Choosing a horizontal lifeline system

It’s critical to choose a system that has been precision engineered and rigorously tested to meet OSHA requirements. Some other important considerations include:

Anchorage structure

The I-beam, rebar stud, concrete column or roof you attach your system to can dictate the type of system required.

Portable or permanent

Temporary jobs require portable systems that can be moved efficiently from one location to another. For hazardous areas that need to be accessed often, a permanent solution may be a better choice.

Lifeline type

Synthetic lines are lightweight and compact, while galvanized or stainless steel offer enhanced corrosion and abrasion resistance.

Number of users

Consider the number of workers required and choose a system that can accommodate them safely.

Clearance requirements

The distance between the work area and the next level or obstruction below is called “fall clearance.” Anchorage height, type of lifeline and length are some of the factors that will affect the required clearance needed.

3M™ DBI-SALA® Horizontal Systems
These systems incorporate a modular, multi-base design that accommodates a wide range of steel and concrete beams.

- Interchangeable stanchions—great for steel and concrete applications.
- Lightweight and portable.
- Fast and easy setup and use.
- Single and multi-span options available.
- Pass-through bracket provides 100% tie-off capability.
- Integrated 3M™ DBI-SALA® Zorbit™ Energy Absorber limits forces on structure.

### Steel I-Beam Applications
- Single clamp and wing nut design.
- Adjustments made from top of beam.
- Fits flanges 6 in.-12 in. wide, 2-1/4 in. thick.
- Optional bases for 18 in., 24 in. and 36 in. widths.

### Concrete rebar & shear stud applications
- Simply attach with torque wrench.
- Simple chain tie-back connection.
- Fits 1/2 in.-1 in. diameter (#4-#8 rebar) and 4 in.-12 in. center to center.

---

**Selection guide:**

<table>
<thead>
<tr>
<th></th>
<th>20 ft.</th>
<th>30 ft.</th>
<th>40 ft.</th>
<th>50 ft.</th>
<th>60 ft.</th>
<th>Stanchion</th>
<th>Tie-Back Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-Beam</td>
<td>7400420</td>
<td>7400430</td>
<td>7400440</td>
<td>7400450</td>
<td>7400460</td>
<td>7400047</td>
<td></td>
</tr>
<tr>
<td>Rebar/Shear Stud</td>
<td>7400620</td>
<td>7400630</td>
<td>7400640</td>
<td>7400650</td>
<td>7400660</td>
<td>7400215</td>
<td>7400214</td>
</tr>
</tbody>
</table>

Systems shown with intermediate stanchion—sold separately.

---

**3M™ DBI-SALA® SecuraSpan™ Loop Rebar Horizontal Lifeline Systems**

These easy-to-install complete single-span systems include two stanchions and cable assembly with tensioner and Zorbit™ Energy Absorber.

**Selection guide:**

<table>
<thead>
<tr>
<th></th>
<th>20 ft.</th>
<th>30 ft.</th>
<th>40 ft.</th>
<th>50 ft.</th>
<th>60 ft.</th>
<th>Stanchion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7400320</td>
<td>7400330</td>
<td>7400340</td>
<td>7400350</td>
<td>7400360</td>
<td>7400045</td>
</tr>
</tbody>
</table>

System shown with intermediate stanchion—sold separately.
3M™ DBI-SALA® SecuraSpan™ I-Beam System Components

**7400087**
Perpendicular I-Beam System Components
Stanchion with Perpendicular I-Beam Base
No tie back, fits 8 in.-14 in. flange.

**7400086**
Perpendicular I-Beam Base Only
Fits 8 in.-14 in. flange.

**7400089**
Perpendicular Pass-Through Kit

**Selection guide:**

<table>
<thead>
<tr>
<th>Stanchion with I-Beam Base</th>
<th>6 in.-12 in. Flange</th>
<th>12 in.-18 in. Flange</th>
<th>18 in.-24 in. Flange</th>
<th>24 in.-36 in. Flange</th>
</tr>
</thead>
<tbody>
<tr>
<td>7400047</td>
<td>7400057</td>
<td>7400066</td>
<td>7400056</td>
<td>7400057</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I-Beam Base Only</th>
<th>6 in.-12 in. Flange</th>
<th>12 in.-18 in. Flange</th>
<th>18 in.-24 in. Flange</th>
<th>24 in.-36 in. Flange</th>
</tr>
</thead>
<tbody>
<tr>
<td>7400052</td>
<td>7400065</td>
<td>7400066</td>
<td>6700067</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stanchion with I-Beam Base for 3-3/8 in. Thick Flange</th>
<th>Fits up to 3-3/8 in. thick, 6 in.-12 in. wide</th>
<th>Fits up to 3-3/8 in. thick, 12 in.-18 in. wide</th>
<th>Fits up to 3-3/8 in. thick, 18 in.-24 in. wide</th>
<th>Fits up to 3-3/8 in. thick, 24 in.-36 in. wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>7400015</td>
<td>7400032</td>
<td>7400033</td>
<td>7400034</td>
<td></td>
</tr>
</tbody>
</table>

Lifeline options for all systems—cable assembly with turnbuckle and Zorbit™ Energy Absorber are available in 10 ft. increments. Cable assemblies over 60 ft. include two Zorbit™ Energy Absorbers.

---

3M™ DBI-SALA® SecuraSpan™ Rebar System Components

**7400215**
Stanchion with Rebar/Shear Stud Base
Pass-through and end anchor brackets.

**7400054**
Intermediate Retro-Fit Kit
With rebar/shear stud base and pass-through bracket.

**7400053**
End-Anchor Retro-Fit Kit
With rebar/shear stud base, tie-back assembly, end-anchor and pass-through bracket.

**7400214**
Tie-Back Base and Chain Assembly

---

3M™ DBI-SALA® SecuraSpan™ Loop System Components

**7400045**
Stanchion with Loop Rebar Base and Pass-Through Bracket
3M™ DBI-SALA® EZ-Line™ Retractable Horizontal Lifeline (HLL) System

This is a lightweight, easy-to-use lifeline system that you can install, remove and store quickly.
- Built-in winch.
- Customizable in any length up to 60 ft.
- Built-in pre-tension and impact indicators.
- Two worker capacity.

7600002
Replacement EZ-Line Handle Assembly
See product instruction manual for complete clearance information.

3M™ DBI-SALA® Sayfline™ Cable Horizontal Lifeline (HLL) Systems

These systems are highly portable and can be used for situations where welding, sparks or harsh environments are present, or where minimum clearance exists.
- Includes cable lifeline assembly with wedge grip termination, tensioner and 3M™ DBI-SALA® Zorbit™ Shock Absorber.
- Durable all-metal system can be left in place for long periods.
- Easy to relocate at next location or site.
- Use with any 5,000 lb. anchorage device.
- Two worker capacity.

Selection guide:

<table>
<thead>
<tr>
<th>Length</th>
<th>20 ft.</th>
<th>30 ft.</th>
<th>40 ft.</th>
<th>50 ft.</th>
<th>60 ft.</th>
<th>70 ft.</th>
<th>80 ft.</th>
<th>90 ft.</th>
<th>100 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7602020</td>
<td>7602030</td>
<td>7602040</td>
<td>7602050</td>
<td>7602060</td>
<td>7602070</td>
<td>7602080</td>
<td>7602090</td>
<td>7602100</td>
<td></td>
</tr>
</tbody>
</table>

Most popular length

See product instruction manual for complete clearance information.
3M™ DBI-SALA® Sayfline™ Synthetic Horizontal Lifeline Systems

Lightweight, easy-to-install and portable systems that can be used for maintenance, bridge work, construction and general industry applications.

- Installs without special tools or equipment.
- Easy to relocate to next location or site.
- Kernmantle rope lifeline with tensioner and shock absorber.
- Capacity of two workers.

Selection guide:

<table>
<thead>
<tr>
<th>Length</th>
<th>20 ft.</th>
<th>30 ft.</th>
<th>40 ft.</th>
<th>50 ft.</th>
<th>60 ft.</th>
<th>70 ft.</th>
<th>80 ft.</th>
<th>90 ft.</th>
<th>100 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7600502</td>
<td>7600503</td>
<td>7600504</td>
<td>7600505</td>
<td>7600506</td>
<td>7600507</td>
<td>7600508</td>
<td>7600509</td>
<td>7600510</td>
</tr>
</tbody>
</table>

See product instruction manual for complete clearance information.

3M™ DBI-SALA® SecuraSpan™ Pour-in-Place Horizontal Lifeline Systems

These lightweight and portable systems install to column tops, providing an overhead tie-off point during the decking process. Complete system includes two stanchions (7400203), and cable assembly with tensioner and 3M™ DBI-SALA® Zorbit™ Energy Absorber.

- Fast and easy setup and use.
- Single and multi-span options with unlimited length.
- Pass-through design provides protection for up to two workers.

Selection guide:

<table>
<thead>
<tr>
<th>Length</th>
<th>20 ft.</th>
<th>30 ft.</th>
<th>40 ft.</th>
<th>50 ft.</th>
<th>60 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7400220</td>
<td>7400230</td>
<td>7400240</td>
<td>7400250</td>
<td>7400260</td>
</tr>
</tbody>
</table>

See product instruction manual for complete clearance information.
3M™ DBI-SALA® SecuraSpan™ Pour-in-Place Accessories

7400203
Stanchion Assembly
7 ft. 6 in. tall.

7400200
Intermediate Bracket
Allows system to be configured into multi-span type

7400201
Concrete Sleeve
For pour-in-place post horizontal lifeline systems.

7400211
Clamp-On Vertical Base
Clamps to existing vertical steel and concrete structures, zinc-plated steel construction.

7400218
Bolt-On Vertical Base
Bolts to vertical steel and concrete structures, zinc-plated steel construction.

7400222
Weld-On Vertical Base
Welds to vertical steel structures, steel C-channel construction.

8530267
Bolt-On Floor Base
Bolts to steel and concrete horizontal surfaces, zinc-plated steel construction.

3M™ DBI-SALA® Horizontal Lifeline Components

3M™ DBI-SALA® Zorbit™ Energy Absorber Kits

- Allows use of standard 5,000 lb. rated anchors.
- Lightweight, compact and easy to set up and use.
- Simple design makes integration easy.

Accessory products:
1. Cable clips - 9501563
2. O-rings - 9503880
3. Thimbles - 9506596
4. Turnbuckle - 7002050
5. Wedge Grip Horizontal Lifeline Termination Device - 7608008
6. Zorbit™ Energy Absorber - 7401013

Selection guide:

<table>
<thead>
<tr>
<th>7401013</th>
<th>7401031</th>
<th>7401032</th>
<th>7401033</th>
<th>7600580</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zorbit™ Energy Absorber only</td>
<td>Zorbit™ Energy Absorber with 2 shackles, bolts, nuts</td>
<td>Zorbit™ Energy Absorber with 2 shackles, bolts, nuts, turnbuckle</td>
<td>Zorbit™ Energy Absorber with 3 shackles, bolts, nuts, turnbuckle, thimbles, cable clips</td>
<td>Zorbit™ Energy Absorber with 3 shackles, bolts, nuts, turnbuckle, thimbles, cable clips with wedge grip, 2 O-rings</td>
</tr>
</tbody>
</table>
3M™ DBI-SALA® Horizontal Lifelines

These horizontal lifeline systems aren’t just easy to use—they’re easy to install with the support of our network of certified installers. Call customer service for more information.

- Pre-engineered or customized.
- Provides continuous fall protection.
- Shouldn’t conflict with other building safety systems.

See page 35 for more information on 3M™ DBI-SALA® Engineered Systems.

Comparison guide:

<table>
<thead>
<tr>
<th></th>
<th>EZ-Line™</th>
<th>Sayfline™ Synthetic</th>
<th>Sayfline™ Cable</th>
<th>Multi-Span</th>
<th>SecuraSpan™</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Length</td>
<td>60 ft.</td>
<td>100 ft.</td>
<td>100 ft.</td>
<td>180 ft.</td>
<td>600+ ft.</td>
</tr>
<tr>
<td>Maximum Span Length</td>
<td>60 ft.</td>
<td>100 ft.</td>
<td>100 ft.</td>
<td>30 ft.</td>
<td>60 ft. w/ stanchions, 100 ft.</td>
</tr>
<tr>
<td>Minimum Anchorage</td>
<td>5,000 lbs.</td>
<td>3,600 lbs.</td>
<td>5,000 lbs.</td>
<td>5,000 lbs.</td>
<td>5,000 lbs.</td>
</tr>
<tr>
<td>Strength</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-spans Allowed</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maximum Number of Spans</td>
<td>Many</td>
<td>100 ft.</td>
<td>1</td>
<td>12</td>
<td>Many</td>
</tr>
<tr>
<td>Maximum Users on System</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Maximum Users on Span</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>420 lb. Capacity</td>
<td>Yes, derate system to single person per span.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Absorber</td>
<td>Brake and reserve line Zorbit™ used on multi-span setups</td>
<td>In-line energy Shock Pack</td>
<td>1 Zorbit™ for 60 ft. span or less, 2 Zorbit™ are required for more than 60 ft.</td>
<td>1 Zorbit™ for 30 ft. single span, 2 Zorbit™ for multiple spans</td>
<td>1 Zorbit™ for up to 60 ft. single span, use second Zorbit™ for multiple spans</td>
</tr>
<tr>
<td>Fall Clearance Saved</td>
<td>2 ft.</td>
<td>7 ft. 2 in.</td>
<td>3 ft. 11 in.</td>
<td>1 ft. 4 in. for 10 ft.-30 ft. span</td>
<td>3 ft. 11 in.</td>
</tr>
<tr>
<td>(When changing from 60 ft. span to 30 ft. span)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of Slope Allowed</td>
<td>15 degrees</td>
<td>5 degrees</td>
<td>5 degrees</td>
<td>5 degrees</td>
<td>5 degrees</td>
</tr>
<tr>
<td>System Must Limit Average “Arresting Forces To”</td>
<td>900 lbs. or less</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper Tensioning of Cable</td>
<td>Unit handle will &quot;click&quot; at correct tension</td>
<td>Turn tensioning nut until tensioner slips, 350-450 lbs. of tension</td>
<td>Turn turnbuckle until tension gauge reads “OK,” 6 in. or less sag in wire w/o any weight</td>
<td>Turn turnbuckle until 2 in. or less sag in wire at mid-point w/o any weight</td>
<td>Turn turnbuckle until 6 in. or less sag in wire w/o any weight</td>
</tr>
<tr>
<td>Inspection</td>
<td>User should inspect before each use. Annual inspection by competent person. Qualified person should be involved with installation and use per OSHA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3M™ DBI-SALA® Sayfline™ Multi-Span Horizontal Lifeline Systems

Sayfline™ Horizontal Systems are designed for “off-the-shelf” user installation. Custom sizes are available, call customer service for more information.

- Completely customizable, including span length, total system length and even final installation position.
- Provides 100% continuous fall protection for two workers when they are properly attached to the appropriate lifeline.
- One-piece sleeve bypasses intermediates and freely moves with you.
- System includes lifeline, intermediate bracket (one per 30 ft. span), termination hardware, tensioner and two Zorbit™ Energy Absorbers.

Selection guide:

<table>
<thead>
<tr>
<th></th>
<th>20 ft.</th>
<th>40 ft.</th>
<th>60 ft.</th>
<th>80 ft.</th>
<th>100 ft.</th>
<th>120 ft.</th>
<th>140 ft.</th>
<th>160 ft.</th>
<th>180 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanized</td>
<td>7603020</td>
<td>7603040</td>
<td>7603060</td>
<td>7603080</td>
<td>7603100</td>
<td>7603120</td>
<td>7603140</td>
<td>7603160</td>
<td>7603180</td>
</tr>
<tr>
<td>Stainless Steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sayflink sleeve sold separately.

Sayflink™ Accessories

7608001 Intermediate Bracket
For multi-span systems.

7608002 Sayflink™ Sleeve
For Sayfline™ Multi-Span Horizontal Lifeline system.