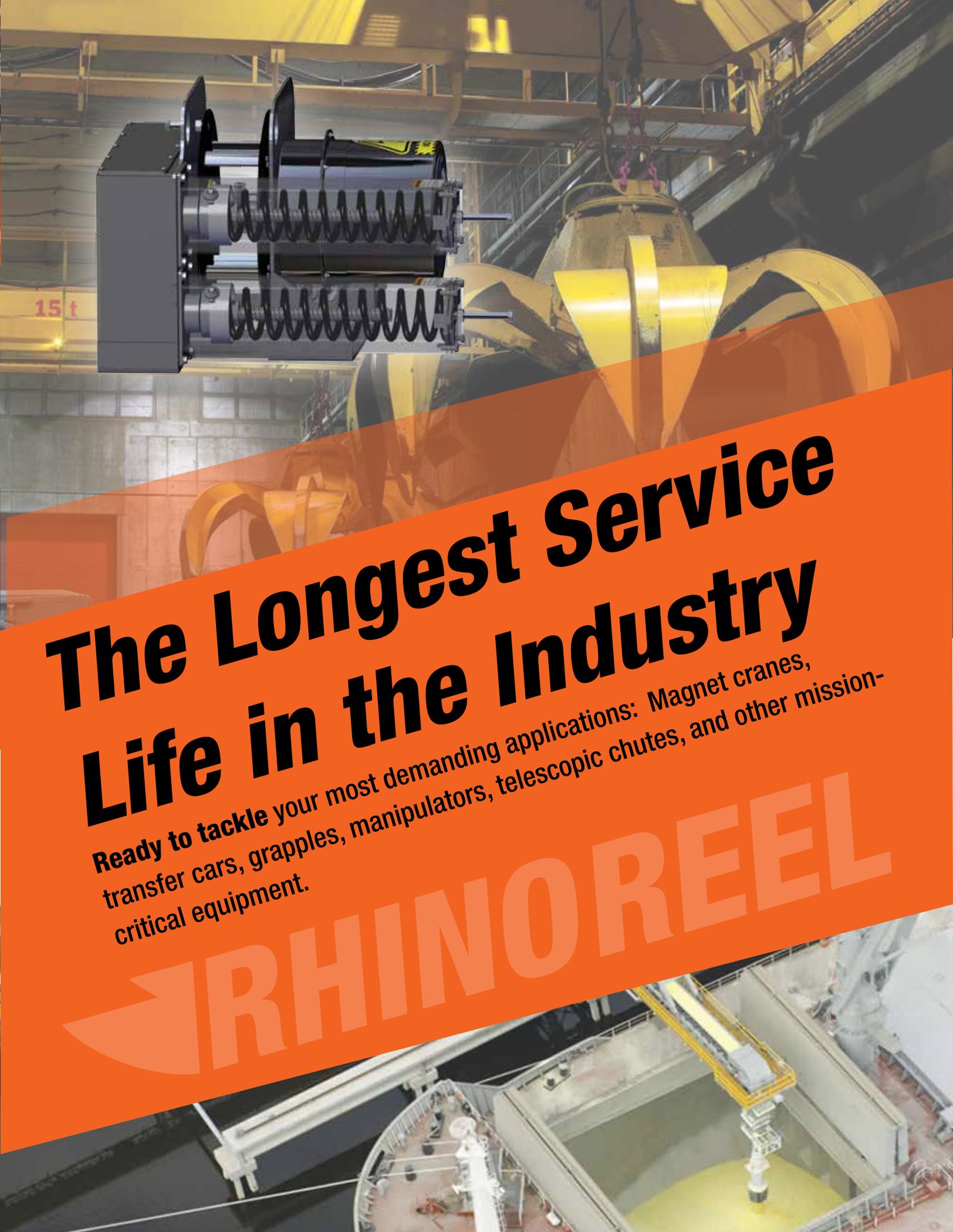
- NEMA 4 rated; generously sized to make wiring easy.

Rugged From Top to Bottom . . . RHINOREEL Can Handle It

## The Mill Duty Linear Spring Reel

- ▶ The RHINOREEL's mechanical and electrical compartments are water and dust tight. Built to NEMA 4 standards; suitable for indoor and outdoor use.
- ▶ Steel surfaces are primed and finished with AUE 360 high solids polyurethane, commonly used for construction equipment.
- ▶ Reels can be configured to accommodate cables from 2 to 36 conductors. Standard SOOW, Type W, Type G-GC, and premium cables are available.
- ▶ RHINOREELS are available with optional cable guides, pivot base, cable grips, and cable protection devices.
- ▶ Slip Rings are rated from 35 to 400 amps at 600 volts maximum. Combination power and signal slip rings are available. Silver plated rings and silver graphite brushes can be provided by request.
- ▶ The reel can handle retraction speeds of up to 150 ft per min. For higher speeds, contact the factory.





# The Longest Service Life in the Industry

Ready to tackle your most demanding applications: Magnet cranes, transfer cars, grapples, manipulators, telescopic chutes, and other mission-critical equipment.

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