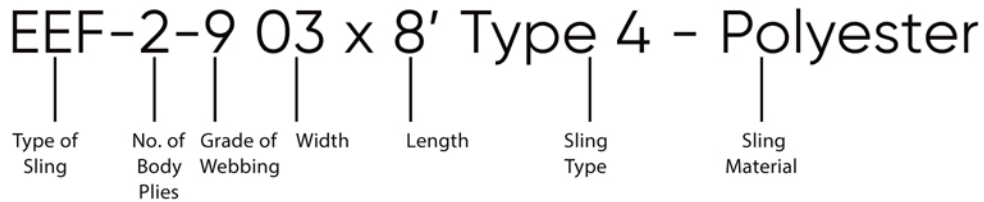


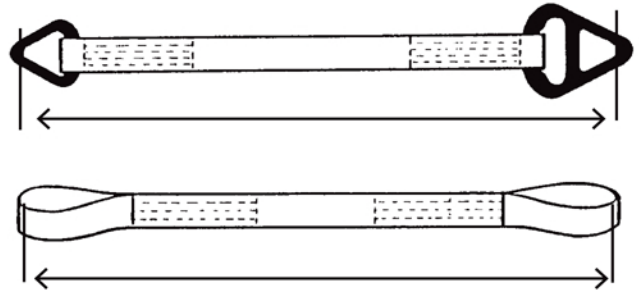
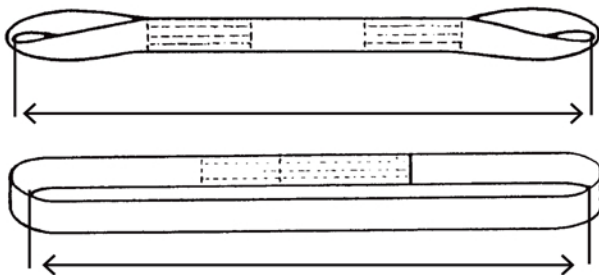
# MAKING SLING BUYING EASY: HOW TO ORDER

## UNDERSTANDING PART NUMBERS



## MEASURING LENGTH OF SLING

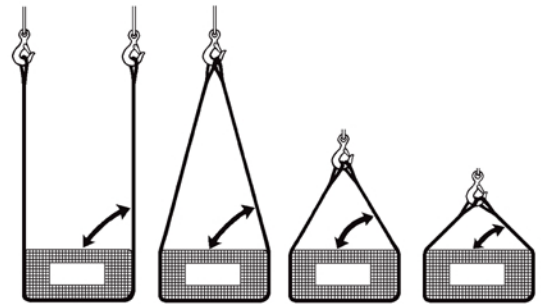
To calculate the correct length of the sling, measure pull to pull when flat.



## CALCULATING SLING'S RATED CAPACITY

We use the following guidelines for calculating a sling's rated capacity:

1. **Web tensile strength:** This factor is the foundation for the calculation. Every webbing material is made with a specified nominal strength, measured in pounds per inch of width, in two basic grades. The webbing manufacturer is required to meet or exceed these nominal strengths with written proof. Any variation must exceed these ratings. This nominal strength of the webbing is used to calculate the sling's rated capacity.
2. **Fabrication factor:** This compensates for the reduction in webbing strength that occurs due to stitching and tapering. The greater the stitching, the more the reduction in webbing strength. Two-ply slings, for example, require more stitching than one-ply slings, thereby increasing the fabrication factor for the two-ply sling. Another factor is applied when webbing must be tapered such as in slings' eyes.
3. **Hardware strength:** This becomes a factor only when the nominal strength of the hardware is lower than the nominal strength of the sling. If so, the nominal strength of the hardware is used in calculating a sling's rated capacity.
4. **Design factor:** After web nominal strength has been adjusted by applying the fabrication factor, the sling's rated capacity is then determined by using a design factor of 5 to 1, as specified by American Society of Mechanical Engineers (ASME) standard ASME B30.9, Section 9 - 4.4. ANSI and OSHA both require sling manufacturers to document published sling ratings with records of test data.
5. **Random testing:** In addition to using the above factors for calculating each sling's rated capacity, we test randomly selected slings from production runs to make sure every new sling meets or exceeds specifications and the rated capacity.



# CHOOSE MATERIAL, AND COATINGS TO FIT YOUR LOAD

All the synthetic web products in this handbook are both the same and different.

They all have the same proven workmanship and long-lasting quality you can depend on. But they've all been engineered to give you different performance traits and rated capacities to perform to your different lifting needs.

## NYLON VS. POLYESTER

Both materials are heavy webbing loomed specifically to deliver dependable service in tough industrial conditions. Each is offered in two grades or strength ratings, identified in the numbering code of every stock number. Choose the strength that fits your application.

Nylon and polyester perform equally well in many applications, but each is designed for use in specific conditions. Here's a summary of their differences and similarities.

### DIFFERENCES

**Elastic stretch:** Nylon will stretch about 6% when loaded — about twice that of polyester — at sling's rated capacity and still return to original length. Overloading beyond rated capacity will permanently stretch and weaken both types.

**Stability to acids vs. alkalis:** In general, nylon is more stable when exposed to alkalis, while polyester performs better when exposed to acids. But there are exceptions to each. For more details, please check with us.

### SIMILARITIES

**Handling characteristics:** Each type handles the same way. Water absorption is also low for both, which means the sling's rated capacity isn't seriously affected.

**Identical temperature constraints.** Neither nylon nor polyester should be exposed to heat exceeding 194° F (90° C) or below -40° F (-40° C).

**Susceptibility to prolonged sunlight:** Although we've added special treatments to provide some protection against long-term exposure to direct sunlight, both nylon and polyester are vulnerable. In direct exposure to sunlight, properly stabilized nylon outperforms polyester, but when exposed under glass, it's polyester that outperforms nylon. We recommend you store both types inside or under cover.

**Stability under exposure to many common chemicals:** As shown in the chart, neither is affected by common chemicals, normal dry-cleaning solutions, or soap and water. Both also retain their strength in oil and grease.

CHEMICAL	NYLON	POLYESTER
Acid	✗	*
Alcohol	✓	✓
Aldehydes	✓	✗
Strong Alkalis	✓	**
Bleaching Agents	✗	✓
Dry Cleaning Solvents	✓	✓
Ethers	✓	✗
Halogenated Hydrocarbons	✓	✓
Hydrocarbons	✓	✓
Ketones	✓	✓
Oil, Crude	✓	✓
Oil, Lubricating	✓	✓
Soaps, Detergents	✓	✓
Water, Seawater	✓	✓
Weak Alkalis	✓	✓

\*Disintegrated by concentrated sulfuric acid.

\*\*Degraded by strong alkalis at elevated temperatures.

**Both materials work best clean:** Neither material supports the growth of mildew or bacteria, although dirt may accumulate on slings to support such growth. That's why we recommend cleaning with water and then hanging to allow the sling to completely dry before use.