Since 1911, Gleason Reel Corp. has been in the business of CABLE MANAGEMENT. Our products are designed to convey and protect valuable cables and hoses that power and control moving machines of all types. They improve productivity and safety on the job by moving cables and hoses away from hazardous locations on machinery or the shop floor into a controlled environment. Whether you choose Reels for efficient storage and payout from virtually any angle, Festoon Systems for overhead applications or PowerTrak® for protection on machinery in motion, your cables and/or hoses will last longer and provide better service with a cable management system from Gleason Reel Corp… …The Cable & Hose Management Company!

In your area contact:

HUBBELL®
A Hubbell Company

Gleason Reel Corp.
P.O. Box 26 • 600 South Clark St.
Mayville, Wisconsin 53050-0026
Phone: 920-387-4120
Fax: 920-387-4189

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Bulletin CR-8

CR-8
ON THE COVER: Typical Gleason Series "S" reel mounted on an overhead crane for heavy duty, high cycle, vertical lift service.

WARRANTY
Gleason warrants for a period of twelve (12) months after date of shipment, all goods manufactured by it to be free from defects in material and workmanship. If, within such warranty period, any such goods are proved, to Gleason's satisfaction, to be defective, such goods shall be returned, or, at Gleason's option, replaced f.o.b. Gleason's factory, without charge. Gleason's obligation shall be limited to the warranty extended to Gleason by the supplier.

The foregoing warranty shall not apply to goods not manufactured by Gleason, or to goods which shall have been repaired or altered by others than Gleason so as, in Gleason's judgement, adversely to affect the same, or which shall have been subject to other than normal use, or storage. With respect to goods furnished but not manufactured by Gleason, the warranty obligations of Gleason shall be in all respects conform and be limited to the warranty extended to Gleason by the supplier.

The foregoing warranty is in lieu of all other express or implied warranties (except of title) and of all other obligations of Gleason.

### Table 1 Series "S"

"EXTRA CABLE AT REEL" for Series "S" reels includes one safety wrap around the drum, cable through the shaft and cable connections to the slip ring leads.

When you have selected a real model, the model number will indicate drum diameter and slip ring assembly code.

Using the lift example from the facing page:

Reel Model No.: S16801 - 103 - 9 - 1

<table>
<thead>
<tr>
<th>Drum Dia.</th>
<th>EXTRA CABLE AT REEL (FEET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>6</td>
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<tr>
<td>14</td>
<td>7</td>
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<td>16</td>
<td>8</td>
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<tr>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>20</td>
<td>10</td>
</tr>
</tbody>
</table>

### Table 2 Series "WB"

EXTRA CABLE AT REEL" for Series "WB" reels includes one safety wrap around the active cable drum, inactive cable to compensate for rotation of active drum and cable through the shaft and cable connections to the slip ring leads. EXAMPLE: Model S6-20-25 with an active travel of 40.0 ft. will need (40 x 0.23) + 5 feet of cable, rounded up. 40 x 0.23 = 9.2; 9.2 + 5 = 14.2; 14.2 rounded up = 15 feet extra cable required.

### Table 3 Type SO Cable—600 Volt

<table>
<thead>
<tr>
<th>AWG</th>
<th>No. Cond.</th>
<th>Dia. In.</th>
<th>Weight In. lbs/ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>7</td>
<td>0.0944</td>
<td>0.374</td>
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<tr>
<td>17</td>
<td>6</td>
<td>0.116</td>
<td>0.517</td>
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<tr>
<td>16</td>
<td>5</td>
<td>0.138</td>
<td>0.771</td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>0.180</td>
<td>1.246</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>0.232</td>
<td>1.915</td>
</tr>
<tr>
<td>10</td>
<td>2</td>
<td>0.305</td>
<td>2.637</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>0.380</td>
<td>3.336</td>
</tr>
</tbody>
</table>

### Table 4 Type W Cable—600 Volt

<table>
<thead>
<tr>
<th>AWG</th>
<th>Size</th>
<th>No. Cond.</th>
<th>Dia. In.</th>
<th>Weight In. lbs/ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2</td>
<td>0.789</td>
<td>0.329</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>0.894</td>
<td>0.470</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0.965</td>
<td>0.582</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>1.082</td>
<td>0.620</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>1.246</td>
<td>0.789</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5 Type G-GC Cable—600 Volt

<table>
<thead>
<tr>
<th>Type SO Standard Cable—600 Volt</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 4 0.420 0.122</td>
</tr>
<tr>
<td>14 4 0.447 0.165</td>
</tr>
<tr>
<td>12 4 0.405 0.207</td>
</tr>
</tbody>
</table>

Whenever possible, refer to specific manufacturer's information regarding cable. If this information is not available, these charts are composite and may be used as guides to typical cable sizes and weights.

Refer to National Electric Code for amper rating and other details.

### General Information

- Types in This Catalog
- Ordering
- Description of Reels
- Slip Rings
- Spring Motors
- Cable Length
- Gleason Product Line

### Selection

- How to Select
- Selection Chart

### Technical Data—Series S Cable Reels

- Optional Accessories
- Model S14 Direct Drive
- Model S16 Direct Drive
- Model S18 Direct Drive
- Model S21 Direct Drive
- Model S21 Gear Drive
- Model S24 Direct Drive
- Model S24 Gear Drive
- Model S28 Direct Drive
- Model S28 Gear Drive
- Model S32 Direct Drive
- Model S32 Gear Drive

### Technical Data—Series S Cable Reels

- Cable Length Calculations
- Typical Cable Specifications

### Technical Data—Series WB Cable Reels

- Selection Charts
- Technical Data
- Cable

### Technical Data—Series "WB"

- SLIP RING ASSEMBLY

### Technical Data—Series "WB"

- AWG No. Dia Weight
- Model No. EXTRA CABLE AT REEL (FEET)
- Series "WB"
Cable Length

Don’t Cut Yourself Short!

CALCULATIONS FOR ORDERING OR CUTTING

\[ \text{Cable Length} = 1 + 2 + 3 \]

1. EXTRA CABLE AT REEL, shown in TABLE 1 or TABLE 2 on the facing page, is REQUIRED for internal connections and one safety wrap. The safety wrap is wound onto the reel.

2. ACTIVE CABLE is the amount of cable you will require to cover the Active Travel distance. THIS CABLE IS NOT TO BE WOUND ONTO THE REEL. See “Selecting”.

3. OVERHANG means any extra cable you require beyond Active Travel. THIS CABLE MUST NOT BE WOUND ONTO THE REEL. The reel is not designed to wind or lift the weight of this extra cable.

**EXAMPLES**

**Lift**

A reel is needed for lifting 10C #14 cable. Active Travel is 40.0 ft. Lift Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Active Cable is equal to the 40.0 ft. of Active Travel.

3. No overhang is required.

**Stretch**

A reel is needed for stretching 10C #14 cable in one direction. Active Travel is 40.0 ft. Stretch Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of the 6% sag, Active Cable is greater than the 40.0 ft. of Active Travel.

3. Active Cable = Active Travel x 1.01

\[ \text{Active Cable} = 40.0 \times 1.01 = 40.4 \text{ ft.} \]

4. Overhang of 3.5 feet is required.

**Retrieve**

A reel is needed for retrieving 10C #14 cable. Active Travel is 40.0 ft. and reel is mounted 2.5 ft. above the ground (lift height). Retrieve Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of LIFT HEIGHT, Active Cable is greater than the 40.0 ft. of Active Travel.

- 2.1 Active Travel = 40.0 ft.
- 2.2 Lift Height = 2.5 ft.
- 2.3 Active Cable = 40.0 + 2.5 = 42.5 ft.

3. Overhang of 3.5 feet is required.

**Cable Length**

Don’t Cut Yourself Short!

**CALCULATIONS** FOR ORDERING OR CUTTING

\[ \text{Cable Length} = 1 + 2 + 3 \]

1. **EXTRA CABLE AT REEL**, shown in TABLE 1 or TABLE 2 on the facing page, is REQUIRED for internal connections and one safety wrap. The safety wrap is wound onto the reel.

2. **ACTIVE CABLE** is the amount of cable you will require to cover the Active Travel distance. THIS CABLE IS NOT TO BE WOUND ONTO THE REEL. See “Selecting”.

3. **OVERHANG** means any extra cable you require beyond Active Travel. THIS CABLE MUST NOT BE WOUND ONTO THE REEL. The reel is not designed to wind or lift the weight of this extra cable.

**EXAMPLES**

**Lift**

A reel is needed for lifting 10C #14 cable. Active Travel is 40.0 ft. Lift Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Active Cable is equal to the 40.0 ft. of Active Travel.

3. No overhang is required.

**Stretch**

A reel is needed for stretching 10C #14 cable in one direction. Active Travel is 40.0 ft. Stretch Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of the 6% sag, Active Cable is greater than the 40.0 ft. of Active Travel.

\[ \text{Active Cable} = \text{Active Travel} \times 1.01 \]

\[ = 40.0 \times 1.01 = 40.4 \text{ ft.} \]

3. Overhang of 3.5 feet is required.

**Retrieve**

A reel is needed for retrieving 10C #14 cable. Active Travel is 40.0 ft. and reel is mounted 2.5 ft. above the ground (lift height). Retrieve Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of LIFT HEIGHT, Active Cable is greater than the 40.0 ft. of Active Travel.

\[ \text{Active Cable} = \text{Active Travel} + \text{Lift Height} \]

\[ = 40.0 + 2.5 = 42.5 \text{ ft.} \]

3. Overhang of 3.5 feet is required.

REMINDER: Cable Length is NEVER equal to Active Travel or Total Travel.

NOTE: IF GLEASON SUPPLIES THE CABLE, correct cable length, rounded up to the nearest foot, is automatically calculated based on your input.

IF YOU ARE CUTTING YOUR OWN CABLE, please follow our calculation method shown on this page.

Reels in this catalog are calculated to handle factors and ONLY. If you have any OVERHANG (factor 3), we will be happy to make specific reel model calculations for you.

**Calculations**

**Lift**

A reel is needed for lifting 10C #14 cable. Active Travel is 40.0 ft. Lift Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Active Cable is equal to the 40.0 ft. of Active Travel.

3. No overhang is required.

**Stretch**

A reel is needed for stretching 10C #14 cable in one direction. Active Travel is 40.0 ft. Stretch Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of the 6% sag, Active Cable is greater than the 40.0 ft. of Active Travel.

\[ \text{Active Cable} = \text{Active Travel} \times 1.01 \]

\[ = 40.0 \times 1.01 = 40.4 \text{ ft.} \]

3. Overhang of 3.5 feet is required.

**Retrieve**

A reel is needed for retrieving 10C #14 cable. Active Travel is 40.0 ft. and reel is mounted 2.5 ft. above the ground (lift height). Retrieve Selection Chart shows Model No. S16801-103-2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of LIFT HEIGHT, Active Cable is greater than the 40.0 ft. of Active Travel.

\[ \text{Active Cable} = \text{Active Travel} + \text{Lift Height} \]

\[ = 40.0 + 2.5 = 42.5 \text{ ft.} \]

3. Overhang of 3.5 feet is required.

**NOTE:**

- Extra cable at the reel requires five extra feet of cable at the reel.
- Extra cable at the reel is REQUIRED for internal connections and one safety wrap.
- Active Cable is the amount of cable you will require to cover the Active Travel distance. THIS CABLE IS NOT TO BE WOUND ONTO THE REEL. See “Selecting”.
- Overhang means any extra cable you require beyond Active Travel. THIS CABLE MUST NOT BE WOUND ONTO THE REEL. The reel is not designed to wind or lift the weight of this extra cable.

**NOTE:**

- If reel and cable will be required to lift and support the weight of any kind, this must be considered. Consult factory.

**NOTE:**

- Because of LIFT HEIGHT, Active Cable is greater than the 40.0 ft. of Active Travel.

\[ \text{Active Cable} = \text{Active Travel} \times 1.01 \]

\[ = 40.0 \times 1.01 = 40.4 \text{ ft.} \]

**NOTE:**

- If reel and cable will be required to lift and support the weight of any kind, this must be considered. Consult factory.

**NOTE:**

- Extra cable at the reel requires five extra feet of cable at the reel.
- Extra cable at the reel is REQUIRED for internal connections and one safety wrap.
MACHINE MOUNTABLE

Reels in this catalog are intended for mounting on machinery where automatic (unattended) movement is required. Other Gleason cable reels are available for hand pull applications. Please consult us for recommendations.

FULL RANGE OF ACCESSORIES AVAILABLE...

✓ Three-position Roller Guides
✓ 3400 Pivot Base
✓ Spool Lock
✓ Rotary Limit Switch
See "Dimensional Data" for Details

AVAILABLE FOR ALL STANDARD AND MOST SPECIAL REQUIREMENTS

This catalog provides details on sizes, capacities, specifications and designs. If you need additional information, contact your local factory representative. Full support is available upon request.

SIMPLE, POSITIVE CABLE ENTRANCE... A positive, watertight connector is provided at the shaft where the cable enters the spool area. Cable feeds easily through the hollow shaft for termination within the slip ring enclosure. Connections are required at one point only.

EASILY REMOVABLE SLIP RING ENCLOSURE... Removes quickly for inspection or service by virtue of the three toggle clamps. An "O" ring seal provides a watertight, dust-tight seal suitable for any type of atmosphere.

OPTIONAL ENCLOSURES, designed for hazardous areas (Class I and Class II), are available upon request.

FAST, EASY BRUSH REPLACEMENT... Gleason's brush holder assembly features a unique spring design which permits quick brush removal while ensuring full contact throughout the life of the brush.

FIBER OPTICS

Any fiber optic cable of the same approximate O.D. as SO shielded cable listed can be used with Series "WB" reels. Contact your local factory representative for details.
CONTINUOUS CONTACT
WB REELS

Gleason WB Reels are continuous contact reels ideal for use in applications where slip ring assemblies are not desired. No slip rings or other sliding contacts are used. Rather, a dual spool and pulley system safely and efficiently pays out and rewinds the cable.

The absence of electrical contact points on WB Reels makes them an outstanding choice for applications involving portable or movable communication or instrumentation equipment. Such equipment could be adversely affected by the varying resistance of sliding electrical contacts or undue twisting of cords or cables resulting in varying impedance. WB Reels are also a smart choice for hazardous locations where electrical parts on the reel would require dust-tight or explosion-proof protection.

A roller guide is included as standard equipment. A holding dog for window shade-type action can be furnished when required.

FIBER OPTIC CABLE of same approximate O.D. as SO shielded cable listed can be used with Series "WB" reels. Contact your factory representative for details.

WB Reels are selected using the standard process shown in the front of this catalog. Reel models in selection charts based on travel speed of 150 fpm and 4 conductor shielded cable. Stretch reels based on 6% sag. Retrieve reels based on 3 ft lift to center line of reel.

Necessary reeling tensions suggest the use of high quality cable for good service life.

FOR CABLE SIZES NOT LISTED, CONSULT YOUR FACTORY REPRESENTATIVE.

MAXIMUM CABLE O.D. = 0.625"

FEET OF ACTIVE TRAVEL

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
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<th>120</th>
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FEET OF ACTIVE TRAVEL

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<th>80</th>
<th>90</th>
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FEET OF ACTIVE TRAVEL

<table>
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<tr>
<th>WIRE SIZE (AWG)</th>
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<th>50</th>
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<th>70</th>
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<th>90</th>
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<td>18</td>
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</tr>
</tbody>
</table>

RUGGED FRAME BUILT TO LAST...
All-welded steel frame is fabricated from permanent welding fixtures to assure perfect alignment. A time-honored Gleason design places major operating components outboard of the frame for ready serviceability. Entire unit is painted with baked polyester for a long-lasting, durable finish.

EVEN WINDING IN MULTIPLE LAYERS...
Edges of steel flanges on cable spool are die-formed to eliminate cable pileup in corners. Segmenting of inner drum permits adjustability to suit various cable diameters – a slight change in cable size may be accommodated by the same reel with only minor field adjustment.

QUICK, ONE PIECE REMOVAL...
The entire slip ring assembly can be replaced as a unit, if necessary. No need to handle small parts. To remove, simply disconnect wiring and loosen two set screws on the shaft-locking collar.
**SAFETYCHANGE® SPRINGS ARE INDUSTRY’S FINEST!**

Gleason uses high-quality spring steel to manufacture these “self-contained” main springs. All springs are lifetime lubricated prior to sealing in disposable Safetychange® housings. When used on multi-spring reels, all springs are connected in parallel so that, in the event that one spring fails, the reel is never without tension. This is a significant safety feature.

**DESIGNED WITH SAFETY IN MIND...**

The Safetychange® spring motor is a power spring sealed in a disposable housing, eliminating the need to handle loose springs. Located outboard on the frame, replacement is safe and easy and does NOT require the reel to be removed from its frame. All Safetychange® spring motors are equipped with an inspection hole to visually check the integrity of the spring while reel is in service.

**FREE-WHEELING HUB FOR SPRING MOTOR...**

Gleason’s unique free-wheeling spring hub design allows for easy cable installation and spring tension adjustment. In addition, it protects the spring motor in the event that the cable is severed.

**SAFE, SIMPLE SPRING TENSION ADJUSTMENT...**

To adjust spring tension, simply remove the inspection cover and adjust with spanner wrench provided. No need to disconnect cable or disassemble reel. The correct number of spring pretension turns is indicated on each reel nameplate.

**SAFETY IN MIND...**

All Safetychange® spring motors are equipped with an inspection hole to visually check the integrity of the spring while reel is in service.
### Direct Drive

#### Dimensions & Optional Accessories

**DIMENSIONS**

- **Slip Ring Side**
  - Line Entrance 1.50 Pipe Thread
  - 1.75 Clearance
  - 8.00 Diameter
- **Spring Side**
  - 9.75 Diameter
  - 1.12 Diameter
  - 6.25 Diameter
  - 4.00 Diameter
  - 1.00 Diameter
  - 1.00 Diameter

**SLIP RING HOUSING DIMENSIONS**

<table>
<thead>
<tr>
<th>Second Series of Digits in Model Number</th>
<th>&quot;A&quot; Dimension in Inches</th>
<th>&quot;C&quot; Dimension in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>S32801</td>
<td>10.00</td>
<td>18.50</td>
</tr>
<tr>
<td>S32802</td>
<td>11.25</td>
<td>23.50</td>
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<tr>
<td>S32803</td>
<td>13.88</td>
<td>26.00</td>
</tr>
<tr>
<td>S32804</td>
<td>16.50</td>
<td>29.00</td>
</tr>
</tbody>
</table>

**SPRING MOTOR DIMENSIONS**

- **MODEL NUMBER**
  - "B" Dimension in Inches
  - "D" Diameter in Inches
  - Approximate Net Weight of Reel with Spring Motor(s)

**OPTIONAL ACCESSORIES**

- **Vertical Roller Guide**
  - Part No. 039712
- **Hoop Guide Assembly**
  - Part No. 039712
- **Horizontal Roller Guide**
  - Part No. 040490
- **Spring Motor**
  - Part No. 056987
- **Slip Ring**
  - Part No. 056987

**NOTE:** Above illustration includes some of the optional accessories described below.

**SUPERIOR BEARINGS**

All bearings are self-aligning, sealed and pre-lubricated for long and dependable life.

**PROTECTED GEARING**

Gears used for reeling longer lengths of cable are protected from dust and moisture by a sealed housing. External grease fitting permits lubrication of gears during service without opening the enclosure. Various gear ratios are available to match specific reeling requirements.

**NO SWEAT, NO STRAIN GEAR REMOVAL**

Gleason’s unique design permits gears to be changed without disassembly of major frame components. Simply remove the spring motor and its removable back plate to fully expose gears for fast, easy changeover.

**SLIP RING HOUSING DIMENSIONS**

<table>
<thead>
<tr>
<th>S32801</th>
<th>S32802</th>
<th>S32803</th>
<th>S32804</th>
<th>S321001</th>
<th>S321002</th>
<th>S321003</th>
<th>S321004</th>
</tr>
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<tbody>
<tr>
<td>&quot;B&quot; Dimension in Inches</td>
<td>&quot;A&quot; Dimension in Inches</td>
<td>&quot;C&quot; Dimension in Inches</td>
<td>&quot;D&quot; Diameter in Inches</td>
<td>&quot;B&quot; Dimension in Inches</td>
<td>&quot;A&quot; Dimension in Inches</td>
<td>&quot;C&quot; Dimension in Inches</td>
<td>&quot;D&quot; Diameter in Inches</td>
</tr>
<tr>
<td>10.00</td>
<td>18.50</td>
<td>23.50</td>
<td>26.00</td>
<td>13.88</td>
<td>14.38</td>
<td>14.38</td>
<td>14.38</td>
</tr>
<tr>
<td>11.25</td>
<td>21.00</td>
<td>25.00</td>
<td>29.00</td>
<td>16.50</td>
<td>14.38</td>
<td>14.38</td>
<td>14.38</td>
</tr>
<tr>
<td>13.88</td>
<td>21.00</td>
<td>25.00</td>
<td>29.00</td>
<td>19.62</td>
<td>14.38</td>
<td>14.38</td>
<td>14.38</td>
</tr>
</tbody>
</table>

**MODEL NUMBER**

- **SPRING MOTOR DIMENSIONS**
- **VERTICAL ROLLER GUIDE**
  - Part No. 040490
- **Hoop Guide Assembly**
  - Part No. 039712
- **Horizontal Roller Guide**
  - Part No. 040490
- **Spring Motor**
  - Part No. 056987
- **Slip Ring**
  - Part No. 056987

**NOTE:** Above illustration includes some of the optional accessories described below.

**SUPERIOR BEARINGS**

All bearings are self-aligning, sealed and pre-lubricated for long and dependable life.

**PROTECTED GEARING**

Gears used for reeling longer lengths of cable are protected from dust and moisture by a sealed housing. External grease fitting permits lubrication of gears during service without opening the enclosure. Various gear ratios are available to match specific reeling requirements.

**NO SWEAT, NO STRAIN GEAR REMOVAL**

Gleason’s unique design permits gears to be changed without disassembly of major frame components. Simply remove the spring motor and its removable back plate to fully expose gears for fast, easy changeover.
How to Select Reels

Gleason Electric Cable Reels are assembled from several components with a great variety of combinations possible. In order to select the CORRECT reel from the selection charts on the following pages, follow STEPS 1-3 on this page.

**STEP 1 Identify Your Cable**

Cable is the WHAT in reel selection. WHAT is the size (AWG) and number of conductors? Reel calculations are based on the cable weight per foot, Active Travel and cable O.D. Fill in “Selection Input Required” on the facing page for each reel you order.

**STEP 2 Identify Your Application**

Application is the HOW in reel selection. From the applications on the facing page, choose the one that resembles the way you are applying the cable in STEP 1 above. There are specific selection charts on the following pages for each application type. Reel calculations are based on HOW you want to handle the cable. Note: Identify any added weight such as extra cable (overhang) or pushbutton stations – Selection charts do NOT consider any added weight.

**STEP 3 Select a Reel Model**

Applying your input from STEP 1 and STEP 2, the correct reel model number may be found in one of the Selection Charts on the following pages. From the applications on the facing page, choose the one that resembles the way you are applying the cable in STEP 1 above. There are specific selection charts on the following pages for each application type. Reel calculations are based on HOW you want to handle the cable. Note: Identify any added weight such as extra cable (overhang) or pushbutton stations – Selection charts do NOT consider any added weight.

EXAMPLE: A reel must LIFT, TURN TO LIFT CHART, #14 AWG, 10 conductor cable. FIND “14-AWG, 10 CONDUCTOR” ROW, then FOLLOW “40 FEET” COLUMN DOWN TO “14-AWG, 10 CONDUCTOR” ROW. THE INTERSECTION IS THE CORRECT REEL MODEL – S16801 - 103 - 9 - 1.

For requirements not fully covered in the Selection Charts such as cable sizes, greater Active Travel or greater weight, contact your factory representative. We will be happy to make specific calculations for you.

**Definition of terms**

- **Active Travel** = The DISTANCE in ONE DIRECTION from reel centerline to full extension of cable; the TRAVEL allowed by one full cable extension. See Figures 1 & 2 below.
- **Total Travel** = The TOTAL DISTANCE reel is to service. See Figures 1 & 2 below.
- **Payout** = The ACTION of cable winding off of the reel, in one or two directions. See Figures 1 & 2 below.
- **Cable Length** = The total AMOUNT of cable REQUIRED for connections, unwind/wind, SAG (if any) and “extra” lengths you require. See “Cable Length–Don’t Cut Yourself Short” at the back of this catalog.

**REMEMBER:** Cable Length is NEVER equal to Active Travel or Total Travel!

**Fig. 1**

**ONE-WAY PAYOUT**

TOTAL TRAVEL = ACTIVE TRAVEL

**Fig. 2**

**TWO-WAY PAYOUT**

TOTAL TRAVEL = ACTIVE TRAVEL x 2
Dimensional Data & Optional Accessories

**DIMENSIONS**

- **Spring Side**
  - Diameter: 3.00
  - Depth: 7.00
  - Clearance: 1.75

- **Spring Motor Dimensions**
  - **B** Dimension-inches: 8.50
  - **D** Diameter-inches: 14.38
  - Approx. Net Weight-lbs.*: 165

**OPTIONAL ACCESSORIES**

- **Loop Guides**
  - Part No. 012087
  - Vertical Guide: 9.50
  - Horizontal Guide: 6.25

- **Rotary Limit Switch**: Part No. 012092

- **Dog and Ratchet Assy.**: Part No. 012090

- **Spool Lock**: Part No. 012091

- **Spring Lock**: Part No. 012092

- **Rotary Limit Switch**: Part No. 012092

- **Vertical Down Roller Guide**: Part No. 012089

**S28 DIRECT DRIVE**

Common Applications

**HORIZONTAL STRETCH**

Cable payout, as pictured above, denotes reverse rotation.

**VERTICAL LIFT**

Vertical Lift refers to any application where the cable is simply hoisted vertically with only the weight of the cable involved. Special consideration must be given to any weight added to the end of the cable such as a push button station or overhang (i.e. extra cable).

**RETRIEVE**

A horizontal retrieve application is identified when the reel is mounted on the moving equipment and winds and pays-out cable into tray or other support. A vertical retrieve application is much the same as a vertical lift except, in this case, the reel is located below rather than above the machine.

**DRAG**

In drag applications, the reel is stationary. As the machine moves, cable is pulled off of the reel and "dragged" over the surface. Dragging produces wear on the cable and is NOT a recommended application.

---

**Selection INPUT Required**

- **Type of Application**
  - Lift
  - Stretch
  - Retrieve
  - Drag

- **Active Travel**
- **Size (AWG)**
- **No. Cond.**

- **Include the following information if it is different than the cable data at the back of this catalog for the cable size listed above:**
  - O.D.
  - Weight (lbs/ft)

---

**Model Number Explanation**

**SLIP RING HOUSING DIMENSIONS**

- **A** Dimension-inches: 16.00
- **C** Dimension-inches: 8.50

**SPRING MOTOR DIMENSIONS**

- **B** Dimension-inches: 8.50
- **D** Diameter-inches: 14.38
- Approx. Net Weight-lbs.*: 165

---

**SLIP RING AMPACITY CODE**

**Selection INPUT Required**

- **Type of Application**
  - Lift
  - Stretch
  - Retrieve
  - Drag

- **Active Travel**
- **Size (AWG)**
- **No. Cond.**

- **Include the following information if it is different than the cable data at the back of this catalog for the cable size listed above:**
  - O.D.
  - Weight (lbs/ft)

---

**Common Applications**

**HORIZONTAL STRETCH**

**VERTICAL LIFT**

**RETRIEVE**

**DRAG**

---

**Selection INPUT Required**

- **Type of Application**
  - Lift
  - Stretch
  - Retrieve
  - Drag

- **Active Travel**
- **Size (AWG)**
- **No. Cond.**

- **Include the following information if it is different than the cable data at the back of this catalog for the cable size listed above:**
  - O.D.
  - Weight (lbs/ft)
### Lift/Drag Reels

**SELECTION CHART**

NOTE: Capacities based on speed of 150 ft./min. and acceleration of .50 ft./sec². Capacities based on cable of average weight and diameter. Refer to page 31.

*(See "How to Select Reels" for explanation of Active Travel.)*

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>No. of Cond.</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>S34-305-137-9</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>S24-305-137-9</td>
<td>S18-305-137-9</td>
<td>S16-305-137-9</td>
<td>S14-305-137-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES**

- **Vertical Roller Guide**: Part No. 012085
- **Hoop Guide Assembly**: Part No. 012097
- **Spool Lock Assy.**: Part No. 012080
- **Horizontal Roller Guide**: Part No. 012085

**DIMENSIONS**

- **Slip Ring Housing Dimensions**
  - "A" Dimension in Inches
  - "C" Dimension in Inches
  - Approximate Net Weight of Reel with Spring Motor(s)

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>S24-801</th>
<th>S24-802</th>
<th>S24-803</th>
<th>S24-804</th>
<th>S24-1001</th>
<th>S24-1002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>190 lbs.</td>
<td>245 lbs.</td>
<td>300 lbs.</td>
<td>355 lbs.</td>
<td>200 lbs.</td>
<td>260 lbs.</td>
</tr>
<tr>
<td>Diameter</td>
<td>12.62</td>
<td>15.25</td>
<td>17.88</td>
<td>20.50</td>
<td>13.50</td>
<td>16.88</td>
</tr>
</tbody>
</table>

**NOTE:** Above illustration includes some of the optional accessories described below.

- **Spring Motor Dimensions**

**OPTIONAL ACCESSORIES**

- **Dog and Ratchet**:
  - Part No. 012090

![Dimensional Data & Optional Accessories](image)
DIMENSIONS

Dimensions Data & Optional Accessories

SLIP RING HOUSING DIMENSIONS

Second Series of Digits in Model Number

- "A" Dimension-Inches 15.00 17.50 20.00 22.50 25.00 27.50 29.50
- "C" Dimension-Inches 8.50 11.00 13.50 16.00 21.00 29.00

SPRING MOTOR DIMENSIONS CON’T

- "B" Dimension-in Inches 7.62 10.25 12.88 15.50 18.23 20.86 23.50

OPTIONAL ACCESSORIES

- Vertical Roller Guide
- Horizontal Roller Guide
- Slip Ring Assembly
- Spring Motors
- Rotary Limit Switch
- Tension Adjustment Wrench
- Vertical Down Roller Guide
- 360° Swivel Base
- Dog and Ratchet Assy
- Pressure Lock
- Hoop Guide Assembly
- If Hoop Guides are used, optional Roller Guides may be found on page 16.

COMPLETE DIMENSIONAL DATA is available on the following pages. Refer to the first three digits of the model number.

TRAVELS GREATER THAN 120 FEET are possible for those wire sizes with a ✔ next to them. Consult factory for additional real models.
## Stretch Reels

### Selection Chart

<table>
<thead>
<tr>
<th>Wire Size (AWG)</th>
<th>No. of Cond.</th>
<th>FEET OF ACTIVE TRAVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>2, 4, 6</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>70</td>
</tr>
<tr>
<td>14</td>
<td>2, 4, 6</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>2, 4, 6</td>
<td>30</td>
</tr>
</tbody>
</table>

**NOTE:** Capacities based on 6% sag, speed of 150 ft./min. and acceleration of .75 ft./sec.² Capacities based on cable of average weight and diameter. Refer to page 31.

### How to Select Reels

- Capacities based on cable of average weight and diameter. Refer to page 31.
- Capacities based on 6% sag, speed of 150 ft./min. and acceleration of .75 ft./sec.²

---

### Optional Accessories

- Vertical Roller Guide
  - Part No. 012082
- Spool Lock
  - Part No. 012093
- Dog and Ratchet
  - Part No. 012090
- Hoop Guide Assembly
  - Part No. 012086

---

### Dimensions Data

- **S21**
  - GEARED DRIVE

- **DIMENSIONS**
  - Line Entrance 1.25 Pipe Thread
  - Spring Side
  - Clearances

- **S28**
  - GEARED DRIVE

- **SLIP RING HOUSING DIMENSIONS**
  - Second Series of Digits in Model Number
  - "A" Dimension in Inches
  - "B" Dimension in Inches
  - Approximate Net Weight of Reel with Spring Motor(s)

- **OPTIONAL ACCESSORIES**
  - Vertical Roller Guide
  - Part No. 012082
Retrieve Reels

**SELECTION CHART**

Note: Capacities based on 3 ft. lift to center line of reel, speed of 150 ft./min. and acceleration of 1.0 ft/sec². Capacities based on cable of average weight and diameter. Refer to page 31.

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>No. of Cond.</th>
<th>FEET OF ACTIVE TRAVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>12</td>
<td>18</td>
<td>42</td>
</tr>
<tr>
<td>14</td>
<td>24</td>
<td>60</td>
</tr>
<tr>
<td>16</td>
<td>36</td>
<td>80</td>
</tr>
</tbody>
</table>

(See "How to Select Reels" for explanation of Active Travel.)

---

**S18 DIRECT DRIVE**

**DIMENSIONS**

Second Series of Digits in Model Number

- **A** Dimension-Inches
- **C** Dimension-Inches

**MODEL NUMBER**

- **B** Dimension in inches
- **D** Diameter in inches

Approximate Net Weight of Reel with Spring Motor(s)

**SINGLE**

**SPRING MOTOR DIMENSIONS**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>27</th>
<th>37</th>
<th>47</th>
<th>105</th>
<th>163</th>
<th>243</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>14.30</td>
<td>18.00</td>
<td>19.00</td>
<td>20.50</td>
<td>22.00</td>
<td>25.00</td>
</tr>
<tr>
<td>10</td>
<td>15.50</td>
<td>17.50</td>
<td>20.00</td>
<td>22.50</td>
<td>25.00</td>
<td>27.50</td>
</tr>
<tr>
<td>12</td>
<td>16.50</td>
<td>17.50</td>
<td>19.00</td>
<td>20.00</td>
<td>22.00</td>
<td>25.00</td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES**

- Vertical Roller Guide
  - Part No. 012082
  - Part No. 012082

- Dog and Ratchet Assembly
  - Part No. 012082

- Spool Lock Assembly
  - Part No. 012082

- Horizontal Roller Guide
  - Part No. 012082

- Slip Ring Assembly
  - Part No. 012082

- Rotary Limit Switch
  - Part No. 012082

- Tenax Adjustment Wrench
  - Part No. 012082

- Vertical Down Roller Guide
  - Part No. 012082

- 360° Swivel Base
  - Part No. 012082

---

**NOTE:**

- Weight and diameter. Refer to page 31.

---

**TABLE:**

- Dimensions and optional accessories are provided for S18 Direct Drive models.

---

**DIAGRAM:**

- Diagram showing dimensions and optional accessories for S18 Direct Drive models.

---

**TEXTUAL CONTENT:**

- Selection chart for retrieve reels with specifications and options.

---

**ETC:**

- Various models and configurations available for S18 Direct Drive.

---
Dimensional Data & Optional Accessories

DIMENSIONS

SLIP RING HOUSING DIMENSIONS

<table>
<thead>
<tr>
<th>Second Series of Digits in Model Number</th>
<th>23</th>
<th>27</th>
<th>33</th>
<th>43</th>
<th>53</th>
<th>63</th>
<th>103</th>
<th>123</th>
<th>163</th>
<th>203</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot; Dimension in Inches</td>
<td>15.00</td>
<td>17.50</td>
<td>20.00</td>
<td>22.50</td>
<td>27.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;C&quot; Dimension in Inches</td>
<td>8.50</td>
<td>11.00</td>
<td>13.50</td>
<td>16.00</td>
<td>21.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SPRING MOTOR DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>S1635</th>
<th>S1660</th>
<th>S1621</th>
<th>S1662</th>
<th>S1675</th>
<th>S1680</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;B&quot; Dimension in Inches</td>
<td>7.10</td>
<td>7.10</td>
<td>7.62</td>
<td>7.62</td>
<td>7.62</td>
<td>7.62</td>
</tr>
</tbody>
</table>

OPTIONAL ACCESSORIES

Retrieval Reels Continued

COMPLETE DIMENSIONAL DATA is available on the following pages. Refer to the first three digits of the model number. * TRAVELS GREATER THAN 200 FEET ARE POSSIBLE for those wire sizes with a ✔ next to them. Consult factory for additional reel models.

FEET OF ACTIVE TRAVEL

<table>
<thead>
<tr>
<th>NO. of Cond.</th>
<th>100</th>
<th>120</th>
<th>140</th>
<th>160</th>
<th>180</th>
<th>200+</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIRE SIZE (AWG)</td>
<td>16</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>120 lbs.</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>135 lbs.</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
<td>135</td>
</tr>
<tr>
<td>163 lbs.</td>
<td>163</td>
<td>163</td>
<td>163</td>
<td>163</td>
<td>163</td>
<td>163</td>
</tr>
<tr>
<td>210 lbs.</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
<td>210</td>
</tr>
<tr>
<td>270 lbs.</td>
<td>270</td>
<td>270</td>
<td>270</td>
<td>270</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>315 lbs.</td>
<td>315</td>
<td>315</td>
<td>315</td>
<td>315</td>
<td>315</td>
<td>315</td>
</tr>
<tr>
<td>370 lbs.</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
<td>370</td>
</tr>
<tr>
<td>430 lbs.</td>
<td>430</td>
<td>430</td>
<td>430</td>
<td>430</td>
<td>430</td>
<td>430</td>
</tr>
<tr>
<td>525 lbs.</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
<td>525</td>
</tr>
<tr>
<td>640 lbs.</td>
<td>640</td>
<td>640</td>
<td>640</td>
<td>640</td>
<td>640</td>
<td>640</td>
</tr>
<tr>
<td>780 lbs.</td>
<td>780</td>
<td>780</td>
<td>780</td>
<td>780</td>
<td>780</td>
<td>780</td>
</tr>
<tr>
<td>930 lbs.</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
<td>930</td>
</tr>
<tr>
<td>1110 lbs.</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
<td>1110</td>
</tr>
<tr>
<td>1360 lbs.</td>
<td>1360</td>
<td>1360</td>
<td>1360</td>
<td>1360</td>
<td>1360</td>
<td>1360</td>
</tr>
<tr>
<td>1670 lbs.</td>
<td>1670</td>
<td>1670</td>
<td>1670</td>
<td>1670</td>
<td>1670</td>
<td>1670</td>
</tr>
<tr>
<td>2100 lbs.</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
<td>2100</td>
</tr>
</tbody>
</table>

| 745x82 | 120 FEET OF ACTIVE TRAVEL |
| 817x90 | 160 FEET OF ACTIVE TRAVEL |
| 897x108 | 140 FEET OF ACTIVE TRAVEL |
| 976x125 | 120 FEET OF ACTIVE TRAVEL |

Dimensions, as pictured above, denote standard rotation.
### Optional Accessories

#### ROLLER CABLE GUIDES

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number</th>
<th>Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Mounted Horizontal/Vertical Up*–Steel Rollers**</td>
<td>S14, S16, S21, S24, S28, S32</td>
<td>3.18 x 2.38</td>
</tr>
<tr>
<td>Frame Mounted Vertical Down*–Steel Rollers**</td>
<td>S14, S16, S21, S24, S28, S32</td>
<td>3.18 x 2.38</td>
</tr>
<tr>
<td>Frame Mounted Vertical Down*–Nylon Rollers***</td>
<td>S14, S16, S21, S24, S28, S32</td>
<td>3.18 x 2.38</td>
</tr>
</tbody>
</table>

**“Up” and “Down” assume reel mounted base down.  **Standard rotation. Consult factory for reverse rotation.  ***Standard or reverse rotation.

#### KELLEMS® CABLE GRIP

<table>
<thead>
<tr>
<th>Model</th>
<th>Part Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S14, S18, S21, S24, S28, S32</td>
<td>012079</td>
<td>3.00 x 2.25</td>
</tr>
<tr>
<td>S21, S24, S28, S32</td>
<td>012082</td>
<td>3.00 x 2.25</td>
</tr>
<tr>
<td>S24, S28, S32</td>
<td>012085</td>
<td>4.63 x 2.63</td>
</tr>
<tr>
<td>S26, S32</td>
<td>012067</td>
<td>4.63 x 2.63</td>
</tr>
</tbody>
</table>

#### CABLE STOPS

<table>
<thead>
<tr>
<th>Type</th>
<th>Fits O.D.s</th>
<th>MIN – MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Steel</td>
<td>0.41 – 0.52 x 0.30 – 0.37</td>
</tr>
<tr>
<td></td>
<td>Nylon</td>
<td>0.41 – 0.52 x 0.30 – 0.37</td>
</tr>
<tr>
<td>B</td>
<td>Steel</td>
<td>0.25 – 0.30</td>
</tr>
<tr>
<td></td>
<td>Nylon</td>
<td>0.25 – 0.30</td>
</tr>
</tbody>
</table>

#### SPOOL LOCK

All models...P/N 012091

#### DOG & RATCHET

S14–S28...P/N 012090
S32 only...P/N 039887

#### LIMIT SWITCH

S14–S28...P/N 012092
S32 only...P/N 040449

#### SPRING MOTOR DIMENSIONS

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>&quot;B&quot; Dimension in Inches</th>
<th>&quot;D&quot; Diameter in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>S14351</td>
<td>6.60</td>
<td>10.56</td>
</tr>
<tr>
<td>S14601</td>
<td>6.60</td>
<td>10.56</td>
</tr>
<tr>
<td>S14751</td>
<td>7.12</td>
<td>10.56</td>
</tr>
</tbody>
</table>

Approximate Net Weight of Reel with Spring Motor(s):

85 lbs.  90 lbs.  95 lbs.
**Optional Accessories**

**ROLLER CABLE GUIDES**
- Horizontal/Vertical Up* Cable Guides
- Vertical Down Cable Guide—Steel or Nylon Rollers

<table>
<thead>
<tr>
<th>REEL MODEL</th>
<th>PART NUMBER</th>
<th>WINDOW OPENING (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S14, S16, S21, S24, S26, S28</td>
<td>012090</td>
<td>2.25 x 3.00</td>
</tr>
<tr>
<td>S14, S16, S21, S24, S26, S28</td>
<td>012040</td>
<td>4.63 x 2.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRAME MODEL</th>
<th>PART NUMBER</th>
<th>WINDOW OPENING (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Mounted Vertical Down*—Nylon Rollers***</td>
<td>S14, S16, S21, S24, S26, S28</td>
<td>2.25 x 3.00</td>
</tr>
<tr>
<td>Frame Mounted Vertical Down*—Steel Rollers**</td>
<td>S14, S16, S21, S24, S26, S28</td>
<td>4.63 x 2.63</td>
</tr>
</tbody>
</table>

**Hoop Mounted**
- Vertical Down Cable Guide—Nylon Rollers
- Vertical Down Cable Guide—Steel Rollers

<table>
<thead>
<tr>
<th>REEL MODEL</th>
<th>PART NUMBER</th>
<th>WINDOW OPENING (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S14, S16, S21, S24</td>
<td>012090</td>
<td>2.25 x 3.00</td>
</tr>
<tr>
<td>S14, S16, S21, S24</td>
<td>012040</td>
<td>4.63 x 2.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRAME MODEL</th>
<th>PART NUMBER</th>
<th>WINDOW OPENING (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Mounted Vertical Down*—Nylon Rollers***</td>
<td>S14, S16, S21, S24, S26, S28</td>
<td>2.25 x 3.00</td>
</tr>
<tr>
<td>Frame Mounted Vertical Down*—Steel Rollers**</td>
<td>S14, S16, S21, S24, S26, S28</td>
<td>4.63 x 2.63</td>
</tr>
</tbody>
</table>

**Optional Accessories**

- nylon Rollers
- Steel Rollers

**Type**
- A
- B
- C

**Cable Stops**
- Type A: 3.00” O.D.
- Type B: 3.50” O.D.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>FITS O.D.s MIN – MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>026714/15</td>
<td>0.41 – 0.52</td>
</tr>
<tr>
<td>026716</td>
<td>0.53 – 0.74</td>
</tr>
<tr>
<td>026718</td>
<td>0.75 – 0.99</td>
</tr>
</tbody>
</table>

**SPOOL LOCK**
- all models...P/N 012091

**DOG & RATCHET**
- S14–S28...P/N 012090
- S32 only...P/N 039887

**LIMIT SWITCH**
- S14–S28...P/N 012092
- S32 only...P/N 040449

**SLIP RING HOUSING DIMENSIONS**

- Second Series of Digits in Model Number
  - A” Dimension in Inches
    - 23
  - B” Dimension in Inches
    - 63
  - C” Dimension in Inches
    - 43
  - D” Diameter in Inches
    - 27

**SPRING MOTOR DIMENSIONS**

- “B” Dimension in Inches
  - 6.60
- “D” Diameter in Inches
  - 10.56

**Approximate Net Weight of Reel with Spring Motor(s)**
- 85 lbs.
- 90 lbs.
- 95 lbs.
Cable payout, as pictured above, denotes standard rotation.

**DIMENSIONS**

**SLIP RING HOUSING DIMENSIONS**

<table>
<thead>
<tr>
<th>Second Series of Digits in Model Number</th>
<th>23</th>
<th>33</th>
<th>43</th>
<th>63</th>
<th>83</th>
<th>27</th>
<th>37</th>
<th>47</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A” Dimensions in Inches</td>
<td>15.00</td>
<td>17.50</td>
<td>20.00</td>
<td>22.50</td>
<td>27.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“C” Dimensions in Inches</td>
<td>8.50</td>
<td>11.00</td>
<td>13.50</td>
<td>16.00</td>
<td>21.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SPRING MOTOR DIMENSIONS**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>S16351</th>
<th>S16601</th>
<th>S16621</th>
<th>S16622</th>
<th>S16751</th>
<th>S16801</th>
</tr>
</thead>
<tbody>
<tr>
<td>“B” Dimensions in Inches</td>
<td>7.10</td>
<td>10.56</td>
<td>7.62</td>
<td>10.25</td>
<td>7.62</td>
<td>7.62</td>
</tr>
<tr>
<td>Approx. Net Weight of Reel with Spring Motor(s)</td>
<td>95 lbs.</td>
<td>100 lbs.</td>
<td>120 lbs.</td>
<td>170 lbs.</td>
<td>105 lbs.</td>
<td>135 lbs.</td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES**

- Vertical Roller Guide: Part No. 012082
- Horizontal Roller Guide: Part No. 012082
- Dog and Ratchet Assy: Part No. 012090
- Spool Lock: Part No. 012091
- Slip Ring Assembly
- Spring Motors
- Rotary Limit Switch: Part No. 012092
- Tension Adjustment Wrench
- 340° Swivel Base: Part No. 012077
- Vertical Down Roller Guide: Part No. 012084
Retrieve Reels

### Selection Chart

NOTE: Capacities based on 3 ft. lift to center line of reel, speed of 150 ft./min. and acceleration of 1.0 ft./sec². Capacities based on cable of average weight and diameter. Refer to page 31.

#### Dimensions

**Line Entrance** 1.25
**Vertical Roller Guide**
**Slip Ring Side**

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S18621</td>
<td>5.69 x 21.34</td>
</tr>
</tbody>
</table>

#### Optional Accessories

- **Vertical Roller Guide**
  - Part No. 012082
- **Hose Guide Assembly**
  - Part No. 012085
- **Spray Lock**
  - Part No. 012091
- **Dog and Ratchet Assembly**
  - Part No. 012080
- **Rotary Limit Switch**
  - Part No. 012082
- **Tenon Adjustment Wrench**
  - Part No. 012081
- **Vertical Down Roller Guide**
  - Part No. 012084

#### Spring Motor Dimensions

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>S18621</td>
<td>18.00 x 20.00 x 27.50</td>
</tr>
</tbody>
</table>

#### Cable payout, as pictured above, denotes reverse rotation.

#### Retrieve Reels

### Dimensions & Optional Accessories

- **SLIP RING HOUSING DIMENSIONS**
  - Second Series of Digits in Model Number
  - A: Dimension-Inches
  - C: Dimension-Inches

- **SPRING MOTOR DIMENSIONS**

- **B** Dimension in inches
  - 14.38

- **D** Diameter in inches
  - 140

- Approximate Net Weight of Reel with Spring Motor(s)
  - 200
### Stretch Reels

**SELECTION CHART**

NOTE: Capacities based on 6% sag, speed of 150 ft/min. and acceleration of .75 ft./sec.². Capacities based on table of average weight and diameter. Refer to page 31.

(See "How to Select Reels" for explanation of Active Trails.)

<table>
<thead>
<tr>
<th>Wire Size (AWG)</th>
<th>No. of Cond.</th>
<th>FEET OF ACTIVE TRAVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>S14-351-23-10-2</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>S14-351-33-10-2</td>
</tr>
</tbody>
</table>

**SLIP RING HOUSING DIMENSIONS**

<table>
<thead>
<tr>
<th>Series</th>
<th><em>A</em> Dimension in Inches</th>
<th><em>B</em> Dimension in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second</td>
<td>15.00</td>
<td>17.50</td>
</tr>
<tr>
<td></td>
<td>8.50</td>
<td>11.00</td>
</tr>
</tbody>
</table>

**MODELS NUMBER**

- **S21801**
- **S21802**
- **S21803**
- **S21804**
- **S211001**
- **S211002**

**SPRING MOTOR DIMENSIONS**

- Spring side: 23.00 in.
- Slip ring side: 21.00 in.
- Cable payout: as pictured above, denotes standard rotation.

**NOTE:** Above illustration includes some of the optional accessories described below.

### OPTIONAL ACCESSORIES

- **Vertical Roller Guide**
- **Hoop Guide Assembly**
- **Spoil Lock Assembly**
- **Spring Motors**

If Hoop Guides are used, optional Roller Guides may be found on page 16.
Approximate Net Weight of OPTIONAL ACCESSORIES

- Dia. Line Entrance 1.25
- Pipe Thread
- Slip Ring Side
- Dimensions & Spring Motor

SLIP RING HOUSING DIMENSIONS

Second Series of Digits in Model Number

- "A" Dimension-Inches: 7.5.00 17.50 20.00 22.50 25.00
- "C" Dimension-Inches: 8.50 11.00 13.50 16.00 21.00 29.00

SPRING MOTOR DIMENSIONS CONT

- "B" Dimension in Inches
- "D" Diameter in Inches
- Approximate Net Weight of Reel with Spring Motor(s)

OPTIONAL ACCESSORIES

Vertical Roller Guide
Part No. 012085

If Hoop Guides are used, optional Roller Guides may be found on page 16.

Hoop Guide Assembly
Part No. 012097

Spool Lock Assy.
Part No. 012096

Slop Ring Assembly
Part No. 012092

Adjustment
Part No. 012092

Vertical Down
Part No. 012094

340° Swivel Base
Part No. 012077

Dog and Ratchet
Part No. 012097

4H. Mounting Holes 0.50 Dia.
**Lift/Drage Reels**

**SELECTION CHART**

(See "How to Select Reels" for explanation of Active Travel.)

<table>
<thead>
<tr>
<th>Wire Size (AWG)</th>
<th>No. of Cond.</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>S24-1001-220-12-1</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>S24-1001-220-12-2</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>S24-1001-220-12-3</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>S24-1001-220-12-5</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>S24-1001-220-12-15</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td>14</td>
<td>2</td>
<td>S24-1001-220-14-2</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>S24-1001-220-14-3</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>S24-1001-220-14-4</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>S24-1001-220-14-6</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>S24-1001-220-14-15</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>S24-1001-220-16-2</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>S24-1001-220-16-3</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>S24-1001-220-16-4</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
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<tr>
<td></td>
<td>6</td>
<td>S24-1001-220-16-6</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>S24-1001-220-16-15</td>
<td>116</td>
<td>124</td>
<td>132</td>
<td>140</td>
</tr>
</tbody>
</table>

**NOTE:** Capacities based on speed of 150 ft./min. and acceleration of .50 ft./sec². Capacities based on cable of average weight and diameter. Refer to page 31.

**DIMENSIONS**

**SLIP RING HOUSING DIMENSIONS**

- **"A" Dimension in Inches**
- **"B" Dimension in Inches**
- **"C" Dimension in Inches**

**MODEL NUMBER**

- **S24801**
- **S24803**
- **S24804**
- **S241001**
- **S241002**

**OPTIONAL ACCESSORIES**

- Vertical Roller Guide
- Horizontal Roller Guide
- Slip Ring Guide Assembly
- Dog and Ratchet Assy.
- Spring Motors
- Rotary Limit Switch
- Tension Adjustment Wrench
- 340° Swivel Base

**GEARED DRIVE**

**Ft./min. and acceleration of .50 ft./sec².**

**NOTE:** Above illustration includes some of the optional accessories described below.

**MODEL NUMBER**

- **S24801**
- **S24803**
- **S24804**
- **S241001**
- **S241002**

- **Spring Motor Dimensions**
- **Approximate Net Weight of Reel with Spring Motor(s)**
- **If Hoop Guides are used, optional Roller Guides may be found on page 16.**

- **Cable payout, as pictured above, denotes standard rotation.**

- **NOTE:** Capacities based on cable of average weight and diameter. Refer to page 31.
**Selection INPUT Required**

**TYPE OF APPLICATION**

- **LIFT**
- **STRETCH**
- **RETRIEVE**
- **DRAG**

If none of the above apply to how the reel will be used, or if extra weight is added at the end of the cable (overhang, push-button station, etc.), please consult your factory representative.

**Model Number Explanation**

**SLIP RING AMPACITY CODE**

<table>
<thead>
<tr>
<th>GEARED DRIVE</th>
<th>DIRECT DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REEL TYPE</td>
<td>S</td>
</tr>
<tr>
<td>SERIES</td>
<td>21</td>
</tr>
<tr>
<td>SPRING MOTOR</td>
<td>80</td>
</tr>
<tr>
<td>NO. OF SPRINGS</td>
<td>2 - 12</td>
</tr>
<tr>
<td>NO. OF POLES</td>
<td>3 - 10</td>
</tr>
<tr>
<td>AMPACITY CODE</td>
<td>B - 1</td>
</tr>
</tbody>
</table>

**CONTINUOUS CONTACT**

- **WB**
- **100**
- **60**

**MODEL NUMBER**

<table>
<thead>
<tr>
<th>SLIP RING HOUSING DIMENSIONS</th>
<th>23</th>
<th>24</th>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
<th>29</th>
<th>30</th>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;B&quot; Dimension-inches</td>
<td>16.00</td>
<td>8.50</td>
<td>10.00</td>
<td>9.00</td>
<td>8.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;D&quot; Diameter-inches</td>
<td>21.00</td>
<td>16.00</td>
<td>23.00</td>
<td>28.50</td>
<td>26.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approx. Net Weight-lbs.*</td>
<td>185</td>
<td>215</td>
<td>265</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OPTIONAL ACCESSORIES**

- **Vertical Roller Guide**
- **Hoop Guide Assembly**
- **Spring Lock Assembly**
- **Dog and Ratchet Assy.**
- **Spring Motors**
- **Rotary Limit Switch**
- **Tension Adjustment Wrench**
- **Vertical Down Roller Guide**
- **Dog and Ratchet Assy.**

**HORIZONTAL STRETCH**

STRETCHING cable horizontally requires the greatest amount of tension on any application to maintain a minimum sag. In this catalog, all reel capacities for horizontal stretch applications are based on a sag of 6%.

**VERTICAL LIFT**

VERTICAL LIFT refers to any application where the cable is simply hoisted vertically with only the weight of the cable involved. Special consideration must be given to any weight added to the end of the cable such as a push button station or overhang (i.e. extra cable).

**RETRIEVE**

A HORIZONTAL RETRIEVE application is identified when the reel is mounted on the moving equipment and winds and pays-out cable into tray or other support. A VERTICAL RETRIEVE application is much the same as a vertical lift except; in this case, the reel is located below rather than above the machine.

**DRAG**

In DRAG applications, the reel is stationary. As the machine moves, cable is pulled off of the reel and "dragged" over the surface. Dragging produces wear on the cable and is NOT a recommended application.
How to Select Reels

Gleason Electric Cable Reels are assembled from several components with a great variety of combinations possible. In order to select the CORRECT reel from the selection charts on the following pages, follow STEPS 1-3 on this page.

STEP 1 Identify Your Cable

Cable is the WHAT in reel selection. WHAT is the size (AWG) and number of conductors? Reel calculations are based on the cable weight per foot, Active Travel and cable O.D. Fill in “Selection Input Required” on the facing page for each reel you order.

STEP 2 Identify Your Application

Application is the HOW in reel selection. From the applications on the facing page, choose the one that resembles the way you are handling the cable. Note: Identify any added weight such as extra cable (overhang) or pushbutton stations – Selection charts do NOT consider any added weight.

STEP 3 Select a Reel Model

Applying your input from STEP 1 and STEP 2, the correct reel model number may be found in one of the Selection Charts on the following pages.

For requirements not fully covered in the Selection Charts such as cable sizes, greater Active Travel or greater weight, contact your factory representative. We will be happy to make specific calculations for you.

Definition of terms

- Active Travel = The DISTANCE IN ONE DIRECTION from reel centerline to full extension of cable; the TRAVEL allowed by one full cable extension. See Figures 1 & 2 below.
- Total Travel = The TOTAL DISTANCE real is to service. See Figures 1 & 2 below.
- Payout = The ACTION of cable winding off of the reel, in one or two directions. See Figures 1 & 2 below.
- Cable Length = The total AMOUNT of cable REQUIRED for connections, unwind/wind, SAG (if any) and “extra” lengths you require. See “Cable Length–Don’t Cut Yourself Short” at the back of this catalog.

REMEMBER: Cable Length is NEVER equal to Active Travel or Total Travel!

Fig. 1 ONE-WAY PAYOUT

Fig. 2 TWO-WAY PAYOUT

TOTAL TRAVEL = ACTIVE TRAVEL

TOTAL TRAVEL = ACTIVE TRAVEL x 2

Dimensional Data & Optional Accessories
Dimensional Data & Optional Accessories

**DIMENSIONS**

**SLIP RING HOUSING DIMENSIONS**

<table>
<thead>
<tr>
<th>Second Series of Digits in Model Number</th>
<th>&quot;A&quot; Dimension in Inches</th>
<th>&quot;C&quot; Dimension in Inches</th>
<th>&quot;D&quot; Diameter in Inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>S32801</td>
<td>33</td>
<td>83</td>
<td>220</td>
</tr>
<tr>
<td>S32802</td>
<td>43</td>
<td>93</td>
<td>220</td>
</tr>
<tr>
<td>S32803</td>
<td>67</td>
<td>103</td>
<td>240</td>
</tr>
<tr>
<td>S32804</td>
<td>85</td>
<td>113</td>
<td>240</td>
</tr>
</tbody>
</table>

**MODEL NUMBER**

- **"B" Dimension in Inches**
- **Approximate Net Weight of Reel with Spring Motor(s)**

| S32801 | 200 lbs | 260 lbs | 320 lbs | 380 lbs | 210 lbs | 275 lbs | 340 lbs | 410 lbs |

**SPRING MOTOR DIMENSIONS**

- **Spring Side**
- **Dog and Ratchet Assy.**
- **Hoop Guide Assembly**
- **Slip Ring**
- **Line Entrance 1.50 Pipe Thread**
- **340° Sealed Base**
- **Vertical Roller Guide**
- **Horizontal Roller Guide**
- **Rotary Limit Switch**
- **Tension Adjustment Wrench**
- **Spring Motors**

**OPTIONAL ACCESSORIES**

- **Vertical Roller Guide** Part No. 04045401
- **Hoop Guide Assembly** Part No. 039712
- **Dog and Ratchet Assy.** Part No. 053987
- **Spring Motors**
- **Rotary Limit Switch** Part No. 040454
- **Tension Adjustment Wrench**
- **Vertical Roller Guide** Part No. 040457
- **Horizontal Roller Guide** Part No. 040454
- **340° Sealed Base** Part No. 012077
- **Spool Lock** Part No. 012091
- **Spring Motors**

**NOTE:** Above illustration includes some of the optional accessories described below.

Cable payout, as pictured above, denotes standard rotation.

**SLIP RING HOUSING DIMENSIONS**

**MODEL NUMBER**

- **"B" Dimension in Inches**
- **Approximate Net Weight of Reel with Spring Motor(s)**

- **If Hoop Guides are used, optional Roller Guides may be found on page 16.**

**PROTECTED GEARING...** Gears used for reeling longer lengths of cable are protected from dust and moisture by a sealed housing. External grease fitting permits lubrication of gears during service without opening the enclosure. Various gear ratios are available to match specific reeling requirements.

**NO SWEAT, NO STRAIN GEAR REMOVAL...** Gleason’s unique design permits gears to be changed without disassembly of major frame components. Simply remove the spring motor and its removable back plate to fully expose gears for fast, easy changeover.

**HOOP GUIDES...** Optional feature recommended for two-way payout applications.

**SEALED GEAR HOUSING...** Gear driven models include sealed gear housing.

**SUPERIOR BEARINGS...** All bearings are self-aligning, sealed and pre-lubricated for long and dependable life.
**Spring-Driven**

**ELECTRIC CABLE REELS**

**SAFETYCHANGE® SPRINGS ARE INDUSTRY’S FINEST!**

Gleason uses high-quality spring steel to manufacture these “self-contained” main springs. All springs are lifetime lubricated prior to sealing in disposable Safetychange® housings. When used on multi-spring reels, all springs are connected in parallel so that, in the event that one spring fails, the reel is never without tension. This is a significant safety feature.

**DESIGNED WITH SAFETY IN MIND...**

The Safetychange® spring motor is a power spring sealed in a disposable housing, eliminating the need to handle loose springs. Located outboard on the frame, replacement is safe and easy and does NOT require the reel to be removed from its frame. All Safetychange® spring motors are equipped with an inspection hole to visually check the integrity of the spring while reel is in service.

**FREE-WHEELING HUB FOR SPRING MOTOR...**

Gleason’s unique free-wheeling spring hub design allows for easy cable installation and spring tension adjustment. In addition, it protects the spring motor in the event that the cable is severed.

**SAFE, SIMPLE SPRING TENSION ADJUSTMENT...**

To adjust spring tension, simply remove the inspection cover and adjust with spanner wrench provided. No need to disconnect cable or disassemble reel. The correct number of spring pretension turns is indicated on each reel nameplate.

**DESIGNED WITH SAFETY IN MIND...**

The Safetychange® spring motor is a power spring sealed in a disposable housing, eliminating the need to handle loose springs. Located outboard on the frame, replacement is safe and easy and does NOT require the reel to be removed from its frame. All Safetychange® spring motors are equipped with an inspection hole to visually check the integrity of the spring while reel is in service.

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Gleason WB Reels are continuous contact reels ideal for use in applications where slip ring assemblies are not desired. No slip rings or other sliding contacts are used. Rather, a dual spool and pulley system safely and efficiently pays out and renews the cable.

The absence of electrical contact points on WB Reels make them an outstanding choice for applications involving portable or movable communication or instrumentation equipment. Such equipment could be adversely affected by the varying resistance of sliding electrical contacts or undue twisting of cords or cables resulting in varying impedance. WB Reels are also a smart choice for hazardous locations where electrical parts on the reel would require dust tight or explosion-proof protection.

A roller guide is included as standard equipment. A holding dog for dow shade-type action can be furnished when required.

FIBER OPTIC CABLE of same approximate O.D. as 50 shielded cable listed can be used with Series “WB” reels. Contact your factory representative for details.

WB Reels are selected using the standard process shown in the front of this catalog. Reel models in selection charts based on travel speed of 150 fpm and 4 conductor shielded cable. Stretch reels based on 6% sag. Retrieve reels based on 3 ft lift to center line of reel. Necessary reeling tensions suggest the use of high quality cable for good service life.

FOR CABLE SIZES NOT LISTED, CONSULT YOUR FACTORY REPRESENTATIVE.

MAXIMUM CABLE O.D. = 0.625"

**CONTINUOUS CONTACT WB REELS**

**SIMPLE, POSITIVE SPOOL LOCK...**
Available as an accessory to facilitate cable changing. Permits cable change while reel in under full tension. When released, reel will rewind entire length of new cable.

**RUGGED FRAME BUILT TO LAST...**
All-welded steel frame is fabricated from permanent welding fixtures to assure perfect alignment. A time-honored Gleason design places major operating components outboard of the frame for ready serviceability. Entire unit is painted with baked polyester for a long-lasting, durable finish.

**QUICK, ONE PIECE REMOVAL...** The entire slip ring assembly can be replaced as a unit, if necessary. No need to handle small parts. To remove, simply disconnect wiring and loosen two set screws on the shaft-locking collar.

**EVEN WINDING IN MULTIPLE LAYERS...** Edges of steel flanges on cable spool are die-formed to eliminate cable pileup in corners. Segmenting of inner drum permits adjustability to suit various cable diameters – a slight change in cable size may be accommodated by the same reel with only minor field adjustment.

**WB REEL SELECTION CHARTS**

### Lift Reels

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>18</th>
<th>16</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEET OF ACTIVE TRAVEL</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
</tr>
<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
</tr>
<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-75-25</td>
</tr>
</tbody>
</table>

### Stretch Reels (6% sag)

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>18</th>
<th>16</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEET OF ACTIVE TRAVEL</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-75-25</td>
</tr>
<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-75-25</td>
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<tr>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-60-25</td>
<td>WB-75-25</td>
</tr>
</tbody>
</table>

### Retrieve Reels (3 ft mounting height)

<table>
<thead>
<tr>
<th>WIRE SIZE (AWG)</th>
<th>18</th>
<th>16</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEET OF ACTIVE TRAVEL</td>
<td>30</td>
<td>40</td>
<td>50</td>
</tr>
</tbody>
</table>
SIMPLE, POSITIVE CABLE ENTRANCE... A positive, watertight connector is provided at the shaft where the cable enters the spool area. Cable feeds easily through the hollow shaft for termination within the slip ring enclosure. Connections are required at one point only.

EASILY REMOVABLE SLIP RING ENCLOSURE... Removes quickly for inspection or service by virtue of the three toggle clamps. An "O" ring seal provides a watertight, dust-tight seal suitable for any type of atmosphere.

OPTIONAL ENCLOSURES, designed for hazardous areas (Class I and Class II), are available upon request.

FAST, EASY BRUSH REPLACEMENT... Gleason’s brush holder assembly features a unique spring design which permits quick brush removal while ensuring full contact throughout the life of the brush.

FIBER OPTICS
Any fiber optic cable of the same approximate O.D. as SO shielded cable listed can be used with Series “WB” reels. Contact your local factory representative for details.

Full Range of Accessories
- Three-position Roller Guides
- 3400 Pivot Base
- Spool Lock
- Rotary Limit Switch

See "Dimensional Data" for Details

Available for all standard and most special requirements

This catalog provides details on sizes, capacities, specifications and designs. If you need additional information, contact your local factory representative. Full support is available upon request.

Reels in this catalog are intended for mounting on machinery where automatic (unattended) movement is required. Other Gleason cable reels are available for hand pull applications. Please consult us for recommendations.

Dimensional Data

Fiber Optics
Any fiber optic cable of the same approximate O.D. as SO shielded cable listed can be used with Series ‘WB’ reels. Contact your local factory representative for details.

Available for all standard and most special requirements

This catalog provides details on sizes, capacities, specifications and designs. If you need additional information, contact your local factory representative. Full support is available upon request.

Simple, Positive Cable Entrance... A positive, watertight connector is provided at the shaft where the cable enters the spool area. Cable feeds easily through the hollow shaft for termination within the slip ring enclosure. Connections are required at one point only.

Easily Removable Slip Ring Enclosure... Removes quickly for inspection or service by virtue of the three toggle clamps. An ‘O’ ring seal provides a watertight, dust-tight seal suitable for any type of atmosphere.

Optional Enclosures, designed for hazardous areas (Class I and Class II), are available upon request.

Fast, Easy Brush Replacement... Gleason’s brush holder assembly features a unique spring design which permits quick brush removal while ensuring full contact throughout the life of the brush.

Fiber Optics
Any fiber optic cable of the same approximate O.D. as SO shielded cable listed can be used with Series ‘WB’ reels. Contact your local factory representative for details.

Available for all standard and most special requirements

This catalog provides details on sizes, capacities, specifications and designs. If you need additional information, contact your local factory representative. Full support is available upon request.
Cable Length

Don’t Cut Yourself Short!

CALCULATIONS

FOR ORDERING OR CUTTING

Cable Length = 1 + 2 + 3

1. EXTRA CABLE AT REEL, shown in TABLE 1 or TABLE 2 on the facing page, is REQUIRED for internal connections and one safety wrap. The safety wrap is wound onto the reel.

2. ACTIVE CABLE is the amount of cable you will require to cover the Active Travel distance. THIS CABLE IS WOUND ONTO THE REEL. See “Selecting”.

3. OVERHANG means any extra cable you require beyond Active Travel. THIS CABLE MUST NOT BE WOUND ONTO THE REEL. The reel is not designed to wind or lift the weight of this extra cable.

EXAMPLES

Lift
A reel is needed for lifting 10C #14 cable. Active Travel is 40.0 ft. Lift Selection Chart shows Model No. S16801-103 2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Active Cable is equal to the 40.0 ft. of Active Travel.

3. No overhang is required.

Therefore: 

CUT 45 FT.

NOTE: If reel and cable will be required to lift (support) total weight of any kind, this must be considered. Consult factory.

Stretch
A reel is needed for stretching 10C #14 cable in one direction. Active Travel is 40.0 ft. Stretch Selection Chart shows Model No. S16801-103 2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of the 6% sag, Active Cable is greater than the 40.0 ft. of Active Travel.

Active Cable = 40.0 x 1.01

Active Cable = Active Travel x 1.01

Therefore: 

CUT 49 FT.

NOTE: Gleason S-Reel springs maintain sag at 6%. For greater sag factors, please consult us.

Retrieve
A reel is needed for retrieving 10C #14 cable. Active Travel is 40.0 ft. and reel is mounted 2.5 ft. above the ground (lift height). Retrieve Selection Chart shows Model No. S16801-103 2-1.

1. Refer to Table 1 (right). Plotting a 9 inch diameter drum and slip ring assembly 103 specifies that this reel requires five extra feet of cable at the reel.

2. Because of LIFT HEIGHT, Active Cable is greater than the 40.0 ft. of Active Travel.

Active Cable = 42.5 ft.

Active Cable = Active Travel + 2.5 ft.

Therefore: 

CUT 51 FT.

NOTE: Gleason S-Reels in the selection charts figure in a maximum mounting height of 3.0 ft. If the reel is to be mounted higher than 3.0 ft., consult the factory for recommendations.

NOTE: IF GLEASON SUPPLIES THE CABLE, correct cable length, rounded up to the nearest foot, is automatically calculated based on your input.

REMEMBER: Cable Length is NEVER equal to Active Travel or Total Travel.

NOTE: IF YOU ARE CUTTING YOUR OWN CABLE, please follow our calculation method shown on this page.

REels in this catalog are calculated to handle factors and ONLY. If you have any OVERHANG (factor 3), we will be happy to make specific reel model calculations for you.

ORDERING

To order Gleason Electric Cable Reels, simply contact the Gleason Reel representative in your area.

GLEASON REEL CORP.
Phone: 920-387-4120
Fax: 920-387-4189

CABLE REELS

ELECTRIC

Spring-Driven

Series “S” Spring-Driven Electric Cable Reels

Gleason Series “S” reels are spring-driven electric cable reels designed to be mounted on moving machinery. Electric current flows from your power source to the current consumer through the cable you specify. S-Reels utilize self-contained slip ring assemblies which transfer current to the cable mounted on the rotating spool. Models for longer travels are fitted with gear assemblies to provide hundreds of application possibilities. Specific application details can be found in this catalog or prepared by our staff for your most exacting requirements.

OPTIONAL SLIP RING ENCLOSURES for hazardous area (Class I and Class II), are available on request.

OPTIONAL ACCESSORIES include roller guide, hoop guides (shown installed on reel at right), rotary limit switch, spool lock, ratchet lock assembly (for hand-pull applications only) and swivel base.

Series “WB” Cable Reels without Slip Rings

For applications such as communication where any variation in impedance must be avoided, choose Gleason Series “WB” continuous contact reels which have no slip rings. Because WB-Reels use one continuous length of cable, there is no break from current source to consumer and that means complete preservation of transmission integrity. This transmission integrity makes WB Reels ideal for use with fiber optic cable.

WB reels are actually two reeling systems in one, winding active and inactive cable separately. The inactive cable compensates for the rotation of the active drum as active cable is payed out and rewound.

To order Gleason Electric Cable Reels, simply contact the Gleason Reel representative in your area.
WARRANTY

Gleason warrants for a period of twelve (12) months after date of shipment, all goods manufactured by it to be free from defects in material and workmanship. If, within such warranty period, any such goods are proved, to Gleason’s satisfaction, to be defective, such goods shall be repaired or, at Gleason’s option, replaced f.o.b. Gleason’s factory, without charge. Gleason’s obligations hereunder shall be confined to such repair or replacement and shall be further conditioned upon Gleason’s receiving written notice of any alleged defect within 10 days after its discovery and, at Gleason’s option, the return of the allegedly defective goods to Gleason, f.o.b. its factory. The foregoing warranty shall not apply to goods not manufactured by Gleason, or to goods which shall have been repaired or altered by others than Gleason so as, in Gleason’s judgement, adversely to affect the same, or which shall have been subject to other than normal care, or storage. With respect to goods furnished but not manufactured by Gleason, the warranty obligations of Gleason shall be in all respects conform and be limited to the warranty extended to Gleason by the supplier.

The foregoing warranty is in lieu of all other express or implied warranties (except of title) and of all other obligations of Gleason.
Since 1911, Gleason Reel Corp. has been in the business of CABLE MANAGEMENT. Our products are designed to convey and protect valuable cables and hoses that power and control moving machines of all types. They improve productivity and safety on the job by moving cables and hoses away from hazardous locations on machinery or the shop floor into a controlled environment. Whether you choose Reels for efficient storage and payout from virtually any angle, Festoon Systems for overhead applications or PowerTrak® for protection on machinery in motion, your cables and/or hoses will last longer and provide better service with a cable management system from Gleason Reel Corp... ...The Cable & Hose Management Company!

Cable Management

Gleason Reel Corp.
P.O. Box 26 - 600 South Clark St.
Mayville, Wisconsin 53050-0026
Phone: 920-387-4120
Fax: 920-387-4189

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Bulletin CR-8

HEAVY DUTY Lift, Stretch and Retrieve Reels