# **Cord & Cable Reels**

## **Reel Construction**

### Five Basic Parts:

**Base/Stand:** Supports and mounts the reel **Spring Motor:** Motor which rotates the spool **Spool:** Composed of a Drum and two Flanges

Slip Ring: Transfers power from a stationary source to rotating source

Roller Guide: Guides the cable during payout and rewind



#### **Definition of Terms:**

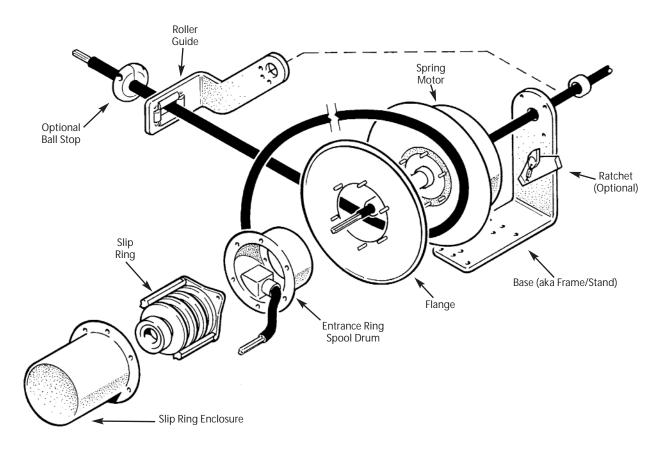
Active Length: The difference between the minimum and maximum payout of cable Safety Wrap: Cable that stays on the reel at maximum payout (Usually 2 complete wraps) Sag Factor: The effect of gravity on actual travel length during stretch applications (6% - 10%)

Lift Height: The distance between where the cable lays to the center line of spool

Payout: Pulling cable out of the reel

Retract or Rewind: Rewinding cable back into the reel

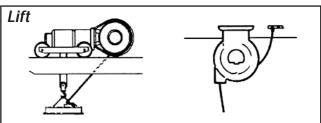
## **Components of a Cable Reel**



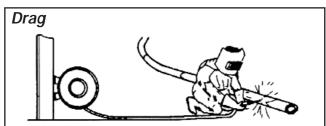


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## **Specifying Your Cable Reel**

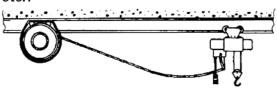


The reel needs to "lift" the cable vertically. The reel is usually stationary. Cable is pulled out of the reel by machine or by hand (as with an overhead lightsource or a pendant station.)



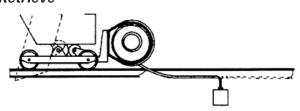
The reel needs to "drag" the cable through supports or along the ground horizontally. The reel is usually stationary. Cable can be pulled out by hand or by machine. Note: This application is the hardest on cable life.

### Stretch



The cable is "stretched" horizontally and is unsupported. The reel may be stationary mounted or mounted onto moving equipment. Cable is pulled out by machine. An extra 6% -10% in cable beyond active travel is required for cable saq.

#### Retrieve



The reel needs to pickup ("retrieve") the cable. The reel is mounted on moving equipment. Cable is pulled out by machine.

Follow these three steps to make sure you get the best reel for your application needs. Your local representative or the sales team at our factory are glad to help if you need additional assistance.

## Step 1: Mechanical Requirements:

- How will the reel be used? Stretch, Lift, Drag, or Retrieve? (See left for guidance)
- What type of environment will the reel be located in? (Indoors, outdoors, corrosive environment)
- What is the Duty Cycle? (How often will be reel payout and retract?)
- What is the maximum speed of equipment?
  (Maximum recommended speed is 150 feet per minute)

### Step 2: Electrical Requirements:

- How much amperage is the cable expected to handle?
- At what voltage?
- What will the reel be required to handle: power, control, or communication signals?
- How many total conductors are required? (Please include one conductor for dedicated ground)
- What gauge (AWG) cable is required? The amperage and total number of conductors required will determine the gauge

## Step 3: Cable Length Requirements:

- ADD: Active Length: The difference between the minimum operating payout
- PLUS: Inactive Length: Cable that always stays our of the reel, even at full retration
- PLUS: Safety Wrap:\* Cable that stays on the reel at maximum payout - See note below for details
- PLUS: Sag Factor (Stretch Only): Add 10% to Active and Inactive Length total
- Lift Height (Drag/Retrieve): The distance between where the cable lays up to the spool center line. Max 4'
- Hook up Length: Cable required for termination at both ends - 2-3' Spool End
- \* NOTE: Series 4000 = 2'
  - Series 5000 = 2'
  - Series 6000 = 5'
  - Series 7000 = 5'
  - Series 8000 = 3'



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# **Quick Index & Application Guide**

# **Quick Index & Application Guide**

	Typical Applications					
		Commercial	Light	General	Heavy-Duty	Hazardous
		Facilties	Industrial	Industrial	Industrial	Locations
		Dry environments	Dry environments	Dry environments	Dry or wet areas where	Classified per NEC
		where no rain,	where no rain,	where subject	rain, spray or other	article 500 & where
		spray or other	spray or other	to frequent use to	moisture is present. Reel	rain, spray or other
		moisture is present	moisture is present	supply light or power	used to supply light or	moisture is present.
		such as workshops	such as workshops	to portable or moving	power to portable or	
Reel Series		& auto garages.	& auto garages.	equipment.	moving equipment.	
3000 Commercial Duty		•	•			
2900 Light Duty		•				
4000 Industrial Duty			•	•		
5000 Industrial Duty			•	•	•	
6000 Heavy Duty Industrial				•	•	
7000 Heavy Duty Industrial				•	•	
8000 Hazardous Location			•	•		•
1400 Hand Wind		•	•			
SDR Grounding Reels		•	•	•		