



CATALOG 2024

General Information	Web Slings	Round Slings	Sling Protection	Wire Rope	Chain Slings	Rigging Hardware	Mesh Slings	Load Huggers	Tow Products	Lift-All Hoists	Hoist Rings	Plate Clamps	Lifting Devices
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DEFINITION

WARNING

Warnings serve to indicate a potentially hazardous situation. Failure to read, understand and follow the accompanying instructions on how to avoid these situations could result in serious injury or death.

How To Use This Catalog

If you know the type of product you need, locate the section by looking for the colored page tab. When you move on to the section containing the product you need, you will find specific information regarding that item. Specific ordering instructions are shown in each section of the catalog.

Note: All dimensions and specifications are subject to change without notice. Hardware dimensions are nominal and may vary depending on source. If dimensions are critical to your application, please specify your requirements.

Introducing The *Lift-All*® Company

Company Profile

Started in 1964, *Lift-All* Company, Inc. has grown to be the largest sling manufacturer in North America with over 250 employees working in five manufacturing locations around the United States. Our corporate headquarters is located in Landisville, Pennsylvania.

Manufacturing facilities and warehouses are strategically located throughout the United States. We have Sales Representatives covering the entirety of the U.S., Canada, and Mexico.

Sound engineering principles and a serious concern for safety have been the standard by which *Lift-All* has been producing innovative lifting products for over 55 years.

Lift-All's Mission Statement

Our mission is to be the trusted name in quality lifting and securement products and services by dedicating ourselves to customer satisfaction while providing exceptional value. Our long-term success will be accomplished by a skilled workforce, committed to the principles of teamwork, integrity, and performance.

Disclaimer of Warranties and Limitation of Liability

Seller warrants that its goods are free from defects in materials and workmanship. Accordingly, Seller's liability is limited to replacing without charge or refunding the purchase price or making fair allowance for any noncompliance with any specifications or any defects in materials or workmanship in its products existing at the time of delivery. Seller requires written notice and the return of the product to establish any claim. SELLER MAKES NO OTHER WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE ABOVE OBLIGATION ARE HEREBY DISCLAIMED BY SELLER AND EXCLUDED. Seller will not be liable for any consequential damages, loss or expense arising in connection with the use or inability whatever, regardless of whether damage, loss or expense results from any act or failure to act by Seller, whether negligent or willful or from any other reason.

Find Us



www.lift-all.com



Throughout this catalog trade names are shown in *italic type*.

Throughout this catalog ton (or tons) = 2,000-lbs.

All trade names are the property of *Lift-All* Company unless specifically identified by footnote as the property of another company.

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WHY LIFT-ALL?

Safety Every Single Day

We are on a mission to advance safe lifting for every worker through our activity chairing the Web Sling and Tiedown Association (WSTDA) Roundsling Committee and being actively involved in developing standards for the lifting industry.

Proud U.S. Manufacturer For More Than Half A Century

- The largest domestic full range manufacturer of slings.
- Internationally recognized market leading brand.
- Five manufacturing / distribution / testing centers.
 - Landisville, PA Corporate Headquarters
 - Chicago, IL
 - Houston, TX
 - Las Vegas, NV
 - Atlanta, GA

In-House Industry Leading Design / Engineering Team

Internal Quality Assurance Program

Lift-All ensures top quality products through our in-house Quality Assurance Program, which includes:

1. Detailed specifications for each product.
2. Testing of raw material prior to product manufacturing.
3. Traceability of all slings through serial numbers.
4. Product testing in conformance with industry standards.
5. Proof testing as required (certificates available).
6. Final inspection of products prior to shipment.

Lift-All is dedicated to manufacturing and developing products that meet or exceed current industry and government requirements, including OSHA and ASME B30.9 for lifting slings. *Lift-All* products conform to the following standards:

Product Type	Standard/Specification
Cargo Securement	U.S. DOT, FMCSA 393.102, WSTDA
Chain Slings	OSHA 1910.184, ASME B30.9, NACM
Hoists	ASME B30.16, B30.21
Roundslings	ASME B30.9, WSTDA
Webbing Slings	OSHA 1910.184, ASME B30.9, WSTDA
Wire Mesh Slings	OSHA 1910.184, ASME B30.9
Wire Rope Slings	OSHA 1910.184, ASME B30.9

Custom Lifting Design Solutions Available

We take pride in providing a comprehensive catalog to fill all your needs. Don't see what you're looking for? Our dedicated team of engineers will design the custom solution to get your job done safely.

Local Sales and Application Support

Safety Seminars

Lift-All representatives are available to train your employees on safe lifting and inspection procedures at your location. Our safety driven focus educates users regarding warnings and use instruction. With professional training from *Lift-All*, your employees will be knowledgeable and safe.



WHY LIFT-ALL?

Safety-in-Lifting Training

A 22-minute presentation is available in both English and Spanish at www.lift-all.com. The presentation covers all types of slings and suggests the best type of sling for common lifting applications. You will learn safe lifting procedures, proper inspection criteria, maintenance, and more (in accordance with OSHA and ASME B30.9 guidelines).

Sling Inspection Services

OSHA regulations require that all chain slings receive a thorough inspection at least once per year by a competent person. You now have the opportunity to have a thorough, documented inspection performed by a factory-trained *Lift-All* representative. Chain slings, wire rope slings, web slings, roundslings and wire mesh slings which can be inspected in one survey by a representative from the most recognized manufacturer of lifting and load securement products - *Lift-All* Company.

The Inspection Procedure

Each sling is individually recorded and reported by location, serial number (if available), size, type, reach and condition.

If desired, we will affix a warning to those slings found to be damaged.

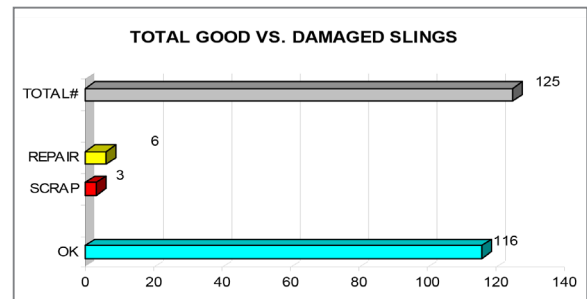
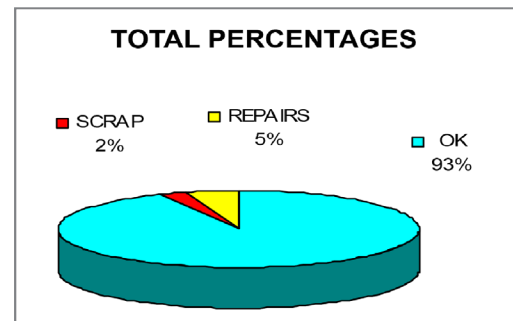
A sling survey report will be submitted to you for your records, showing the above details and including graphs for a quick representation of your inspection.

Let us help you reduce your overall cost of slings and make your lifts safer by identifying recurring problems and offering solutions to keep your slings in service longer.

If you wish to repair or replace any of the damaged slings, we will provide cost estimates to do so.

Sling Inspections not only help to ensure safe lifting equipment but also increase employee awareness of sling safety, creating a safer workplace for all.

To inquire about or arrange for your sling inspection, please call us at 800-909-1964.



Virtual Meetings and Training Available

We are available via Microsoft Teams, Zoom, Skype and WebEx.

Joint Sales Call Support & On-Site Lifting Consultation

Lift-All District Sales Managers team up with our distributors to work with the end user to provide support and solutions.

Free *Lift-All* Sling Calculator Phone App

The link is available from our website or download directly from the App Store or Google Play.

Market Leading Customer Support

- Dedicated Customer Service Agents
- EDI and ACH capabilities
- E-Commerce Portal to serve our distributors

Customer Marketing Support

- Co-Op provided
- Ability to provide customized tagging and packaging
- E-Commerce/Digital Content Support

Lift-All Saves You Money

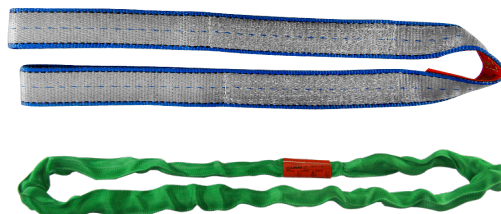
Our combination of uncompromising product quality, service and technology make *Lift-All* your best choice in long-term value.

SLING SELECTION

Which Type of Sling Should I Choose?

General Use of Different Types of Slings

Synthetic Slings — Lightweight and flexible, synthetic slings reduce fatigue and strain on riggers. Web slings can be ordered in a wide variety of materials and configurations, from eye/eye to wide-lifts to bridles. *Tuflex®* roundslings with color-coded capacities, *KeyFlex™* Aramid roundslings and *DynaFlex™ Dyneema®* roundslings are easy to use, especially in choker hitch configurations. Synthetic slings offer the greatest range of lifting solutions for your application.



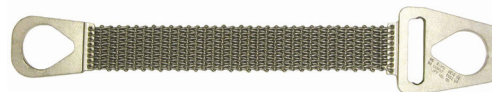
Wire Rope Slings — The most common and lowest cost sling per capacity. Wire rope slings are abrasion resistant, yet flexible. Perfect for the construction industry and anywhere heavy loads and rugged conditions exist.



Chain Slings — Alloy chain slings combine superior strength, ease of handling and durability. Chain slings are a great solution where elevated temperatures or severe lift conditions are present. Typical chain sling applications are found in steel mills, foundries and heavy machining operations.



Wire Mesh and Chain Mesh Slings — These slings excel in lifting objects that are hot or have sharp edges, such as bar stock or plate steel. Mesh slings greatly enhance load balancing due to their wide load bearing surface. You will find mesh slings used in machine shops and steel warehouses.



GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

Safe Operating Practices

1. **Sling users must be trained** in operating practices, including sling selection, use, inspection, rigging practices, cautions to personnel, and effects of the environment.
2. **Inspect sling before each use** and remove from service if damaged.
3. **Protect sling from being cut or damaged** by corners, protrusions, or from contact with edges that are not well rounded, using material of sufficient strength, thickness and construction to prevent damage.
4. **Use sling properly.** Do not exceed a sling's rated capacities and always consider how the sling angle affects the amount of tension on the sling.
5. **Stand clear of the load.** Do not stand on, under, or near a load, and be alert to dangers from falling and moving loads, and the potential for snagging.
6. **Maintain and store sling properly.** The sling should be protected from mechanical, chemical and environmental damage.

1. TRAINING

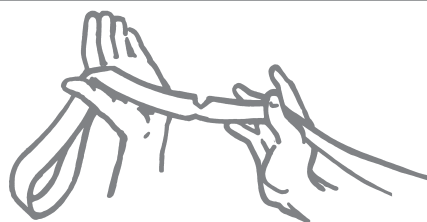
Sling users must be trained and knowledgeable

Sling users must be knowledgeable about the safe and proper use of slings and be aware of their responsibilities as outlined in all applicable standards and regulations.

ASME B30.9 states, "Sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment, and rigging practices."

OSHA Sling Regulation 29 CFR 1910.184 states that a qualified person is one *"who, by possession of a recognized degree or certificate of professional standing in an applicable field, or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work."*

If you are unsure whether you are properly trained and knowledgeable, or if you are unsure of what the standards and regulations require of you, ask your employer for information and/or training — **DO NOT** use slings if you are unsure of what you are doing. Lack of skill, knowledge or care can result in severe **INJURY** or **DEATH** to you and others.



The Safety Bulletin that accompanies each sling must be read and understood by all sling users. See sling abuse illustrations in their respective section of this catalog. Damaged slings should never be used. It is possible (in some instances), to repair slings, proof-test and return them to service. Damaged components and sections of chain or wire mesh can be replaced. Hooks, links and other components that are in good condition can be salvaged from a damaged web or round sling; then re-webbed and proof-tested by Lift-All and returned to service.

2. INSPECTIONS

Damaged or defective slings shall be immediately removed from service.

Inspection Frequency

Initial Inspection — Each new sling must be inspected by a designated person to help ensure that the correct sling has been received, is undamaged and meets applicable requirements for its intended use.

Frequent Inspection — Slings must be inspected for damage before each use by the user or other designated person. Refer to safety bulletin provided with each sling.

Periodic Inspection — Every sling must be inspected periodically. The designated person should be someone other than the person performing the frequent inspection.

The frequency of periodic inspections should be based on the sling's actual or expected use, the severity of service and experience gained during the inspection of other slings used in similar circumstances, but must not exceed a one-year interval. General guidelines for the frequency of periodic inspections are:

- Normal service — yearly
- Severe service — monthly to quarterly
- Special service — as recommended

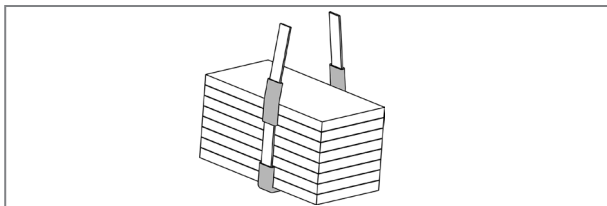
A written record of the most recent periodic inspection must be maintained. See WSTDA WS-1 for definitions of service conditions.

For specific inspection criteria for Lift-All slings, see the information at the end of each product section.

All sling users must read and understand the safety bulletin provided with each sling.

GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

3. PROTECT SLINGS



The cutting of synthetic slings is the primary cause of sling failure, usually caused by a sharp or small diameter load edge against the sling. Proper protection must be used to avoid cutting. (See Sling Protection section).

Heavy abrasion will seriously degrade sling strength. Rough load surfaces and dragging slings on the ground will damage all slings, steel or synthetic. Use proper sling protection between slings and rough loads. Never drag slings on the ground or concrete floors.

Sling Protection

A qualified person must select materials and methods that adequately protect slings from edges or surfaces. The sling protection section of this catalog includes information on available cut protection products and wear protection products. No protective device is cut proof.

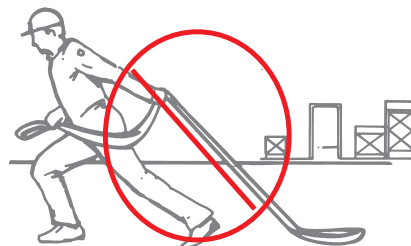
Some protection devices provide abrasion resistance but offer virtually no protection against cuts. Several test lifts (done in a non-consequence setting), may be necessary to determine the suitability of each protection device. After each test lift, inspect all slings and protection devices for damage.

Foreign Matter

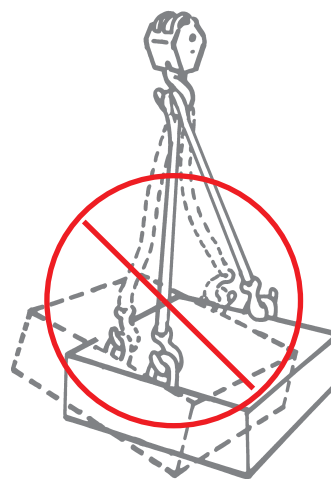
Material such as metal chips and heavy grit can damage slings, both internally and externally. Avoid contact with foreign matter whenever possible.

4. USE SLINGS PROPERLY

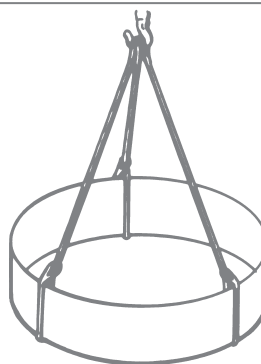
Improper Loading — Shock Loading, unbalanced loading, overloading and inadequate consideration for the effect of angle factors can adversely affect safety. Make sure the load weight is within the rated capacity of the sling(s) being used for both type of hitch, and angle of lift. OSHA wording.



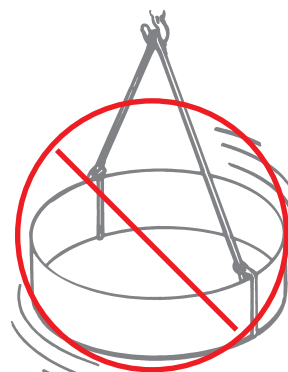
Slings should not be dragged on floor.



Do not shock load. Jerking the load could overload the sling and cause it to fail.



Right Way

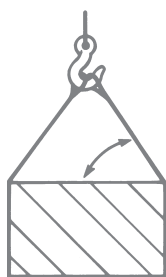
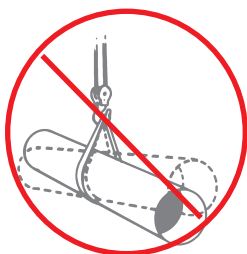


Wrong Way

Lift must be stable and balanced with respect to the center of gravity.

GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

A qualified person must choose the quantity of slings, location of attachments, and the hitch types needed to effectively maintain load control.



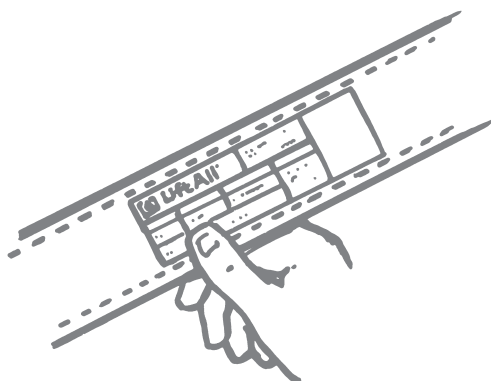
Angle of lift must be considered in all lifts. See Effect of Angle section of this catalog.

Temperature: Avoid loads and environments where temperatures exceed the limits of the slings being used. All slings can be damaged by excessive heat, including heat from welding torches and weld spatter.

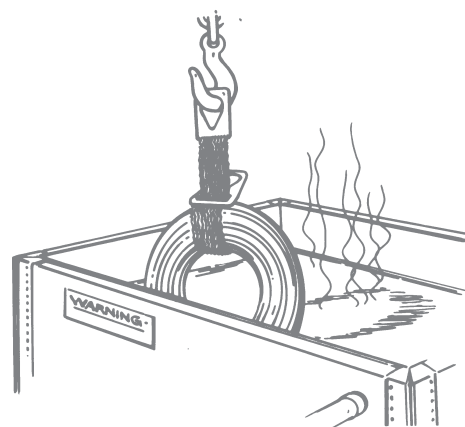
Chemical Environment: Slings exposed to certain chemicals or the vapors of these chemicals can lose some or all of their strength. When using slings in a chemical environment, contact *Lift-All* to ensure sling compatibility.

Temperature and chemical environment must be considered. See specific sling types for data.

Slings shall not be loaded in excess of their rated capacities. OSHA wording.

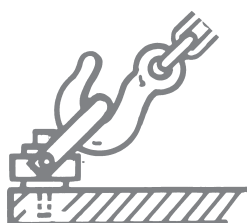


Rated Capacity (Working Load Limit) must be shown by markings or tags attached to all slings.



Slings shall be securely attached to their loads. OSHA wording.

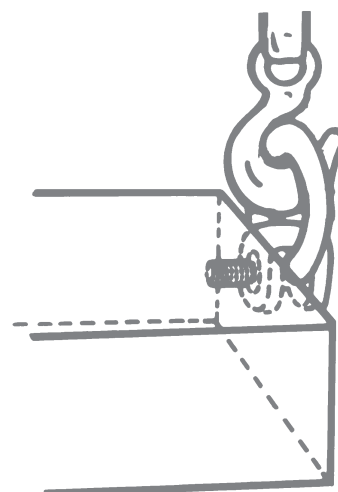
Do not point load hooks — center load in base of hook.



Right Way



Wrong Way



GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

General Information

Web Slings

Round Slings

Sling Protection

Wire Rope

Chain Slings

Rigging Hardware

Mesh Slings

Load Huggers

Tow Products

Lift-All Hoists

Hoist Rings

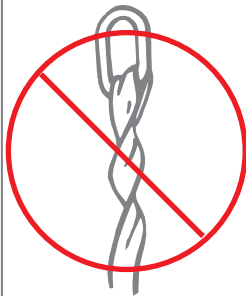
Plate Clamps

Lifting Devices

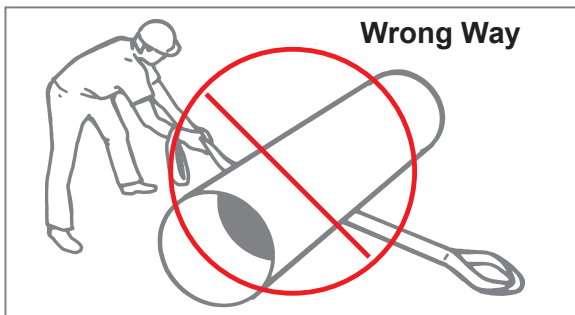
Slings shall not be shortened with knots or bolts or other makeshift devices. OSHA wording.



Sling legs shall not be kinked. OSHA wording.



A sling shall not be pulled from under a load when the load is resting on the sling. OSHA wording.



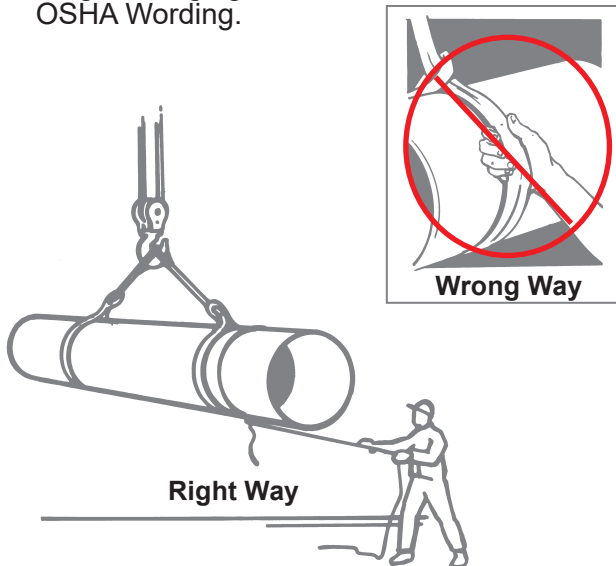
Right Way



Prior to lifting the load, prepare the area where it is to be put down. Lumber can be used to allow space for removing the sling and prevent shifting.

5. STAND CLEAR OF THE LOAD

Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load. OSHA Wording.



Tag lines may be used to help keep personnel away from the load.

Suspended loads shall be kept clear of all obstructions.

All employees shall be kept clear of loads about to be lifted and of suspended loads. OSHA wording.

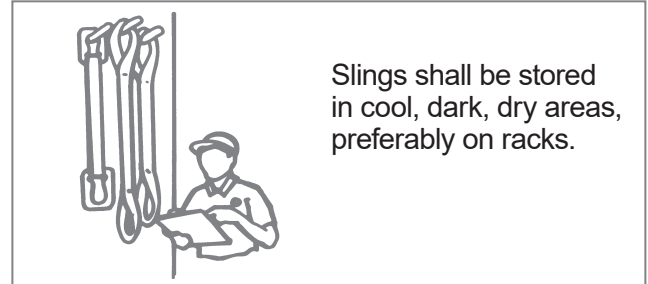


GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

6. MAINTAIN & STORE SLINGS PROPERLY

Attempt to keep slings clean and free of dirt, grime, and foreign materials.

When not in use, slings should be stored in an area free from environmental or mechanical sources of damage, such as weld spatter; splinters from grinding or machining; or sources of UV, heat or chemical exposure; etc.



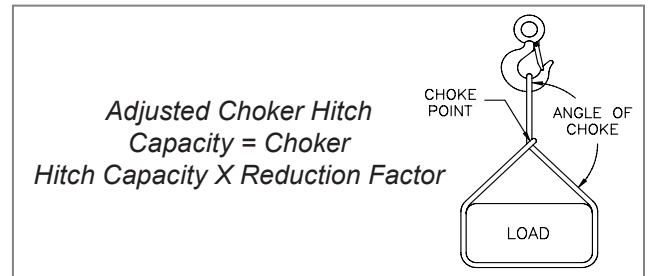
Additional Factors to consider when handling loads

- Integrity of the attachment points.
- Structural stability of the load.
- Loose parts that could fall from load.
- Power lines in the area.
- Secure a clear load path and avoid any contact with objects that would impede load movement.
- Tag lines can often be attached to the load and be used to aid in controlling load position.

CHOKER HITCH ANGLES

Choker Hitch Angles

When a choke hitch is used, and the angle of choke is less than 120°, the sling choker hitch capacity decreases. To determine the actual sling capacity at a given angle of choke, multiply the sling capacity choke rating by the appropriate reduction factor determined from the below. Sling capacity decreases as choke angle decreases.



REDUCTION IN RATED CAPACITY AS A FUNCTION OF ANGLE OF CHOKE

SYNTHETIC SLINGS		
Angle of Choke		Factor
> or =	<	
120	180	1.00
105	120	.82
90	105	.71
60	90	.58
0	60	.50

WIRE ROPE SLINGS		
Angle of Choke		Factor
> or =	<	
120	180	1.00
90	120	.87
60	90	.74
30	60	.62
0	30	.49

Lift-All is dedicated to manufacturing and developing products for material handling that meet or exceed current industry and government requirements (OSHA and ASME B30.9). Ultimately, the life and strength of any sling depend on those who inspect, use and maintain the product.

The ASME B30.9 Sling Safety Standard can be obtained from:
ASME Customer Service
Phone: 800-843-2763
www.asme.org

Occupational Safety and Health Administration (OSHA) "Industrial Slings" Regulations are published by the Office of the Federal Register, National Archives and Records Administration — Part 29 1910.184
www.osha.gov

EFFECT OF SLING ANGLE

Using slings at an angle **can become deadly** if that angle is not taken into consideration when selecting the sling to be used. The tension on each leg of the sling is increased as the angle of lift, from horizontal, decreases. It is most desirable for a sling to have a larger angle of lift, approaching 90°. Lifts with angles of less than 30° from horizontal are not recommended. If you can measure the angle of lift or the length and height of the sling as rigged, you can determine the properly rated sling for your lift. The Increased Tension method provides the increased tension as a function of the sling angle. Alternatively, the sling Reduced Capacity method may be used to determine reduced lift capacity for any angle.

INCREASED TENSION

Determine capacity of sling needed

1. Determine the load weight (LW).
2. Calculate the tension factor (TF):
 - a. Determine the sling angle as measured from the horizontal, and the corresponding tension factor (TF) from the effect of angle chart.

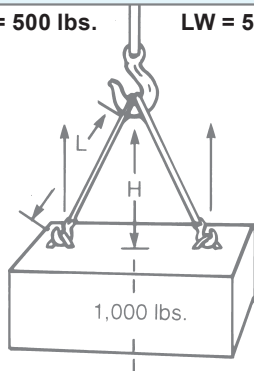
OR

- b. Length* (L) divided by height* (H)
3. Determine the share of the load applied to each sling leg (LW).
 4. Multiply (LW) by (TF) to determine the sling leg tension. The capacity of the selected sling or sling leg must meet the calculated tension value.

* Measured from a common horizontal plane to the hoisting hook.

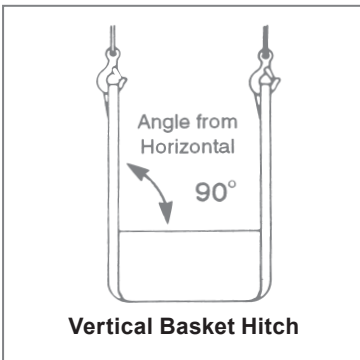
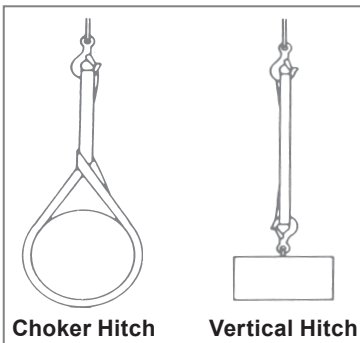
INCREASED TENSION

LW = 500 lbs. LW = 500 lbs.



EXAMPLE

Load weight: 1,000 lbs.
 Rigging: Two slings in vertical hitch
 Lifting weight (LW) per sling: 500 lbs.
 Measured sling length (L): 10 ft.
 Measured Sling Height (H): 5 ft.
 Tension factor (TF): $10(L) \div 5(H) = 2.0$
 Minimum vertical rated capacity required for this lift:
 $500(LW) \times 2.0(TF) = 1,000 \text{ lbs. per sling}$



REDUCED CAPACITY

Calculate rating of each sling rigged at this angle

1. Calculate the reduction factor (RF).
 - a. Using the angle from horizontal, read across the angle chart to the corresponding number in the Reduction Factor column.

OR

- b. Divide sling height* (H) by sling length* (L).
2. Reduction factor (RF) x the sling's rated capacity for the type hitch that will be used = sling's reduced rating.

* Measured from a common horizontal plane to the hoisting hook.

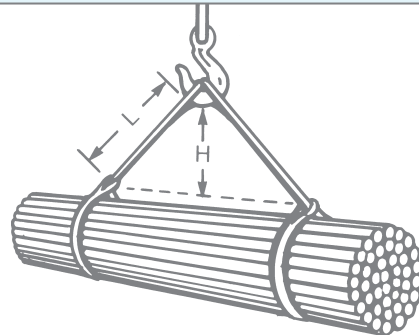
EFFECT OF ANGLE CHART

Tension Factor (TF)	Angle From Horizontal	Reduction Factor (RF)
1.000	90°	1.000
1.004	85°	0.996
1.015	80°	0.985
1.035	75°	0.966
1.064	70°	0.940
1.104	65°	0.906
1.155	60°	0.866
1.221	55°	0.819
1.305	50°	0.766
1.414	45°	0.707
1.555	40°	0.643
1.742	35°	0.574
2.000	30°	0.500

Sling capacity decreases as the angle from horizontal decreases.

Sling angles of less than 30° are not recommended.

REDUCED CAPACITY

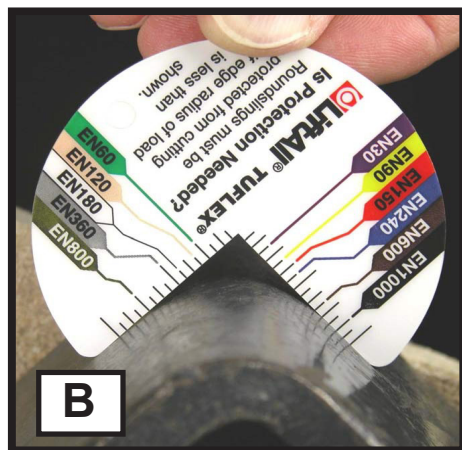


EXAMPLE

Vertical choker rating of ea. sling: 6,000 lbs.
 Measured sling length (L): 6 ft.
 Measured sling height (H): 4 ft.
 Reduction factor (RF): $4(H) \div 6(L) = .667$
 Reduced sling rating in this configuration:
 $667(RF) \times 6,000 \text{ lbs.} = 4,000 \text{ lbs. of lifting capacity per sling}$

EDGE RADIUS MANAGEMENT TOOL RAD-MAN™

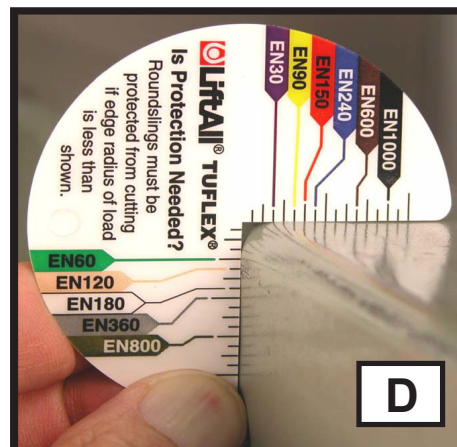
The *Lift-All* Edge Radius Management tool (*RAD-MAN*) assists in the evaluation of loads to be lifted with either roundslings or web slings by providing an easy way to measure the radius of a load edge. This document conforms to *Lift-All* requirements and the WSTDA RS-1 polyester roundsling standard. *Lift-All* minimum edge radius tables are available for web slings, and also for *Tuflex*® polyester, *DynaFlex*™ *Dyneema*® and *KeyFlex*™ Aramid roundslings.



How to Use RAD-MAN

1. *RAD-MAN* can be used to either measure the radius (Photo A), or be used to directly check the suitability of a particular *Tuflex* size (Photo B).
2. Choose Side A or B and then position *RAD-MAN* over the edge that will be in contact with the sling.
3. *RAD-MAN* can be used to measure edges of 90° or less. When positioned correctly, both sides of the load edge will first touch *RAD-MAN* at the same point on each side. The radius of this edge appears to be 3/4 of an inch.
4. This side of *RAD-MAN* shows the required minimum radius for the various *Tuflex*® roundslings to be used without additional protection. In this photo, the load edge appears to first touch *RAD-MAN* at the EN800. This means that an EN800 or any smaller size would be good to use against this edge. An EN1000 would need to have suitable sling cut protection.

If you are having difficulty in reading the measurement, always err on the safe side. In this case, if you think that the first touch might be at the EN800 but aren't sure, and you are using it to its' full rated capacity, then use sling protection.



Application Examples and Best Practices

As another example, the measurement here looks like 3/16 of an inch. The only *Tuflex* size that can lift to capacity against this edge would be an EN30. All others would need additional protection.

When using any web sling or roundsling at less than its' rated capacity, the minimum edge radius allowed may be reduced by the same percentage as the slings tension is to its' rated capacity.

For instance, an EN150 sling at full capacity needs a radius of 3/8" or greater. An EN150 being used at only 1/2 of its' rated capacity could be used on a 3/16" radius without needing additional protection (i.e. 3/8" x .50 = 3/16").

For additional information on calculating allowable minimum edges when using a sling at less than its' rated capacity, please refer to *Lift-All* Technical Bulletin RS-48 or contact the *Lift-All* Engineering Department.