Sling fittings and special features

Most sling requirements are covered when ordered by type (style) and measurements. Special applications may require the order to order specific fittings or configurations, and/or to require wear pads.

PEAR LINK, Forged Steel. Heat Treated Shackles. Used on Basket or Vertical Hitch applications. Used as an end on Type 1 Slings. Sewn Forged Alloy Steel or Aluminum.

*Disintegrated by concentrated sulfuric acid. **

OK            OK         Weak Alkalis
OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
OK            OK         Ketones
OK            OK         Hydrocarbons
OK            OK         Halogenated Hydrocarbons
OK            OK         Dry Cleaning Solvents
OK            No         Bleaching Agents
No            OK         Strong Alkalis
No            OK         Aldehydes
OK            OK         Alcohol
No            No         Acid

SAMSSEL

INSPECT SLING FOR DAMAGE BEFORE EACH USE. DO NOT USE NEAR ACIDS, BLEACHING AGENTS OR CAUSTICS. DO NOT CUT, OVERLOAD OR EXPOSE TO TEMP ABOVE 200˚ F.

OK            OK         Weak Alkalis
OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
OK            OK         Ketones
OK            OK         Hydrocarbons
OK            OK         Halogenated Hydrocarbons
OK            OK         Dry Cleaning Solvents
OK            No         Bleaching Agents
No            OK         Strong Alkalis
No            OK         Aldehydes
OK            OK         Alcohol
No            No         Acid

OK            OK         Weak Alkalis
OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
OK            OK         Ketones
OK            OK         Hydrocarbons
OK            OK         Halogenated Hydrocarbons
OK            OK         Dry Cleaning Solvents
OK            No         Bleaching Agents
No            OK         Strong Alkalis
No            OK         Aldehydes
OK            OK         Alcohol
No            No         Acid

OK            OK         Weak Alkalis
OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
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OK            OK         Hydrocarbons
OK            OK         Halogenated Hydrocarbons
OK            OK         Dry Cleaning Solvents
OK            No         Bleaching Agents
No            OK         Strong Alkalis
No            OK         Aldehydes
OK            OK         Alcohol
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OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
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OK            OK         Alcohol
No            No         Acid

SAFETY CAUTIONS

Nylon: Tested and proven
Nylon normally is unaffected by grease & oil and has a high resistance to abrasives, strong alkalis and others. These slings should never be exposed to temperatures over 200˚ F.

REGARD SLING WHEN RED WEARING THREADS SHOW AT SURFACE OF SLING.
Nylon slings are manufactured with a banding of red warning threads woven into the inner load bearing layer, which will become exposed as the protective outer layer becomes damaged or worn away. This serves as a visible warning, simplifying inspection, showing where a sling needs replacement. A Sling should be inspected for indications of wear or abuse, physical or chemical, before each use!

WEAR PADS
Often special wear pads are designed to protect or reinforce slings. These should be noted as additional information and requirements when ordering slings. Carefully describe type of pads needed and include sketches of any unique requirements.

REGULAR PADS - Sewn to length of wear points.
EDGEGUARD PADS - Sewn along edges of sling body.
SLEEVES PADS - Protect both sides of sling body and are movable along length. Sling stretches within pad as load is lifted.

STANDARD PADDING FABRIC - Chrome Leather or Webbing
PAD, SPECIAL MATERIAL - Chrome Leather or Webbing the same as the Sling Body.

SAFETY CAUTIONS

1. KEEP I.D. TO SLING. Ends of I.D. should be about 50% greater than diameter of Eyebolt.
2. AVOID/AVOID WEAR WARNING THREADS SHOW AT SURFACE OF SLING.
3. AVOID USE OF SLINGS OVER 50% OF ITS WORKING LOAD LIMIT.
5. SUSPEND LOAD HANG HEAD UP TO SHORTEN.
6. NEVER KNOT PAD TO SLING.

DISCARD SLING WHEN RED WEAR WARNING THREADS SHOW AT SURFACE OF SLING.

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5. SUSPEND LOAD HANG HEAD UP TO SHORTEN.
6. NEVER KNOT PAD TO SLING.

DISCARD SLING WHEN RED WEAR WARNING THREADS SHOW AT SURFACE OF SLING.

CAUTION: Avoid these unsafe practices

AVOID SHARP CLIPS, Hooks or Ears, etc. Lifting Damage
AVOID SHARP EDGES, Corners Damage
AVOID ALKALI, Acid, Oxidizing Agents, Ethers, Ethers, Halogenated Hydrocarbons, Acids, Amines
CAUTION: Avoid these unsafe practices
### SLING RATED CAPACITIES (IN POUNDS)

<table>
<thead>
<tr>
<th>Type</th>
<th>Width (in)</th>
<th>Vertical</th>
<th>Choker</th>
<th>Basket</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYP 1</td>
<td>12&quot;</td>
<td>53760</td>
<td>43008</td>
<td>107520</td>
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<tr>
<td>TYP 2</td>
<td>10&quot;</td>
<td>48000</td>
<td>38400</td>
<td>96000</td>
</tr>
<tr>
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<td>40960</td>
<td>32768</td>
<td>81920</td>
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<td>6&quot;</td>
<td>32640</td>
<td>26112</td>
<td>65280</td>
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<tr>
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<td>4&quot;</td>
<td>23040</td>
<td>18432</td>
<td>46080</td>
</tr>
<tr>
<td>TYP 6</td>
<td>2&quot;</td>
<td>12800</td>
<td>10240</td>
<td>25600</td>
</tr>
<tr>
<td>TYP 7</td>
<td>1&quot;</td>
<td>6400</td>
<td>5120</td>
<td>12800</td>
</tr>
</tbody>
</table>

### SLING LOAD RATINGS

Sling load stress increases with the angle of strain. Please refer to the chart to determine the stress imposed on each leg when the load is lifted by one hook rather than two. See the stress imposed on each leg increase as the angle of the hook changes. This diagram illustrates the danger and the potential for MISUSING A SLING certified to lift 1,000 lb. safety in a basket hitch.

### ORDERING INFORMATION

**To order:**

- Show the type of sling as identified in this literature.
- Describe end fittings if special or a choice is indicated.
- Describe wear pads and placement.
- Show the type of sling as identified in this literature.
- Show webbing material (nylon or other).
- Show the width and length needed - measured as shown below.
- Show quantity needed.

**ORDERING INFORMATION**

- **QUANTITY**
- **WIDTH**
- **LENGTH**
- **WEBBING MATERIAL**
- **TYPE SLING**
- **ADDITIONAL INFORMATION - IF REQUIRED**

**CAUTION:**

- Single ply made from other webbing. If the ratings are not familiar to you - call us. Our representatives will be glad to assist you.

**Sling stress (Lbs.)**

<table>
<thead>
<tr>
<th>Sling Angle</th>
<th>Sling Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>30°</td>
<td>518 LBS.</td>
</tr>
<tr>
<td>60°</td>
<td>577 LBS.</td>
</tr>
</tbody>
</table>

**SHOWING SLING STRESSES AT VARIOUS ANGLES**

Due to sling angle INCREASE STRESS

- 90°: 1,000 LB. LOAD
- 120°: 1,000 LB. LOAD

**SLING LOAD RATINGS**

<table>
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</tr>
</tbody>
</table>

**SHOWING SLING STRESSES AT VARIOUS ANGLES**

When considering sling strength rating necessary for a given load it is necessary to realize the strain on the leg of a sling will increase proportionately as shown on the chart. To figure the sling strength necessary:

1. Divide the load weight by the number of sling legs being used, which gives the load per leg.
2. Rig a sling with a greater capacity per leg than indicated for vertical. Measure the angle formed.
3. Check with the chart and multiply the load per leg by the percentage factor indicated to be sure the actual load per leg is not over the actual sling rating.
To avoid confusion
We show the most popular slings. We manufacture slings made from other materials. If the ratings are not familiar to you - call us. Our representatives will be glad to assist you.

### SLING LOAD RATINGS

Sling load stress increases with the angle of strain
Please notice the change on each leg when the load is lifted by one hook rather than two. See the stress imposed on each leg increase as the angle of the hook changes. This diagram illustrates the danger and the potential for MISUSING A SLING certified to lift 1,000 lb. safely in a basket hitch.

**SLING RATED CAPACITIES (IN POUNDS)**

**Sling load stress at various angles - all angles measured from vertical (1,000 lb. load)**

When considering sling strength rating necessary for a given load it is necessary to realize the strain on the leg of a sling will increase proportionately as shown on the chart. To figure the sling strength necessary:

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2. Rig a sling (with a greater capacity per leg than indicated for vertical). Measure the angle formed.
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<table>
<thead>
<tr>
<th>Width</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
<th>10&quot;</th>
<th>12&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot;</td>
<td>3200</td>
<td>4048</td>
<td>6144</td>
<td>7728</td>
<td>9888</td>
<td>12288</td>
</tr>
<tr>
<td>15&quot;</td>
<td>4800</td>
<td>6400</td>
<td>10240</td>
<td>12800</td>
<td>15360</td>
<td>19200</td>
</tr>
<tr>
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<td>6400</td>
<td>8000</td>
<td>12800</td>
<td>16000</td>
<td>20480</td>
<td>25600</td>
</tr>
</tbody>
</table>

### ORDERING INFORMATION

**Essential information for ordering Samsel nylon slings**

- To order:
  - Samsel Supply Company
  - 1200 Old River Road
  - Cleveland, Ohio 44113
  - Telephone 216.361.1033
  - Fax 216.361.2349
  - 866 toll-free 866.852.6191
  - National toll-free 866.852.6192

**SLINGS RATED CAPACITIES**

**EXAMPLE:**

- For 3" x 60" x 1000# Sling Load Rating:
  - Single Ply:
    - Vertical: 22,000#,
    - Choker: 15,360,
    - Basket: 7,680.
  - Double Ply:
    - Vertical: 44,000#,
    - Choker: 30,720,
    - Basket: 15,360.

**CAUTION:**

- Have you load-rated the sling conservatively? See sling load chart to be sure.

**WARNING:**

- You must have the sling等级 certification. If the ratings are not familiar to you - call us. Our representatives will be glad to assist you.

**WARNING:**

- You must calculate the load per leg by the number of sling legs being used, which gives the load per leg.

**WARNING:**

- Rig a sling (with a greater capacity per leg than indicated for vertical). Measure the angle formed.

**WARNING:**

- Check with the chart and multiply the load per leg by the percentage factor indicated to be sure the actual load per leg is not over the actual rating.

**WARNING:**

- Please notice the change on each leg when the load is lifted by one hook rather than two. See the stress imposed on each leg increase as the angle of the hook changes. This diagram illustrates the danger and the potential for MISUSING A SLING certified to lift 1,000 lb. safely in a basket hitch.

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Sling fittings and special features

Forged Alloy Steel or Aluminum. Used on Basket or Vertical Hitch applications. Used on Type 2 and as one end on Type 1 Slings. Pear Link, Forged Steel.

*Degraded by strong alkalis at elevated temperatures.
**Disintegrated by concentrated sulfuric acid.

POLYESTER       NYLON                        LIQUIDS
OK            OK         Weak Alkalis
OK            OK         Water, Seawater
OK            OK         Soaps, Detergents
OK            OK         Oil, Lubricating
OK            OK         Oil, Crude
OK            OK         Hydrocarbons
OK            OK         Halogenated Hydrocarbons
No            OK         Ethers
OK            OK         Dry Cleaning Solvents
No            OK         Strong Alkalis
No            OK         Aldehydes
OK            OK         Alcohol
No            No         Acid

SAMSEL

YARNS APPEAR. REFER TO MANUFACTURERS CATALOG FOR ADD'L CHEMICAL EXPOSURE AND SAFE USE INSTRUCTIONS.

INSPECT SLING FOR DAMAGE BEFORE EACH USE. DO NOT USE NEAR ACIDS, BLEACHING AGENTS OR CAUSTICS. DO NOT CUT, OVERLOAD OR EXPOSE TO TEMP ABOVE 180˚ F.

EDGEGUARD PADS
REGULAR PADS
PADS, SPECIAL MATERIAL

REGULAR PAD - Sewn to along edges of sling body.
EDGEGUARD PAD - Sewn along edges of sling body.

REGULAR PAD - Protect both sides of sling body and are moveable along length. Sling stretches within pad as load is lifted.
EDGEGUARD PAD - Protects side edges of sling body.

SLEEVE PADS - Protect both sides of sling body and are moveable along length. Sling stretches within pad as load is lifted.

MATING TRIANGLE
FORGED TRIANGLE
REVERSED EYE
TWIST EYE
FLAT EYE
HOOK

SPECIAL FEATURES

Sling fittings and special features

Most sling requirements are covered when ordered by type (style) and measurements. Special applications may require it necessary to order specific fittings or configurations, and/or to require wear pads.

SAMSEL Sling

Labels are designed to be always legible.

To assure legibility, our tough vinyl labels are branded with all necessary specifications and then protected with a clear-coated vinyl, eliminating the chance of OSHA rejection. The label’s yellow color and bold black type make lifting capabilities and sling limitations easy to read.

LOOK FOR THE SAMSEL NAME for a tough, high-quality, dependable sling.

SAFETY CAUTIONS

Nylon: Tested and proven

Nylon normally is unaffected by grease & oil and has a high resistance to abrasion, strong alkalis and others. These slings should never be subjected to temperatures over 200˚ F.

EDGEGUARD SLING WHEN RED WARNING THREADS SHOW AT SURFACE OF SLING:

Nylon slings are manufactured with a visible red wear warning layer which will become exposed as the protective outer layer becomes damaged or worn away. This serves as a visible warning, simplifying inspection, showing where a sling needs replacement.

A Sling should be inspected for indications of wear or abuse, physical or chemical, before each use!

REGULAR PADS - Sewn to
EDGEGUARD PADS - Sewn along edges of sling body.

+400° F Ambient
Never Over
Cordura Nylon

Avoid direct exposure to UV Rays
Over 50%
Useful Strength
To Shorten.
Never Knot
Avoid

Bedrock
Goal Against
Damage
Avoid

Avoid

Avoid Heat
Nylon Can Melt
Temperature.

nylon

Chemical
Application
Compatibility

Investigate
Application
Compatibility

Apply
Against
Damage
Avoid

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