Selecting and Installing Steadi-Flex® compensating cable

**SPECIAL CONSIDERATIONS**

Steadi-Flex cable is a wide-loop version of our standard Whisper-Flex compensating cable. Because of its wider natural loop, Steadi-Flex cable can be positioned closer to the car’s centerline. This improves car balance and ride quality for installations with side counterweights and long hang lengths.

**Attachment Points/ Calculating Loop Diameter**

Set the distance between the counterweight and car hitch points to close proximity of the dynamic loop widths listed in Table 1. NOTE: During the selection process, give special consideration to the dynamic (in motion) loop width. Steadi-Flex is NOT a one-for-one replacement for Whisper-Flex. Pit dimension and possible obstructions should be considered when specifying Steadi-Flex.

**Table 1**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Product Code</th>
<th>Dynamic loop width inches • meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-L15-97</td>
<td>SFC 15</td>
<td>46 • 1.17</td>
</tr>
<tr>
<td>18-L20-97</td>
<td>SFC 20</td>
<td>47 • 1.20</td>
</tr>
<tr>
<td>18-L25-97</td>
<td>SFC 25</td>
<td>48 • 1.22</td>
</tr>
<tr>
<td>18-L30-97</td>
<td>SFC 30</td>
<td>49 • 1.25</td>
</tr>
<tr>
<td>18-L35-97</td>
<td>SFC 35</td>
<td>50 • 1.27</td>
</tr>
<tr>
<td>18-L40-97</td>
<td>SFC 40</td>
<td>50 • 1.27</td>
</tr>
</tbody>
</table>

Loop widths will be up to 10” • 254 mm smaller when car is stationary

**Selection of Support Hardware**

Support brackets, U-bolts, S-hooks and heavy duty couplings specifically designed for Steadi-Flex cable must be used to ensure safe installations. A typical installation with a JCC kit looks like this at the car:

**Figure 1**

Use the installation kits in Table 2 with Steadi-Flex cables:

**Table 2**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>For use on these cables</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCC-20-CHN</td>
<td>SFC 15 and 20</td>
</tr>
<tr>
<td>JCC-30-CHN</td>
<td>SFC 25 and 30</td>
</tr>
<tr>
<td>JCC-40-CHN</td>
<td>SFC 35 and 40</td>
</tr>
</tbody>
</table>

**Selection and Placement of Damping Devices**

The WF-RDD4 Super Swayless damping device (shown in Figure 2 installed on a floor-mounted bracket SSL-FMB-48) is designed for use with Whisper-Flex and Steadi-Flex compensating cables. Use two devices to maintain smooth compensating cable operation for car speeds of up to 700 feet/min • 3.56 m/sec.

We recommend using the WF-RDD4 (shown right) with free-turning polyurethane rollers to contain and dampen any oscillation or cable sway that may be generated by cable motion at higher speeds.

Position the damping devices directly below the car and counterweight hitch points in accordance with the appropriate dynamic spacing.

**Figure 2**

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Draka Elevator
2151 N. Church Street | Rocky Mount, NC 27804 | 1-877-DRAKA EP (877-372-5237) | +1-252-984-5100 | Fax +1-252-972-6001
Technical information 1-877-408-4357 | www.prysmiangroup.com
Mount them three feet from the base of the loop to insure the cable travels vertically as it passes through the rollers (Figure 3). Mounting brackets can be seen in the Wire Rope and Compensation section of the Draka catalog.

When the car is stationary, the cable will drape on the inside rollers as shown in Figure 4. As the car accelerates, the loop will expand to match the dimension listed in Table 1.

**Shallow pit considerations**

The damping devices must be mounted above the cable’s loop curvature so that the cable is vertical as it passes through the rollers. At a minimum, the damping device must be mounted above the pit floor by a distance equal to a floor clearance of 6 inches plus one half of the dynamic loop width.

If the compressed buffer height on an installation does not allow adequate space to follow these criteria, the ShallowSwayless damping device (WFDD-50L) should be specified.

A follow-up inspection (1 - 2 weeks after installation) is recommended to ensure proper placement of the damping devices. Adjustments should be made as needed to minimize contact between the cable and rollers while the elevator is in operation.

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**Figure 3**

Exaggerated for clarity

Cable should be vertical while in motion

Damper minimum height

Loop diameter depends on application and cable size

6 in • 150 mm

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**Figure 4**

Exaggerated for clarity

Cable should be vertical while in motion

Cable may touch rollers at rest, but should expand to centers of rollers when in motion