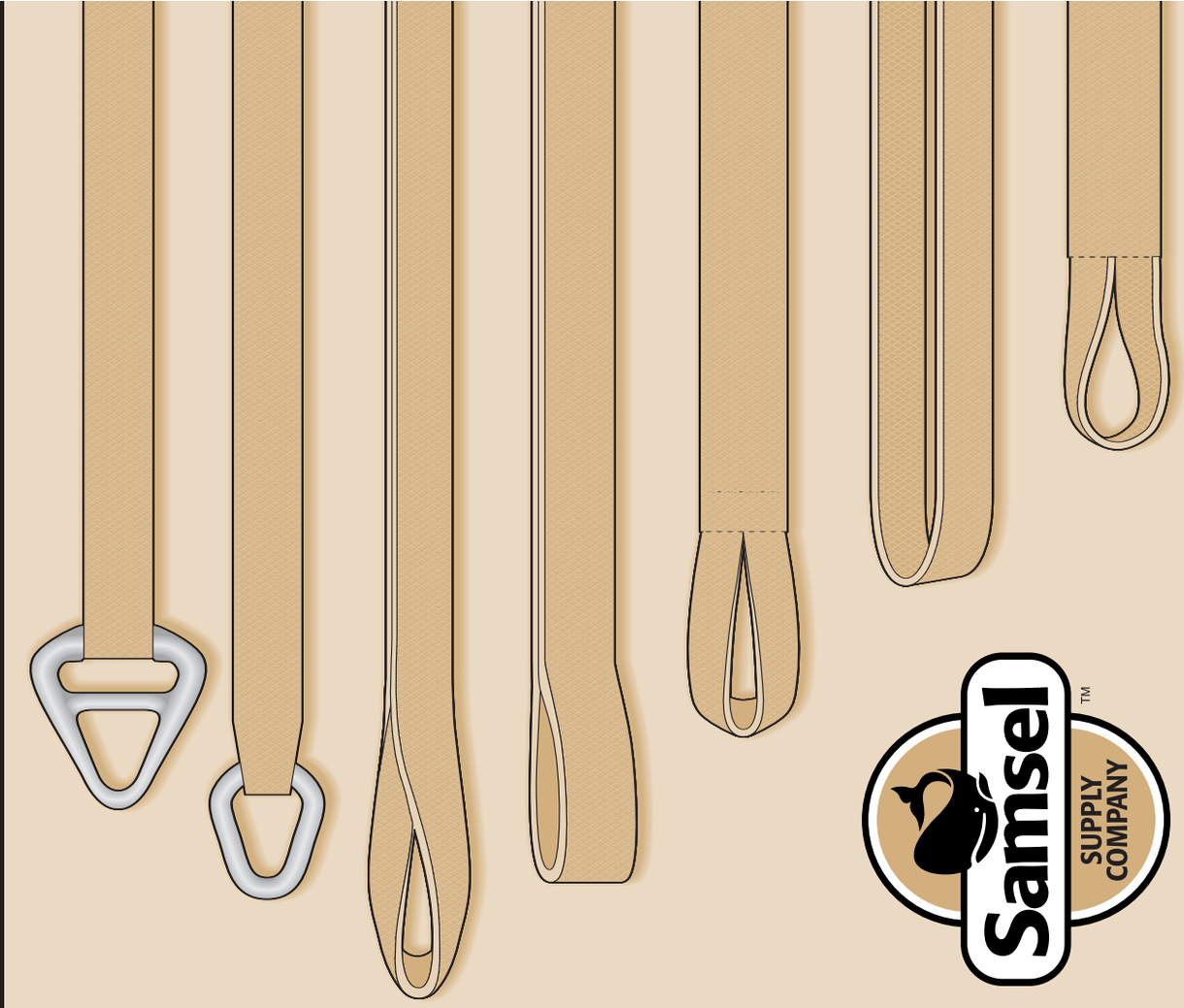
TOUGH NYLON SLINGS



KEEPING TODAY'S WORK FORCE EQUIPPED. AND SAFE.

SAMSEL SUPPLY COMPANY
1285 Old River Road,
Cleveland, Ohio 44113

Samsel's Lifting and Rigging Experts are available to:

- Train your company on the proper use of Nylon Slings, including essential safety issues.
- Handle your required "Below the Hook" Lifting and Rigging Annual Inspections.

info@samselsupply.com

ORDERING INFORMATION

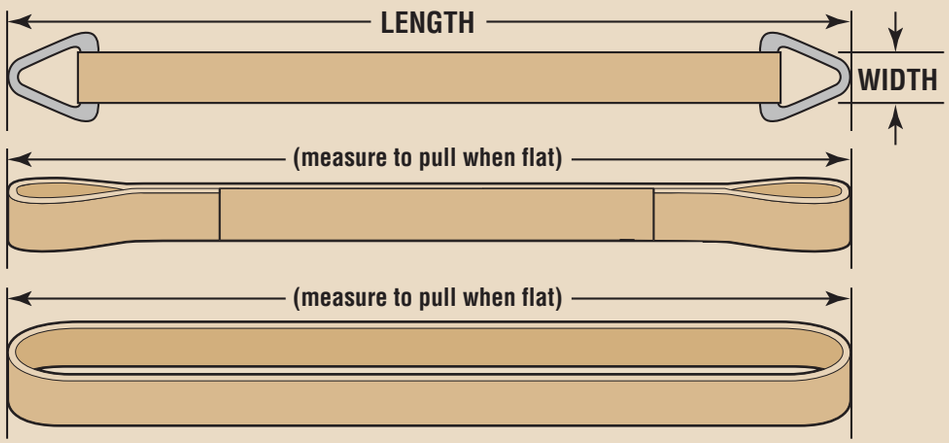
Essential information for ordering Samsel nylon slings

EXAMPLE:

QUANTITY	WIDTH	LENGTH	WEBBING MATERIAL	TYPE SLING	ADDITIONAL INFORMATION- IF REQUIRED
6	2 in.	18 feet	Nylon	1	4 ft length sleeve pad on each

- Show quantity needed.
- Show the width and length needed - measured as shown below.
- Show webbing material (nylon or other).
- Show the type of sling as identified in this literature. (As Type 1,2, or 3 etc. - or specials.)
- Describe wear pads and placement.
- Describe end fittings if special or a choice is indicated.
- Show the type of sling as identified in this literature. (As Type 1,2, or 3 etc. - or specials.)

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



To order:

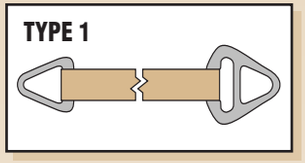
SAMSEL SUPPLY COMPANY
1285 Old River Road,
Cleveland, Ohio 44113
info@samselsupply.com

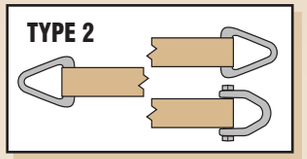
TELEPHONE 216.241.0333
FAX 216.241.3426
OHIO TOLL FREE 800.892.6781
NATIONAL TOLL FREE 800.892.8012

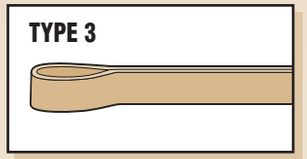
SLING RATED CAPACITIES (IN POUNDS)

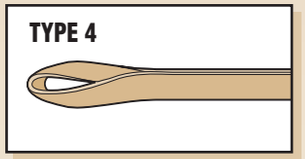
To avoid confusion

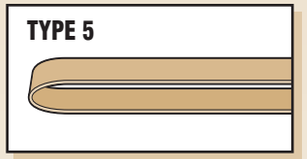
We show the most popular slings. We manufacture slings made from other webbing. If the ratings are not familiar to you - call us. Our representatives will be glad to assist you.

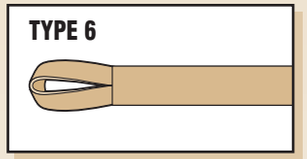


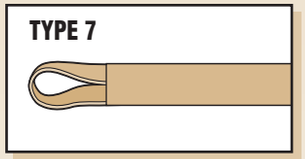












Single ply

STANDARD NYLON SLING CAPACITIES

9800 LB. WEB TYPE 1, 2, 3 & 4	VERTICAL	CHOKER	BASKET
1"	1600	1280	3200
2"	3200	2560	6400
3"	4800	3840	9600
4"	6400	5120	12800
6"	9600	7680	19200
8"	12800	10240	25600
10"	16000	12800	32000
12"	19200	15360	38400

9800 LB. WEB TYPE 5	VERTICAL	CHOKER	BASKET
1"	3200	2560	6400
2"	6400	5120	12800
3"	9600	7680	19200
4"	12800	10240	25600
6"	19200	15360	38400
8"	25600	20480	51200
10"	32000	25600	64000
12"	38400	30720	75800

Double ply

STANDARD NYLON SLING CAPACITIES

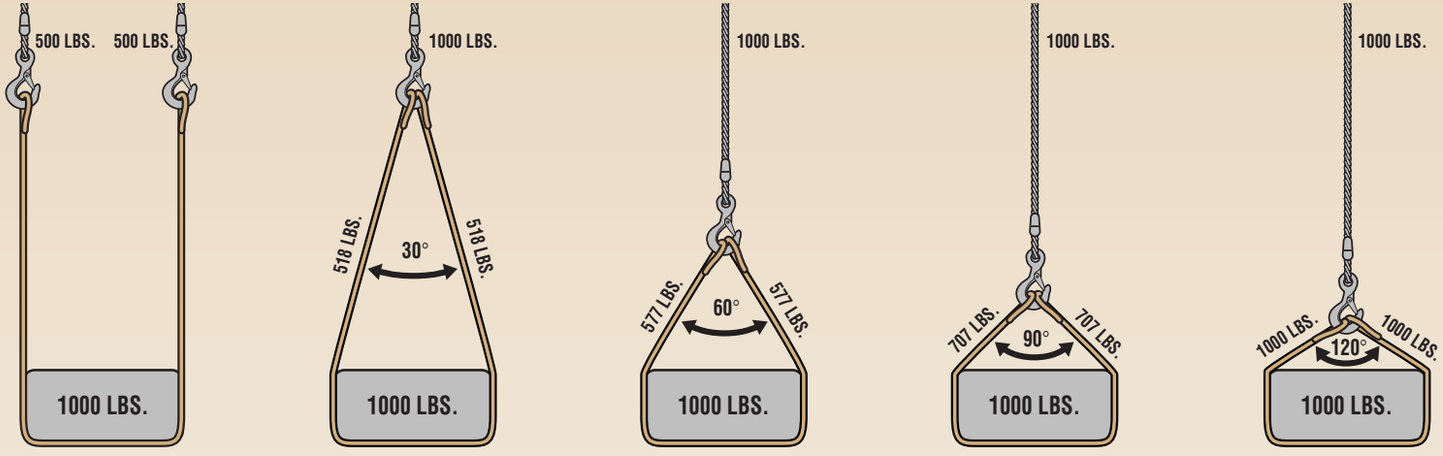
9800 LB. WEB TYPE 1, 2, 3 & 4	VERTICAL	CHOKER	BASKET
1"	3200	2560	6400
2"	6400	5120	12800
3"	8800	7040	17600
4"	11200	8960	22400
6"	16500	13200	33000
8"	20480	16384	40960
10"	24000	19200	48000
12"	28600	22880	57200

9800 LB. WEB TYPE 5	VERTICAL	CHOKER	BASKET
1"	6400	5120	12800
2"	12800	10240	25600
3"	17760	14208	35520
4"	23040	18432	46080
6"	32640	26112	65280
8"	40960	32768	81920
10"	48000	38400	96000
12"	53760	43008	107520

SLING LOAD RATINGS

Sling load stress increases with the angle of strain

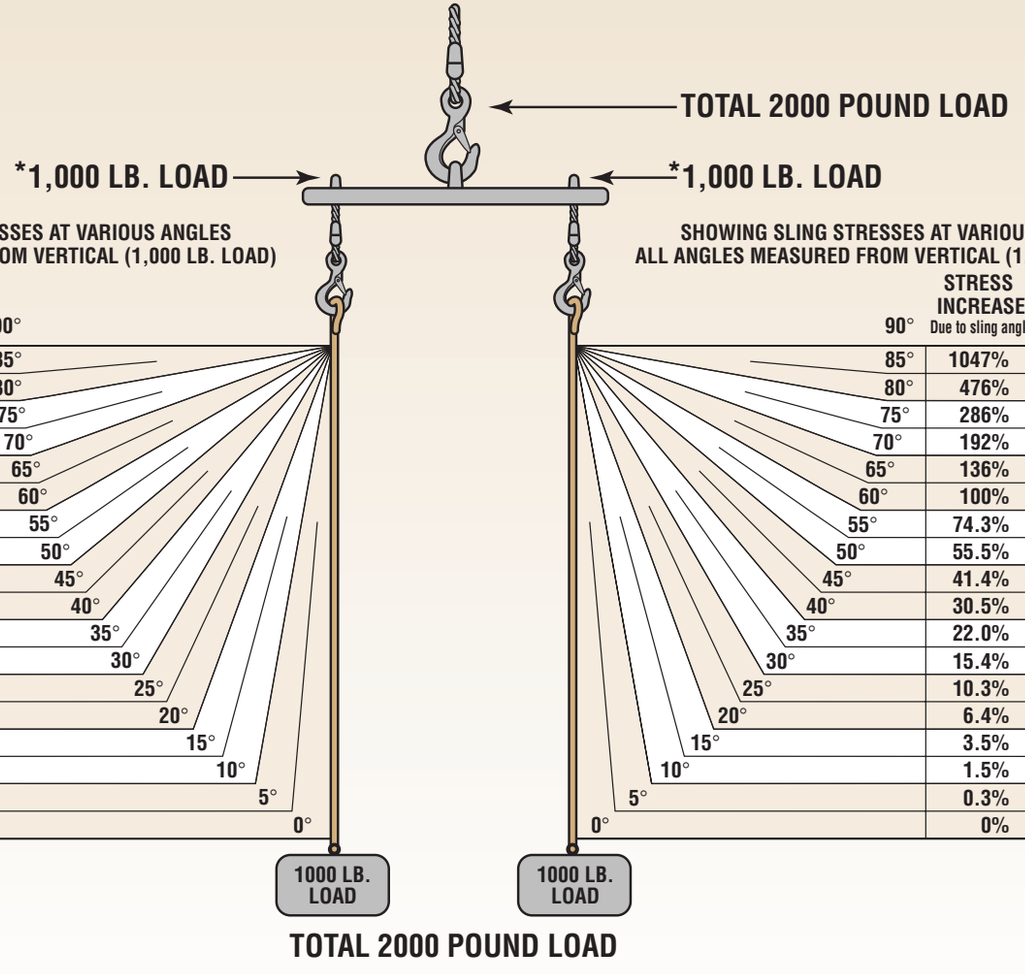
Please notice the change on each leg when the load is lifted by one hook rather than two. See the stress imposed on each leg increase as the angle at the hook changes. This diagram illustrates the danger and the potential for MISUSING A SLING certified to lift 1,000 lb. safely in a basket hitch.



Showing sling stresses 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:

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.



SHOWING SLING STRESSES AT VARIOUS ANGLES
ALL ANGLES MEASURED FROM VERTICAL (1,000 LB. LOAD)

TOTAL Sling stress (Lbs.)	STRESS INCREASE Due to sling angle	
11,473	1047%	85°
5,759	476%	80°
3,863	286%	75°
2,924	192%	70°
2,366	136%	65°
2,000	100%	60°
1,743	74.3%	55°
1,555	55.5%	50°
1,414	41.4%	45°
1,305	30.5%	40°
1,220	22.0%	35°
1,154	15.4%	30°
1,103	10.3%	25°
1,064	6.4%	20°
1,035	3.5%	15°
1,015	1.5%	10°
1,003	0.3%	5°
1,000	0%	0°

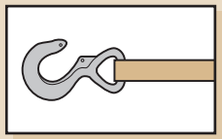
SHOWING SLING STRESSES AT VARIOUS ANGLES
ALL ANGLES MEASURED FROM VERTICAL (1,000 LB. LOAD)

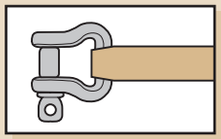
	STRESS INCREASE Due to sling angle	TOTAL Sling stress (Lbs.)
85°	1047%	11,473
80°	476%	5,759
75°	286%	3,863
70°	192%	2,924
65°	136%	2,366
60°	100%	2,000
55°	74.3%	1,743
50°	55.5%	1,555
45°	41.4%	1,414
40°	30.5%	1,305
35°	22.0%	1,220
30°	15.4%	1,154
25°	10.3%	1,103
20°	6.4%	1,064
15°	3.5%	1,035
10°	1.5%	1,015
5°	0.3%	1,003
0°	0%	1,000

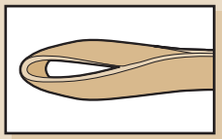
SPECIAL FEATURES

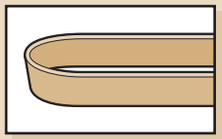
Sling fittings and special features

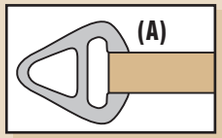
Most sling requirements are covered when ordered by type (style) and measurements. Special applications may make it necessary to order specific end fittings or configurations, and/or to require wear pads.


HOOK

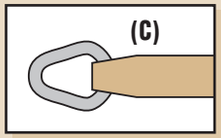

BRIDAL SHACKLE


TWIST EYE

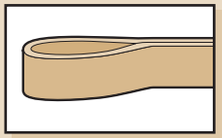

ENDLESS (Grommet)

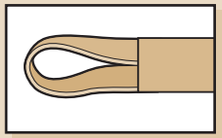


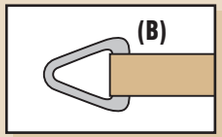
MATING TRIANGLE



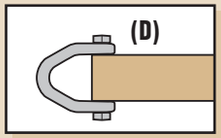
PEAR LINK


FLAT EYE

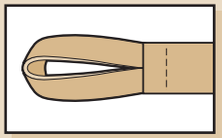

FLAT EYE

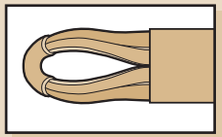


FORGED TRIANGLE



SHACKLE


REVERSED EYE


LOAD BALANCER

(A) Mating Triangle. Used as an end on Type 1 Slings.

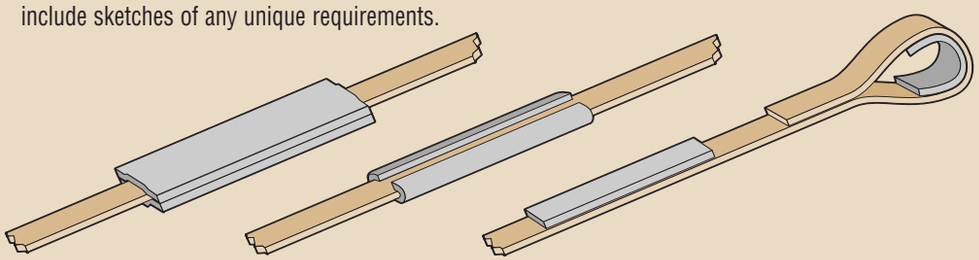
(B) Forged Alloy Steel or Aluminum. Used on Type 2 and as one end on Type 1.

(C) Pear Link, Forged Steel. Used on Basket or Vertical Hitch applications.

(D) Heat Treated Shackles. For Basket Hitch or Vertical applications. Practical as in field replacement shackle.

Wear pads

Often special wear pads are desired 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 webbing at wear points.

EDGEGUARD PADS - Sewn along edges of sling body.

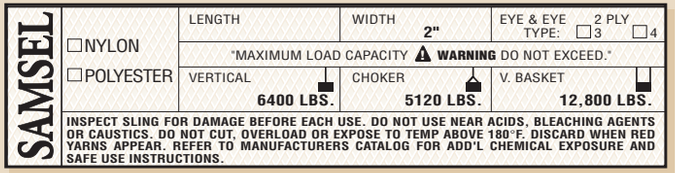
SLEEVE PADS - Protect both sides of sling body and are moveable along length. Sling stretches within pad as load is lifted.

STANDARD PADDING FABRIC - Cordura Nylon

PADS, SPECIAL MATERIAL - Chrome Leather or Webbing the same as the Sling Body.

SAFETY CAUTIONS

Samsel Sling Labels are designed to be always legible.



To assure legibility, our tough vinyl labels are branded with all safety specification and then protected with a clear-coated vinyl, eliminating the chance of OSHA rejection.

The label's yellow color and bold black type makes lifting capabilities and sling limitations easy to read.

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

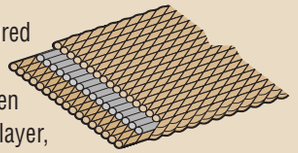
POLYESTER	NYLON	LIQUIDS
*No	No	Acid
OK	OK	Alcohol
No	OK	Aldehydes
**No	OK	Strong Alkalis
OK	No	Bleaching Agents
OK	OK	Dry Cleaning Solvents
No	OK	Ethers
OK	OK	Halogenated Hydrocarbons
OK	OK	Hydrocarbons
OK	OK	Ketones
OK	OK	Oil, Crude
OK	OK	Oil, Lubricating
OK	OK	Soaps, Detergents
OK	OK	Water, Seawater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

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

Nylon: Tested and proven

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

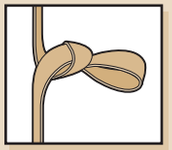
DISCARD SLING WHEN RED WEAR WARNING THREADS SHOW AT SURFACE OF SLING.

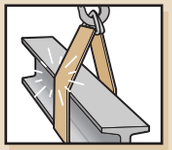


Nylon Slings are manufactured of webbing that has Red Wear-Warning threads woven into the inner load bearing layer, which will become exposed as the protective outer layer becomes damaged or worn away. This serves as a visible warning, simplifying inspection, showing when a sling needs replacement.

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

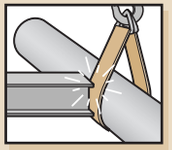
CAUTION: Avoid these unsafe practices


NEVER KNOT TO SHORTEN. Reduces Useful Strength Over 50%


AVOID SHARP EDGES. Guard Against Damage

CHECK ACIDS. Investigate Application Compatibility

AVOID SUNLIGHT. UV Rays Destroy


AVOID BUMPS. Guard Against Damage

AVOID HEAT. Never Over 200˚F Ambient Temperature. Nylon Can Melt