CATALOG 2021

Table of Contents

General Information

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 sling you need, locate the section by looking for the colored page tab. When you move on to the section containing the sling you need, you will find specific information regarding that sling. 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 *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.

WHY *LIFT-ALL*® COMPANY

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

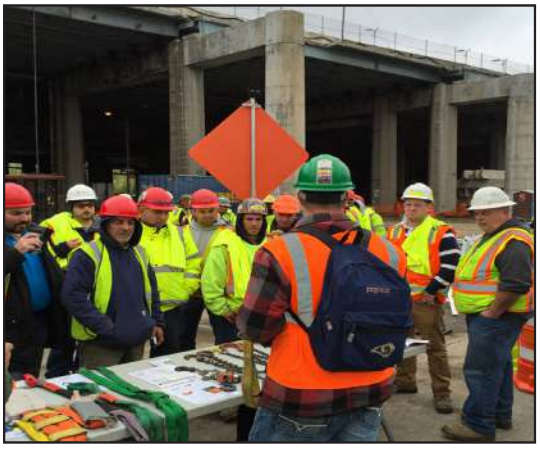
Custom Lifting Design Solutions Available

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.

Local Sales and Application Support

Sling 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*® COMPANY

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 all can be inspected in one survey by a representative from the most recognized company that makes them all — *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.

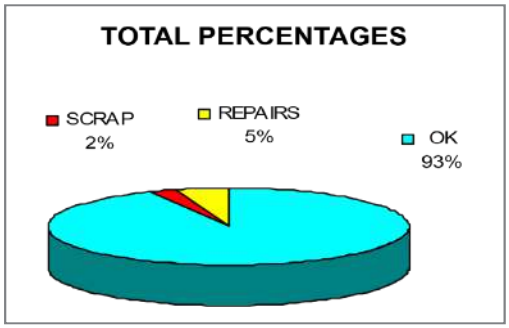
A sling survey report will be submitted to you for your records, showing the above details and including graphs for a quick representation of your inspection.

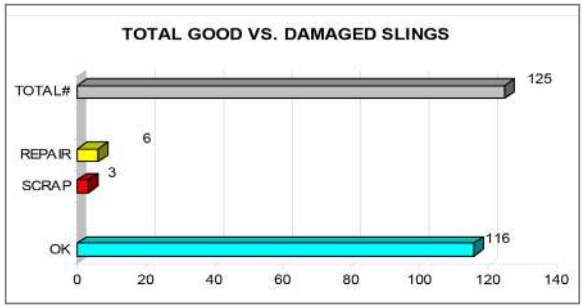
Let us help you reduce your overall cost of slings and make your lifts safer by identifying recurring problems and offering solutions to keep your slings in service longer.

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

Link available from our website, or download directly from the App Store for Apple or Google Play for Android.

Market Leading Customer Support

- Dedicated Customer Service Agents
- EDI capability
- 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

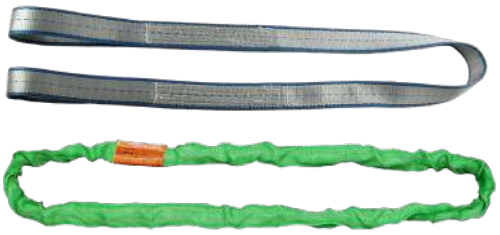
Our combination of uncompromising product quality, service and technology make *Lift-All* your best choice in long-term value.

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 are easy to use, especially in choker hitch configurations. Synthetic slings offer the greatest range of lifting applications.



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 great for heavy loads, where elevated working temperatures or severe lift conditions are present. Typical chain sling applications are found in steel mills, foundries and heavy machining operations requiring repetitive lifts.

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.

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.

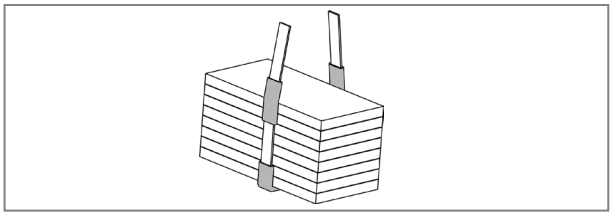
For specific inspection criteria for Lift-All slings, see the information at the end of each product section.

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

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.

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 padding 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.

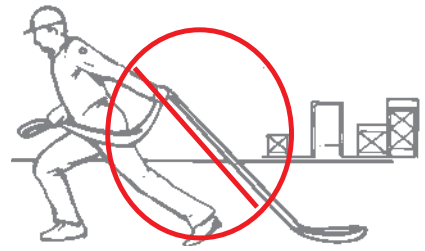
Some protection devices provide abrasion resistance but offer virtually no protection against cuts. Several test lifts (done in a non-consequence setting), may be necessary to determine the suitability of each protection device. After each test lift, inspect all slings and protection devices for damage.

Foreign Matter

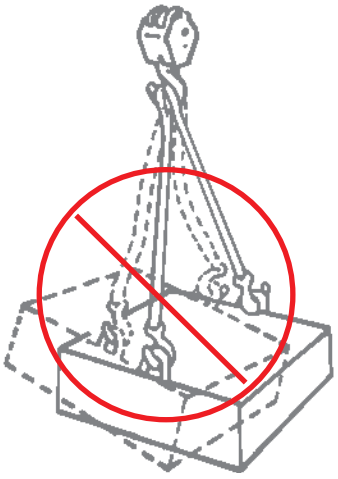
Material such as metal chips and heavy grit can damage slings, both internally and externally. Avoid contact with foreign matter whenever possible.

4. USE SLINGS PROPERLY

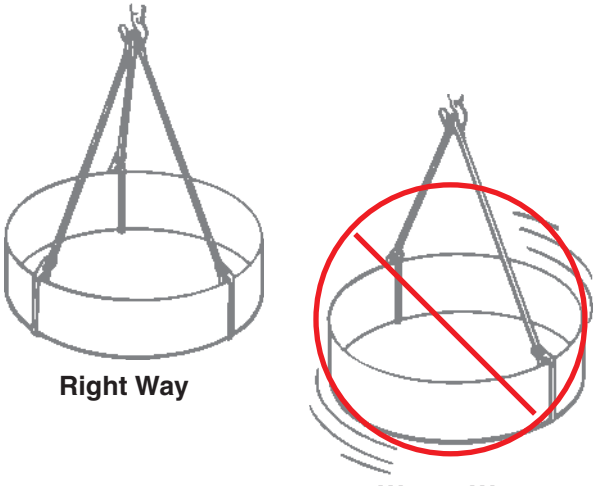
Improper Loading — *Shock Loading, unbalanced loading, overloading and inadequate consideration for the effect of angle factors can adversely affect safety. Make sure the load weight is within the rated capacity of the sling(s) being used for both type of hitch, and angle of lift. OSHA* wording.



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

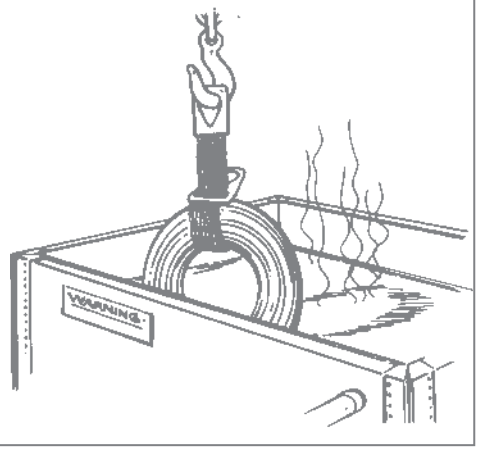
A qualified person must choose the quantity of slings, location of attachments, and the hitch types needed to effectively maintain load control.

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

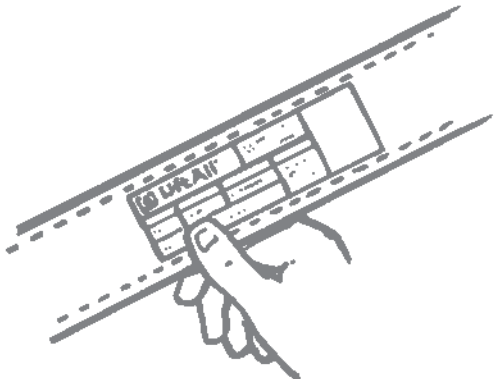
Temperature: Avoid loads and environments where temperatures exceed the limits of the slings being used. All slings can be damaged by excessive heat, including heat from welding torches and weld spatter.

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.

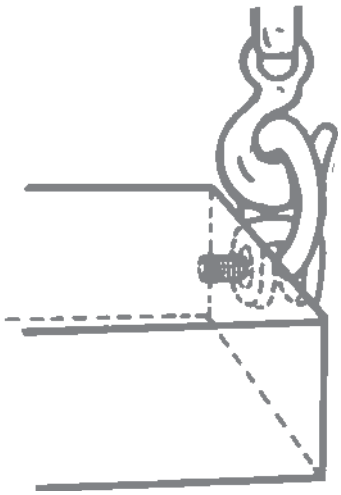


Slings shall not be loaded in excess of their rated capacities. OSHA wording.



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.



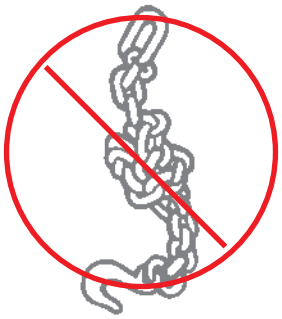
Do not point load hooks — center load in base of hook.

Right Way

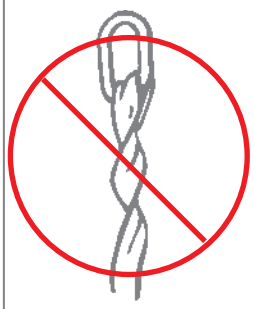
Wrong Way

GENERAL OSHA & MANUFACTURER REQUIREMENTS FOR ALL SLINGS

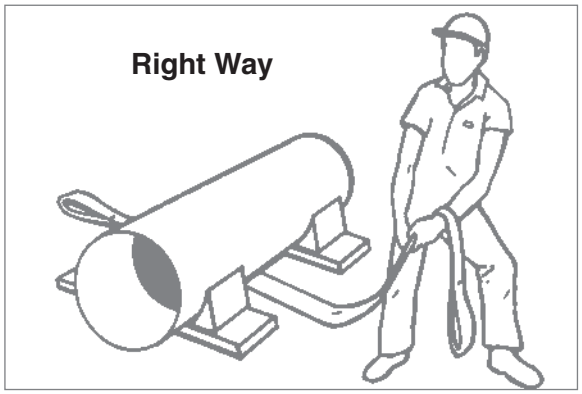
Slings shall not be shortened with knots or bolts or other make-shift devices. OSHA wording.

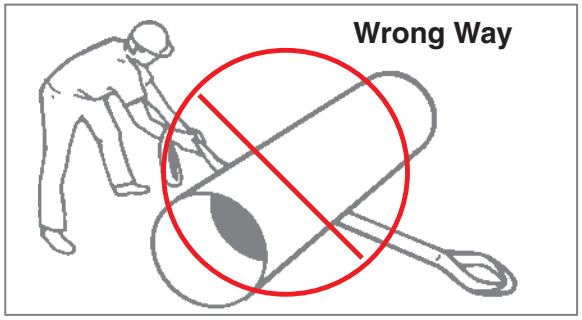


Sling legs shall not be kinked. OSHA wording.



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

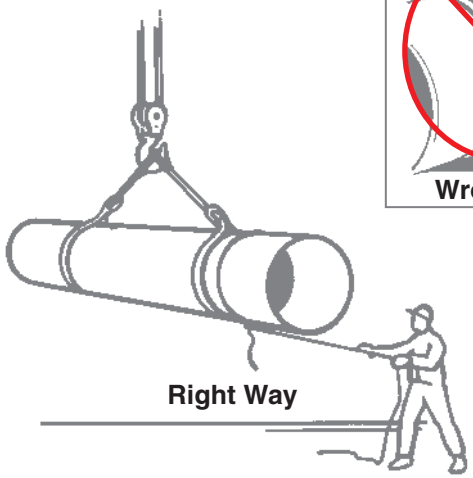




Prior to lifting the load, prepare the area where it is to be put down. Lumber can be used to allow space for removing the sling and prevent shifting.

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 Information

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.

Slings shall be stored in cool, dark, dry areas, preferably on racks.

Additional Factors to consider when handling loads

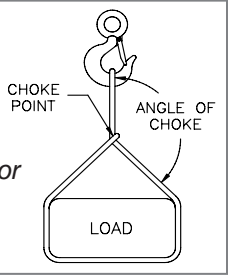
- Integrity of the attachment points.
- Structural stability of the load.
- Loose parts that could fall from load.
- Power lines in the area.
- Secure a clear load path and avoid any contact with objects that would impede load movement.
- Tag lines can often be attached to the load and be used to aid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

Adjusted Choker Hitch Capacity = Choker Hitch Capacity X Reduction Factor



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 it.

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.

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.

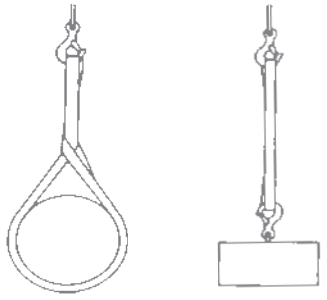
OR

b. Length* (L) divided by height* (H).

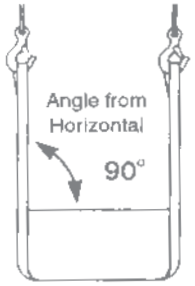
3. Determine the share of the load applied to each sling leg (LW).

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.*



Choker Hitch **Vertical Hitch**



Vertical Basket Hitch

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

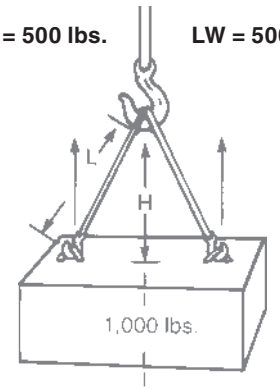
b. Divide sling height* (H) by sling length* (L).

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.*

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) ÷ 5(H) = 2.0
Minimum vertical rated capacity required for this lift:
500(LW) X 2.0(TF) = 1000-lbs. per sling

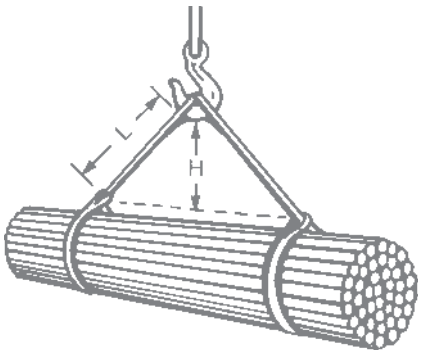
EFFECT OF ANGLE CHART

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.

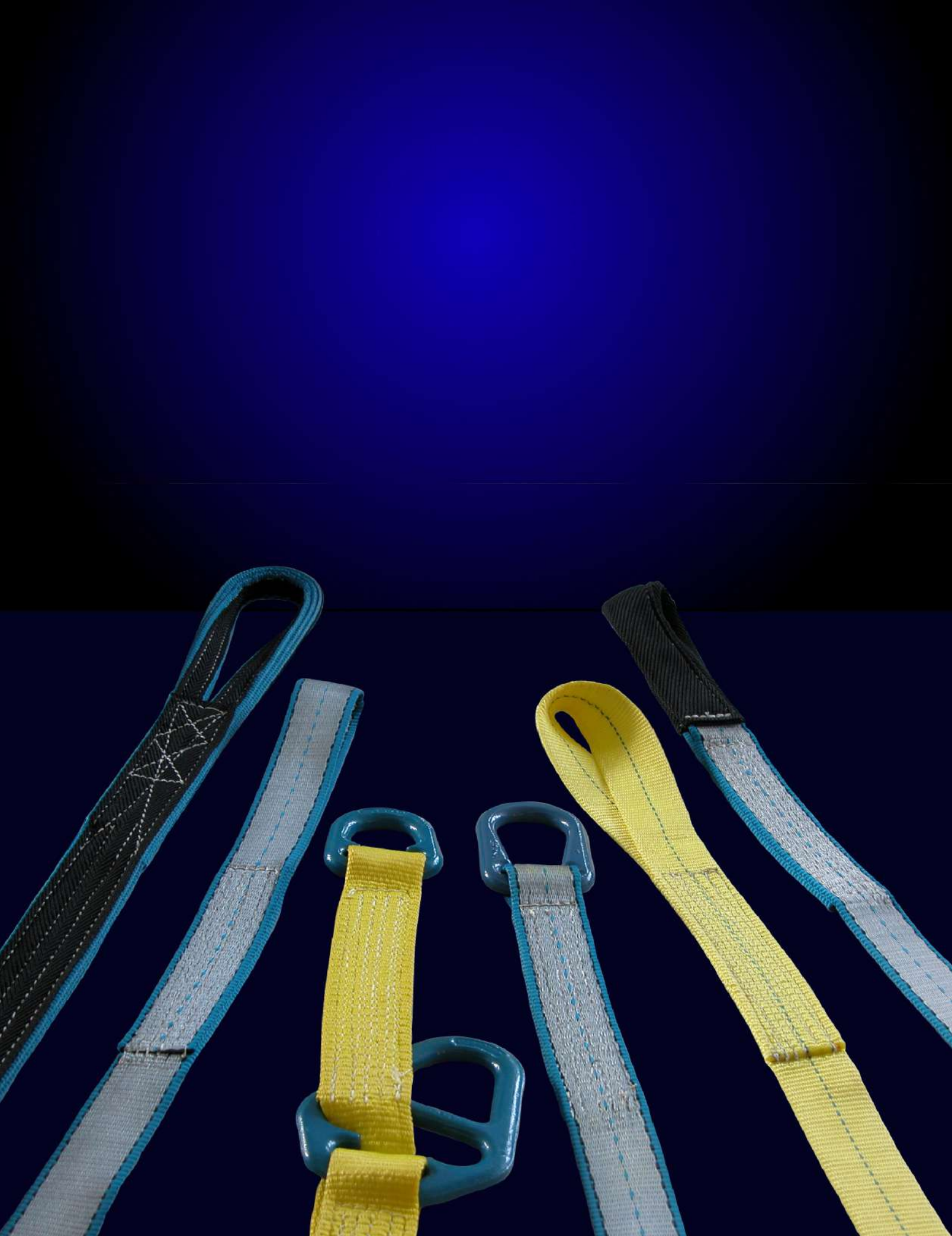
Sling angles of less than 30° *are not recommended.*

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) ÷ 6(L) = .667
Reduced sling rating in this configuration:
667(RF) X 6,000-lbs. = 4,000-lbs. of lifting capacity per sling

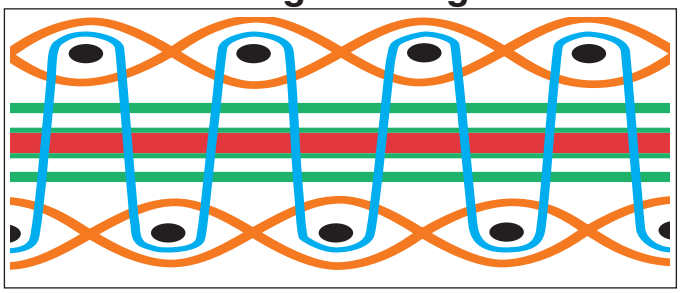


WHY LIFT-ALL WEB SLINGS?

Lift-All web slings meet or exceed OSHA, ASME B30.9 and WSTDA standards and regulations

All sling webbing contained in this catalog is recommended for general purpose lifting. Sling webbing has surface yarns connected from side to side, which not only protect the core yarns, but position surface and tensile yarns to work together to support the load. Wear or damage to sling webbing face yarns cause an immediate strength loss. Sling webbing has red core yarns to visually reveal damage which is one indicator for sling rejection. Please read warning sheet provided with each sling for additional details.

Sling Webbing



- Transverse pick yarns inter-relate with binder/surface yarns.
- Woven surface yarns cover each side and carry a portion of the load.
- Strip of longitudinal core yarns bears majority of load.
- Binder yarns secure the surface yarns to web core yarns.
- Red core warning yarns.

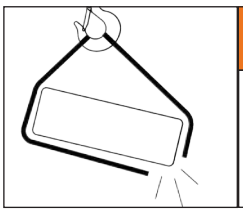
TUFF-TAG™

OSHA requires all web slings to show rated capacities and type of material. The *Lift-All Tuff-Tag* is made from an abrasion resistant polymer that will remain legible far longer than any leather or vinyl tag. In fact, *Tuff-Tags* will consistently outlast the useful life of slings.

SAFETY BULLETIN

A safety bulletin is packaged with every web sling from *Lift-All.* The bulletin includes:

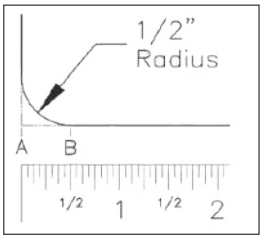
- Inspection and removal from service criteria.
- Environmental considerations.
- Inspection frequency.
- Effect of angles.
- Rigging configuration.
- Sling protection.
- Exposure of slings to edges.



⚠ WARNING

Exposure of web slings to edges with a radius that is too small can cause sling failure and loss of load

Edges do not need to be sharp to cause failure of the sling. The table shows the minimum allowable edge radii suitable for contact with unprotected webbing slings. Chamfering or cutting off edges is not an acceptable substitute for fully rounding the edges to the minimum radius. Slings can also be damaged from contact with the edges or burrs at the sling connections.

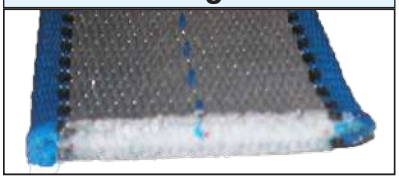
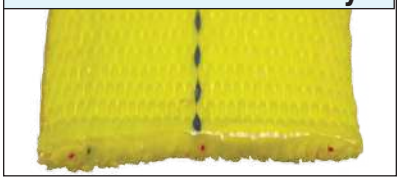
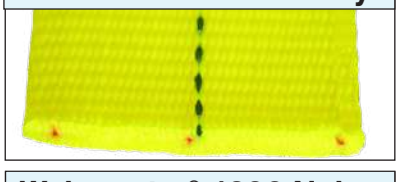
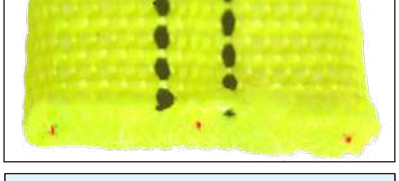


Measure the edge radius. The radius is equal to the distance between points A and B.

Minimum edge radii suitable for contact with unprotected web slings.		
Number of Sling Web Plies	**Minimum Edge Radii (in.)**	
1 Ply	.18	3/16
2 Plies	.50	1/2
3 Plies	.75	3/4
4 Plies	1.00	1

For further information on minimum edge radii, contact *Lift-All*.

LIFT-ALL WEB SELECTOR

	Approx. Thickness	Single-Ply Capacity Per Inch of Width	Material	Identifier	Applications*
***Tuff-Edge*® III** 	**3/16"**	1600-lbs.	Polyester	Blue **E**dge **D**amage **L**imit (EDL) Blue center stripe Silver surface	Daily use under good to rugged lifting conditions. 30% more resistant to edge damage than our *Tuff-Edge* II webbing.
***Webmaster*® 1600 Poly** 	**3/16"**	1600-lbs.	Polyester	Blue center stripe	Daily use under good to moderate lifting conditions. Polyester stretches less for better load control, reduced abrasion.
***Webmaster*® 1600 Nylon** 	**3/16"**	1600-lbs.	Nylon	No center stripe	Daily use under good to moderate lifting conditions. Nylon stretches more to help avoid shock loading.
***Webmaster*® 1200 Poly** 	**1/8"**	1200-lbs.	Polyester	Blue center stripe Black yarn one edge	Light use under good lifting conditions. Polyester stretches less for better load control, reduced abrasion.
***Webmaster*® 1200 Nylon** 	**1/8"**	1200-lbs.	Nylon	No center stripe Black yarn on one edge	Light use under good lifting conditions. Nylon stretches more to help avoid shock loading.
***Dura-Web*™ 2000** 	**5/16"**	2000-lbs.	Nylon	Two black center stripes	Heavy use under moderate to rugged lifting conditions. Abrasion resistant yarns cover entire surface.
***Dura-Web*™ 1000** 	**3/16"**	1000-lbs.	Nylon	One black center stripe.	Daily use under moderate lifting conditions. Abrasion resistant yarns cover entire surface.

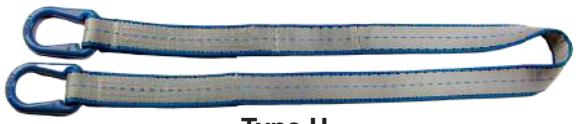
* **⚠ WARNING** Always protect synthetic slings from being cut by corners and edges. See Sling Protection section in this catalog.

STANDARD WEB SLING TYPES

HARDWARE SLINGS

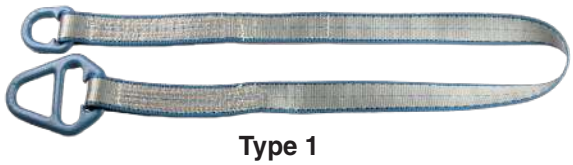
Unilink and *Web-Trap* hardware can help to extend sling life by protecting the webbing from abrasion on rough crane hooks. Hardware can often be reused, lowering sling replacement costs.

Type U (UU) - Has the preferred and economical *Unilink* fitting with *Web-Trap* on each end for use in a vertical, choker or basket hitch. *Unilinks* allow choking from either end to save time and vary wear points.



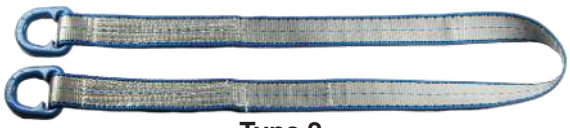
Type U

Type 1 (TC) - Has a *Web-Trap* triangle on one end and choker on the other end. Typical use is in a choker hitch. Can also be used in vertical and basket hitches.



Type 1

Type 2 (TT) - Has a *Web-Trap* triangle on each end. Normally used in a basket hitch, but can also be used in a vertical hitch. Cannot be used as a choker.



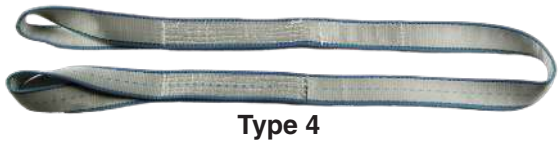
Type 2

EYE / EYE

Type 3 (EE) - Flat Eye slings are very popular and can be used in all three types of hitches. They are easier to remove from beneath the load than sling Types 1, 2 and 4. Type 3 will be supplied as the standard EE sling, unless Type 4 is requested.

Type 3

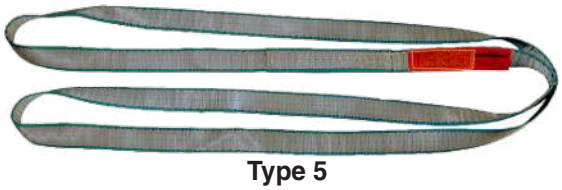
Type 4 (EE) - Twisted Eye slings are similar to Type 3 except the eyes are turned 90°. The eyes of a Type 4 nest easily on the crane hook.



Type 4

ENDLESS

Type 5 (EN) - Endless slings are versatile and the most economically priced. They can be used in all three types of hitches. The sling can be rotated to minimize wear. The sling legs can be spread for improved load balance.



Type 5

REVERSE EYE

Type 6 (RE) - An endless sling with butted edges sewn together to double the sling width. They have reinforced eyes and wear pads on both sides of body and eyes for premium wear resistance.

Type 6

WEB SLING EYE TREATMENTS

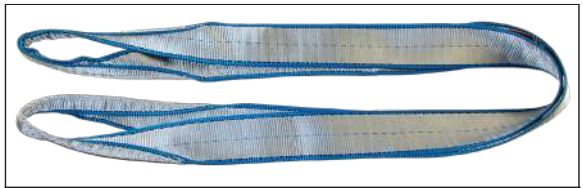
The eyes of web slings are often subjected to the harsh treatment of rough crane hooks. Specialty eye treatments are available to help reduce the wear in that area, thereby extending sling life. The following photos illustrate the more common eye treatments using wear-resistant webbing in various forms. Should you want eye treatment on your eye & eye web slings, please specify using the terminology below.

TYPE 3 – FLAT EYES		TYPE 4 – TWISTED EYES
	Standard Style	
	Lined Bearing Point	
	Fully Lined Eye	
	Wrapped Bearing Point	
	Fully Wrapped Eye	

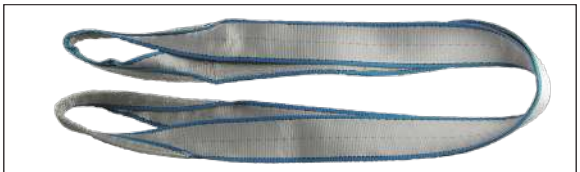
Textured, wear-resistant material is standard for these eye treatments.
Other pad materials are available in the Sling Protection section of this catalog.

Tapering Eyes - As a standard practice, the bearing points of the eyes on Type 3 and Type 4 slings are tapered to accommodate a crane hook on slings 3" and wider. Untapered eyes are available upon request. Type 5 (endless) slings are NOT tapered unless specified on order. *Dura-Web* 2000 slings are NOT tapered in any width.

Type 3 - Flat Eyes



Type 4 - Twisted Eyes



Type 5 Endless (Showing Taper)

ENVIRONMENTAL CONSIDERATIONS

Exposure to sunlight and other environmental factors can result in accelerated deterioration of web slings. The rate of this deterioration varies with the level of exposure and with the thickness of the sling material.

Visible indication of such environmental deterioration can include the following:

- Fading of webbing color.
- Uneven or disoriented surface yarn of the webbing.
- Shortening of the sling length.
- Reduction in elasticity of the sling.
- Accelerated abrasive damage to the surface yarns of the sling.
- Breakage or damage to yarn fibers is often evident by a fuzzy appearance on the web.
- Stiffening of the web.

Anti-Abrasion Treatment

Lift-All webbing is treated for abrasion. Heavy duty treatments are available as a supplemental process for greater protection. Natural, untreated webbing is available upon request.

Elasticity

The stretch characteristics of web slings depends on the type of yarn and the web treatment. Approximate stretch at rated sling capacity:

NYLON		POLYESTER	
Treated	10%	Treated	7%
Untreated	6%	Untreated	3%

TOLERANCES FOR WEB SLINGS

Sling Type	Length Tolerance*
1-Ply	± (1.5" + 1.5% of sling length)
2-Ply	± (2.0" + 2% of sling length)
3-Ply & 4-Ply	± (3.0" + 3% of sling length)

* For web sling widths wider than 6", add 1/2" to these values. For tighter tolerance or matched set lengths, please consult with Customer Service prior to ordering.

Sunlight / UV Exposure Service Life

Nylon and polyester web slings possess a limited useful service life due to the degradation caused by exposure to sunlight or other measurable sources of UV radiation.

Lift-All web slings that are regularly exposed to UV radiation should be identified with the date they are placed into service and should be proof-tested to twice their rated capacity every six months.

Lift-All nylon and polyester web slings shall be permanently removed from service when the cumulative UV or outdoor exposure has reached these limits:

- 2 years: 1-Ply and 2-Ply web slings
- 3 years: 3-Ply and 4-Ply web slings

Temperature

Nylon and polyester slings degrade at temperatures above 200°F.

Chemical Environment Data

Many chemicals have an adverse effect on nylon and polyester. The chemical chart below is a general guide only. For specific temperature, concentration and time factors, please consult *Lift-All* prior to purchasing or use.

CHEMICAL	NYLON	POLYESTER
Acids	NO	OK+
Alcohols	OK	OK
Aldehydes	OK	NO
Alkalis	OK	NO
Bleaching Agents	NO	OK
Dry Cleaning Solvents	OK	OK
Ethers	OK	OK
Halogenated Hydro-Carbons	OK	OK
Hydro-Carbons	OK	OK
Ketones	OK	OK
Oils Crude	OK	OK
Oils Lubricating	OK	OK
Soap & Detergents	OK	OK
Water & Seawater	OK	OK
Weak Alkalis	OK	OK

+ Disintegrated by concentrated sulfuric acid.

Prior to sling selection and use, review and understand the General Information section of this catalog.

HOW TO ORDER WEB SLINGS

EE 1 8 02 T F X 12

Sling Type
- **UU** – Type U - *Unilink* Each End
- **TC** – Type 1 - Triangle/Choker
- **TT** – Type 2 - Triangle/Triangle
- **EE** – Type 3 & 4 Eye/Eye
- **EN** – Endless
- **RE** – Reverse Eye
- **WL** – Wide Lift

Sling Length
Use actual pull to pull length (reach) in feet.

'X'

Number of Plies
1, 2, 3 or 4

Web Class
- **1** – *Dura-Web*™ 1000
- **2** – *Dura-Web*™ 2000
- **8** – *Webmaster*® 1600 or *Tuff-Edge*® III
- **6** – *Webmaster*® 1200
- **SH** – Stone Handling

EYE TREATMENTS

Flat Eyes (Type 3)
- **F** – Standard
- **G** – Lined Bearing Point
- **H** – Fully Lined
- **I** – Wrapped Bearing Point
- **J** – Fully Wrapped

Twisted Eyes (Type 4)
- **T** – Standard
- **U** – Lined Bearing Point
- **V** – Fully Lined
- **W** – Wrapped Bearing Point
- **X** – Fully Wrapped

Exceptions: Class 1, 2 and SH slings

TAPERED EYE STANDARDS

Non-Tapered: 1" and 2" wide slings.
Tapered: 3" wider and up, in Class 6 & 8 slings only.

Note: Other treatments can be accommodated. Please specify at time of order.

Web Material
- **T** – *Tuff-Edge*® III
- **D** – Polyester
- **N** – Nylon

Sling Width in inches

Always protect synthetic slings from being cut or damaged by corners, edges and protrusions by using protection sufficient for each application.

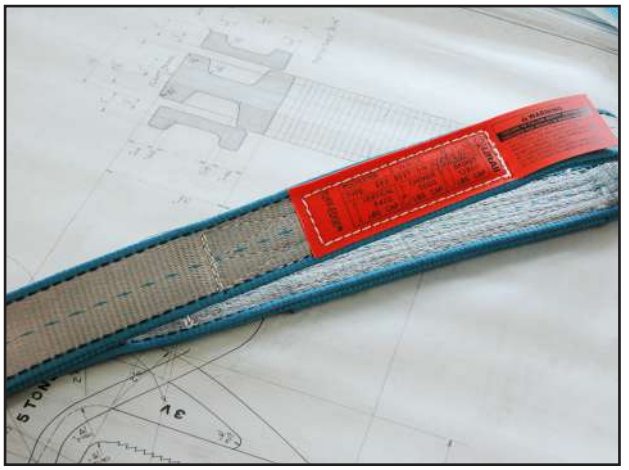
Refer to Sling Protection section in this catalog.

Patent #*10,494,231*

TUFF-EDGE® III

The patented design changes to the body and edge of our new *Tuff-Edge* III translates to a softer web with increased abrasion and edge-cut resistance.

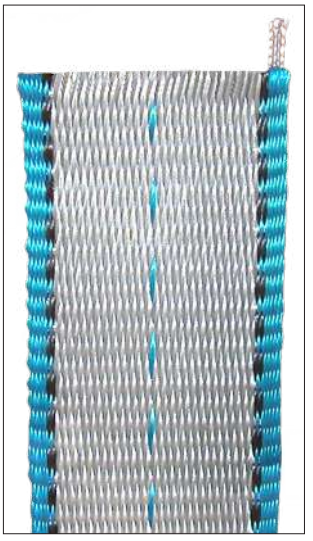
Introducing the Edge Damage Limit (EDL) out-of-service marker. The EDL tool both simplifies the inspection process and also extends the life of the web slings, saving you money. Whenever sling damage is concentrated along the edge of the webbing, the sling may continue to remain in service until the damage has reached the EDL black line marker, assuming the sling is otherwise in good operating condition.



Features and Benefits

- 30% more resistant to edge damage than our *Tuff-Edge* II webbing.
- Tubular edge design with damage-resistant core helps protect the body fibers from cutting, keeping the integrity of the sling intact without compromising its strength.
- Edge Damage Limit (EDL), out-of-service marker aids in sling inspection (refer to TEIII Web Sling Safety Bulletin).
- Soft twill weave body.
- Improved handling characteristics with no coated edge yarns.
- Easy to identify by the blue tubular edges and EDL marker.
- Currently available in 1", 2", 3", and 4" widths.

WEB EDGE CUT PERFORMANCE CHART			
Webbing Design	**Edge Construction**	**Comparative Web Edge Cut Test Performance Rating**	
		Poor	**Superior**
***Tuff-Edge* III**	**Tubular with Reinforced Core**		
***Tuff-Edge* II**	**Polymer**		
***Webmaster*® 1600 Polyester**	**Standard**		



Safety Built-In

WEBMASTER® 1600 NYLON & POLYESTER SLINGS

The Traditional Standard for Heavy Duty Slings

Webmaster 1600 is our most popular web due to strength and service life. This versatile workhorse can be designed in many configurations for a wide variety of lifting applications. Many industries appreciate the value versus strength capabilities of this product line, making it the go-to solution.

Features and Benefits

Promotes Safety

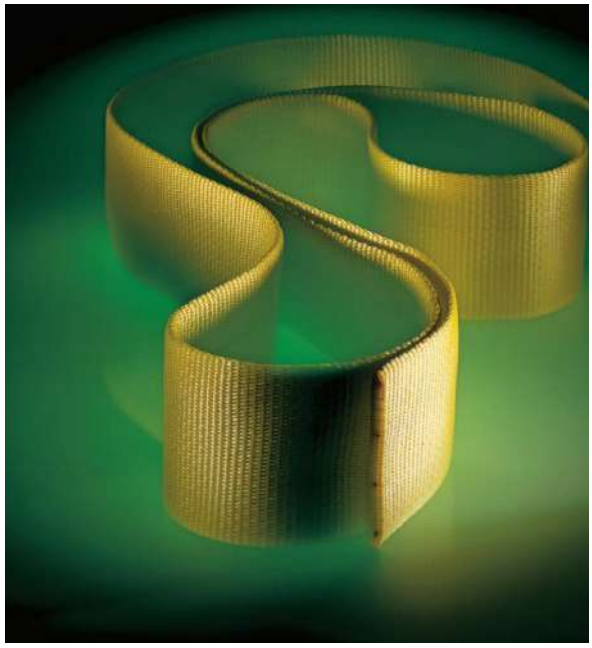
- Red core yarn warning system aids in the inspection process.
- *Tuff-Tag*™ provides serial numbered identification for traceability.
- Proven reliability.

Saves Money

- Yellow treatment for abrasion resistance and extended sling life.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

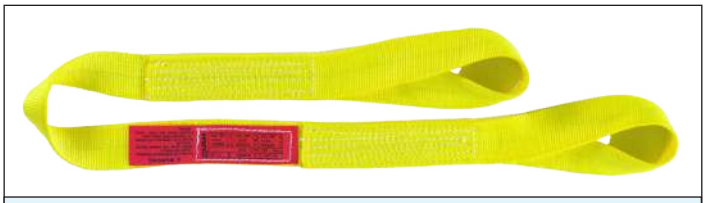
Saves Time

- Polyester web is identified by single blue surface stripe.

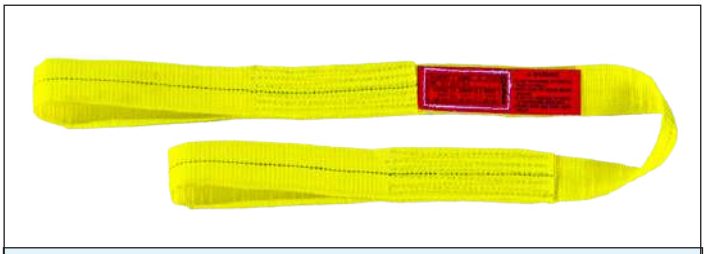


Always protect synthetic slings from being cut or damaged by corners, edges, and protrusions by using protection sufficient for each application.

Refer to Sling Protection section in this catalog.



NYLON – TYPE 4 TWISTED EYES



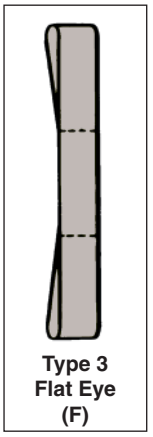
POLYESTER – TYPE 3 FLAT EYES

For details on characteristics of nylon versus polyester webbing, see 'Environmental Considerations' in this section.

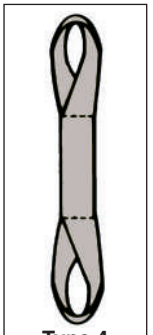
TUFF-EDGE® III & WEBMASTER® 1600 POLYESTER SLINGS

EYE / EYE SLINGS

Ply	*Tuff-Edge* III Part No.**	Web Width (i n.)	Rated Capacity* (lbs.)			*Webmaster* 1600 Part No.***
			Vertical	Choker	V. Basket	
One Ply	EE1801TF	1	1,600	1,280	3,200	EE1801DF
	EE1802TF	2	3,200	2,500	6,400	EE1802DF
	EE1803TF	3	4,800	3,800	9,600	EE1803DF
	EE1804TF	4	6,400	5,000	12,800	EE1804DF
	EE1806TF	6	9,600	7,700	19,200	EE1806DF
	EE1808TF	8	12,800	10,200	25,600	EE1808DF
	EE1810TF	10	16,000	12,800	32,000	EE1810DF
	EE1812TF	12	19,200	15,400	38,400	EE1812DF
Two Ply	EE2801TF	1	3,200	2,500	6,400	EE2801DF
	EE2802TF	2	6,400	5,000	12,800	EE2802DF
	EE2803TF	3	8,800	7,040	17,600	EE2803DF
	EE2804TF	4	11,500	9,200	23,000	EE2804DF
	EE2806TF	6	16,500	13,200	33,000	EE2806DF
	EE2808TF	8	19,200	15,400	38,400	EE2808DF
	EE2810TF	10	22,400	17,900	44,800	EE2810DF
	EE2812TF	12	26,900	21,500	53,800	EE2812DF
Three Ply	EE3801TF	1	4,100	3,300	8,200	EE3801DF
	EE3802TF	2	8,300	6,600	16,600	EE3802DF
	EE3803TF	3	12,500	10,000	25,000	EE3803DF
	EE3804TF	4	16,000	12,800	32,000	EE3804DF
	EE3806TF	6	23,000	18,400	46,000	EE3806DF
	EE3808TF	8	30,700	24,500	61,400	EE3808DF
	EE3810TF	10	36,800	29,400	73,600	EE3810DF
	EE3812TF	12	44,000	35,200	88,000	EE3812DF
Four Ply	EE4801TF	1	5,000	4,000	10,000	EE4801DF
	EE4802TF	2	10,000	8,000	20,000	EE4802DF
	EE4803TF	3	14,900	11,900	29,800	EE4803DF
	EE4804TF	4	19,800	15,800	39,600	EE4804DF
	EE4806TF	6	29,800	23,800	59,600	EE4806DF
	EE4808TF	8	39,700	31,700	79,400	EE4808DF
	EE4810TF	10	49,600	39,600	99,200	EE4810DF
	EE4812TF	12	59,500	47,600	119,000	EE4812DF



Type 3 Flat Eye (F)



Type 4 Twisted Eye (T)

** Replace the "F" with a "T" for Twisted Eyes (Type 4). *** Replace the "D" with an "N" to order nylon.
Eyes on Type 3 and Type 4 slings are tapered at 3" and wider, unless otherwise specified.

EYE LENGTH – APPLIES TO ALL SLINGS

Plies of Web	Sling Width (in.)							
	1	2	3	4	6	8	10	12
1	8.5	10	11	12	16	20	24	24
2	8.5	10	11	12	16	20	24	24
3	10.0	12	14	16	18	24	24	24
4	10.0	12	14	16	18	24	24	24

* **⚠ WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

TUFF-EDGE® III & *WEBMASTER*® 1600 POLYESTER SLINGS

ENDLESS

Ply	*Tuff-Edge* III Part No.	Web Width (in.)	Rated Capacity* (lbs.)			*Webmaster* 1600 Part No.**
			Vertical	Choker	V. Basket	
One Ply	EN1801T	1	3,200	2,500	6,400	EN1801D
	EN1802T	2	6,400	5,000	12,800	EN1802D
	EN1803T	3	8,800	7,040	17,600	EN1803D
	EN1804T	4	11,500	9,200	23,000	EN1804D
	EN1806T	6	16,500	13,200	33,000	EN1806D
	EN1808T	8	19,200	15,400	38,400	EN1808D
	EN1810T	10	22,400	17,900	44,800	EN1810D
	EN1812T	12	26,900	21,500	53,800	EN1812D
Two Ply	EN2801T	1	6,200	4,900	12,400	EN2801D
	EN2802T	2	12,400	9,900	24,800	EN2802D
	EN2803T	3	16,300	13,000	32,600	EN2803D
	EN2804T	4	20,700	16,500	41,400	EN2804D
	EN2806T	6	28,600	23,000	57,200	EN2806D
	EN2808T	8	30,700	24,500	61,400	EN2808D
	EN2810T	10	33,600	26,800	67,200	EN2810D
	EN2812T	12	37,600	30,000	75,200	EN2812D
Three Ply	EN3801T	1	8,000	6,400	16,000	EN3801D
	EN3802T	2	16,000	12,800	32,000	EN3802D
	EN3803T	3	21,500	17,200	43,000	EN3803D
	EN3804T	4	28,700	23,000	57,400	EN3804D
	EN3806T	6	40,700	32,500	81,400	EN3806D
	EN3808T	8	46,000	36,800	92,000	EN3808D
	EN3810T	10	51,500	41,200	103,000	EN3810D
	EN3812T	12	59,200	47,300	118,400	EN3812D
Four Ply	EN4801T	1	10,000	8,000	20,000	EN4801D
	EN4802T	2	19,800	15,800	39,600	EN4802D
	EN4803T	3	26,700	21,300	53,400	EN4803D
	EN4804T	4	35,600	28,400	71,200	EN4804D
	EN4806T	6	50,500	40,400	101,000	EN4806D
	EN4808T	8	57,600	46,000	115,200	EN4808D
	EN4810T	10	67,200	53,700	134,400	EN4810D
	EN4812T	12	80,700	64,500	161,400	EN4812D

** Replace the "D" with an "N" to order nylon.
Note: Type 5 (Endless) slings are not tapered unless specified.

Tuflex® is an Alternative …

For 3-Ply and 4-Ply slings wider than 6", *Tuflex Roundslings* should be seriously considered.

***Tuflex* offers increased flexibility, ease of use and lower cost.**

* **⚠ WARNING**

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

DURA-WEB™ NYLON SLINGS

Best in Abrasion Resistance

Available in two strength classes, all *Dura-Web* slings feature premium abrasive resistant yarns covering all surfaces for extended sling life and long term value.

Features and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process.
- Striped webbing helps identify proper capacity.
- *Tuff-Tag*™ provides serial numbered identification for traceability.

Saves Money

- Abrasion resistant fibers cover both faces and edges for greater sling life.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

Saves Time

- Easily identified by stripes.

DURA-WEB 2000

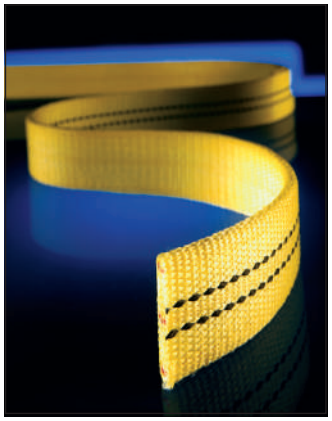
Two black stripes: 2,000-lbs. per inch of width. 25% stronger than other webbing.

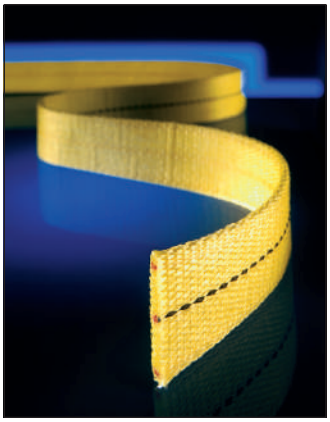
The strongest abrasion resistant sling available.

Dura-Web 2000 slings cannot have tapered eyes.

Dura-Web slings meet or exceed OSHA and ASME B30.9 requirements.

Available in 1", 2", and 3" widths.





DURA-WEB 1000

One black stripe: 1,000-lbs. per inch of width.

The only light-duty web sling with an abrasive resistant surface.

Wider bearing surface per capacity, helps protect load surface.

Dura-Web slings meet or exceed OSHA and ASME B30.9 requirements.

Available in 1" and 2" widths.

Ply	Part Number	Web Width (in.)	Rated Capacity (lbs.) Vertical	Choker	V. Basket
			Type U		
One Ply	UU1202N UU1203N	2 3	4,000 6,000	3,200 4,800	8,000 12,000
Two Ply	UU2202N UU2203N	2 3	8,000 10,800	6,400 8,600	16,000 21,600
			Type 3 – (F)	Type 4 – (T)	
One Ply	EE1201NF EE1202NF EE1203NF	1 2 3	2,000 4,000 6,000	1,600 3,200 4,800	4,000 8,000 12,000
Two Ply	EE2201NF EE2202NF EE2203NF	1 2 3	4,000 8,000 10,800	3,200 6,400 8,600	8,000 16,000 21,600
			Type 5		
One Ply	EN1201N EN1202N EN1203N	1 2 3	4,000 8,000 12,000	3,200 6,400 9,600	8,000 16,000 24,000
Two Ply	EN2201N EN2202N EN2203N	1 2 3	7,800 15,200 20,400	6,200 12,200 16,300	15,600 30,400 40,800

Ply	Part Number	Web Width (in.)	Rated Capacity (lbs.) Vertical	Choker	V. Basket
			Type U		
One Ply	UU1102N	2	2,000	1,600	4,000
Two Ply	UU2102N	2	4,000	3,200	8,000
			Type 3 – (F)	Type 4 – (T)	
One Ply	EE1101NF EE1102NF	1 2	1,000 2,000	800 1,600	2,000 4,000
Two Ply	EE2101NF EE2102NF	1 2	2,000 4,000	1,600 3,200	4,000 8,000
			Type 5		
One Ply	EN1101N EN1102N	1 2	2,000 4,000	1,600 3,200	4,000 8,000
Two Ply	EN2101N EN2102N	1 2	3,900 7,600	3,100 6,100	7,800 15,200

WEBMASTER® 1200 SLINGS

Standard duty *Webmaster*® 1200 is designed as an economical sling for less frequent use.

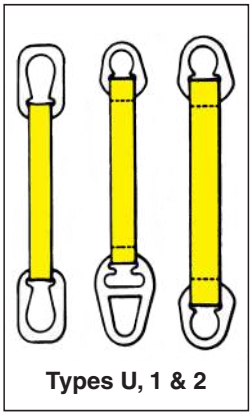
Features and Benefits

Promotes Safety

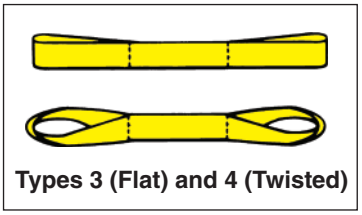
- Red core yarn warning system aids in the inspection process.
- Proven reliability.
- *Tuff-Tag*™ provides serial numbered identification for traceability.

Saves Money

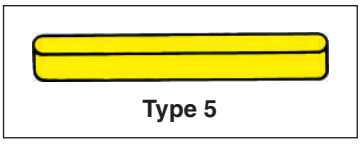
- Economical option for less frequent use.
- Yellow treatment for abrasion resistance and extended sling life.
- *Tuff-Tag* provides required OSHA information for the life of the sling.



Types U, 1 & 2



Types 3 (Flat) and 4 (Twisted)



Type 5

Note: Types 3 and 4 slings are tapered at 3" and wider unless otherwise specified. Type 5 (Endless) slings are NOT tapered unless specified.

* **⚠ WARNING**

Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

HARDWARE SLINGS TYPES U, 1 & 2

Ply	Part Number	Rated Capacity* (lbs.)		
		Vertical	Choker	V. Basket
One Ply	UU1602D	2,400	1,900	4,800
	UU1603D	3,600	2,900	7,200
	UU1604D	4,800	3,800	9,600
	TC1606D	7,200	5,800	14,400
	TT1606D	7,200	n/a	14,400
Two Ply	UU2602D	4,800	3,800	9,600
	UU2603D	6,600	5,280	13,200
	UU2604D	8,600	6,900	17,200
	TC2606D	12,600	10,100	25,200
	TT2606D	12,600	n/a	25,200

EYE / EYE (TYPES 3 & 4)**

One Ply	EE1601DF	1,200	950	2,400
	EE1602DF	2,400	1,900	4,800
	EE1603DF	3,600	2,900	7,200
	EE1604DF	4,800	3,800	9,600
	EE1606DF	7,200	5,800	14,400
Two Ply	EE2601DF	2,400	1,900	4,800
	EE2602DF	4,800	3,800	9,600
	EE2603DF	6,600	5,280	13,200
	EE2604DF	8,600	6,900	17,200
	EE2606DF	12,300	9,840	24,600
Three Ply	EE3601DF	3,500	2,800	7,000
	EE3602DF	7,000	5,600	14,000
	EE3603DF	9,400	7,500	18,800
	EE3604DF	12,000	9,600	24,000
	EE3606DF	18,000	14,400	36,000
Four Ply	EE4601DF	4,200	3,400	8,400
	EE4602DF	8,000	6,400	16,000
	EE4603DF	12,000	9,600	24,000
	EE4604DF	16,000	12,800	32,000
	EE4606DF	23,500	18,800	47,000

**Replace the "F" with a "T" for Twisted Eyes

ENDLESS (TYPE 5)

One Ply	EN1601D	2,400	1,900	4,800
	EN1602D	4,800	3,800	9,600
	EN1603D	6,500	5,200	13,000
	EN1604D	8,600	6,900	17,200
	EN1606D	12,200	9,800	24,400
Two Ply	EN2601D	4,800	3,800	9,600
	EN2602D	9,600	7,700	19,200
	EN2603D	11,700	9,400	23,400
	EN2604D	15,500	12,400	31,000
	EN2606D	22,500	18,000	45,000
Three Ply	EN3601D	6,200	4,900	12,400
	EN3602D	12,500	10,000	25,000
	EN3603D	16,300	13,000	32,600
	EN3604D	20,600	16,400	41,200
	EN3606D	29,300	23,400	58,600
Four Ply	EN4601D	7,700	6,200	15,400
	EN4602D	15,500	12,400	31,000
	EN4603D	20,800	16,600	41,600
	EN4604D	26,600	21,200	53,200
	EN4606D	37,800	30,200	75,600

REVERSE EYE SLINGS

The Reverse Eye Sling is a modified endless sling, reinforced and protected on all sides. It's the most rugged and versatile of all web slings. The sling incorporates premium wear-resistant material for protection on all surfaces.

Features and Benefits

Promotes Safety

- Superior choke hitch performance grips load securely.
- Reinforced eyes improve strength.
- The red core yarn warning system aids in the inspection process.
- *Tuff-Tag*™ provides serial numbered identification for traceability.

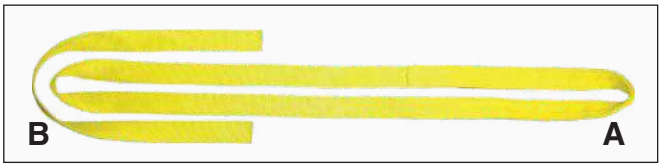
Saves Money

- An additional wear-resistant layer offers superior abrasion resistance.
- Reversible eyes reduce wear and increase sling life.
- Top grade slings using *Tuff-Edge*® webbing are armored on all four sides resulting in the toughest web sling available.

Saves Time

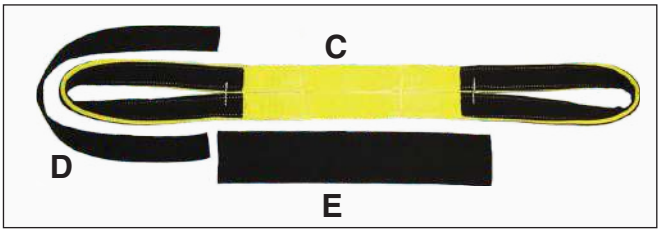
- Eyes nest well on crane hook for easy rigging.
- Flat eye construction is available to facilitate removal from under loads.

The Reverse Eye sling is not just an endless sling with wear pads.



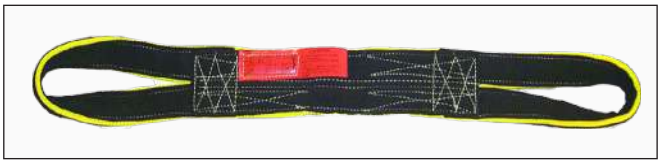
Single Ply Endless with Reinforced Eyes

A. Extended web length makes 2-Ply eyes.
B. Reinforcing web piece sewn-on to make 2-Ply eye.



Add wear pads to both sides of body and eyes

C. Single Ply Endless sling with butted sides.
D. Texturized wear pads on both sides of eyes.
E. Texturized wear pads sewn on both sides of body.



Completed RE sling may be a 1, 2 or 3 ply endless sling with reinforcing webbing for each loop, and texturized wear pad on each side of eyes and sling body.

Heavy-Duty RE Slings: *Tuff-Edge*® Web						Standard-Duty RE Slings: *Webmaster*® 1200					
Ply	Part Number	Rated Capacity* (lbs.)			Sling Thickness (in.)	Sling Width (in.)	Eye Length (in.)	Part Number	Rated Capacity* (lbs.)			Sling Thickness (in.)
		Vertical	Choker	V. Basket					Vertical	Choker	V. Basket	
One Ply	RE1802T	4,500	3,600	9,000	5/16	2	9	RE1602N	3,600	2,900	7,200	1/4
	RE1804T	7,700	6,200	15,400	5/16	4	12	RE1604N	6,800	5,400	13,600	1/4
	RE1806T	11,000	8,800	22,000	5/16	6	15	RE1606N	8,000	6,400	16,000	1/4
Two Ply	RE2802T	6,500	5,200	13,000	1/2	2	9	RE2602N	5,200	4,200	10,400	3/8
	RE2804T	13,000	10,400	26,000	1/2	4	12	RE2604N	10,500	8,400	21,000	3/8
	RE2806T	20,000	16,000	40,000	1/2	6	15	RE2606N	14,400	11,500	28,800	3/8
Three Ply	RE3804T	16,400	13,100	32,800	11/16	4	14	RE3604N	14,000	11,200	28,000	1/2
	RE3806T	25,500	20,400	51,000	11/16	6	18	RE3606N	20,000	16,000	40,000	1/2

Reverse eye slings using *Webmaster*® 1600 webbing are available by special order.

* **⚠ WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

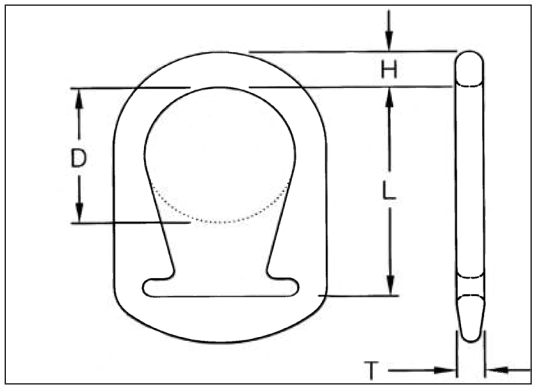
UNILINK™ SLINGS

Unilink Web Sling Hardware

Unilinks are a forged, high carbon steel fitting and functions as both a triangle and choker.

Features and Benefits

- Forged steel for strength and reliability.
- Smooth rounded profile helps protect sling, worker, and load.
- Can be re-webbed to reduce cost.
- Powder-coated finish for longer life.
- *Unilinks* cost less than triangle/choker combinations.
- Large crane hook opening speeds rigging.
- *Web-Trap* feature keeps web aligned on hardware.
- Functions both as a triangle and a choker, allowing you to choke from either end.



Unilink Hardware Specifications

Web Width (in,)	Dimensions (in.)				Weight (in.)
	L	D	H	T	
2	3.69	2.0	0.69	0.56	1.1
3	5.06	3.0	0.88	0.63	2.4
4	6.19	4.0	1.00	0.75	4.0

Avoid contact of hardware with load edges.
***Unilink* has the same rated capacities as TT or TC slings.**

Forged Aluminum Triangles and Chokers

Aluminum is severely degraded by alkali, caustic environments, acids and salt water.

Aluminum Triangles and Chokers are available but may only be used with single-ply web slings within the rated capacities shown in the table. They should not be used with *Dura-Web* 2000 webbing.

Forged from aircraft aluminum, this tough alloy is stronger than mild steel. Aluminum has the advantages of being lightweight, non-sparking and does not rust.

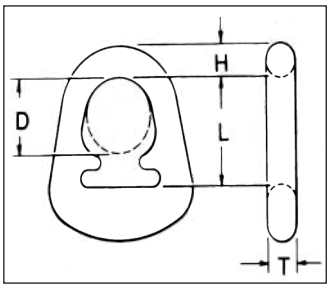
Note: Aluminum triangles and chokers ***DO NOT*** offer the advantages of the *Web-Trap* feature. Aluminum fittings are not as durable and cost more than steel.

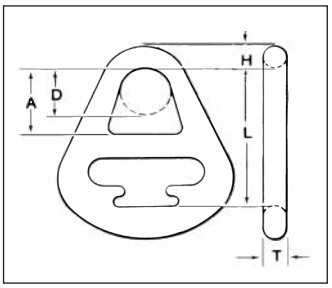
WEB SLING HARDWARE

WEB-TRAP™ STEEL SLING HARDWARE – TRIANGLES and CHOKERS

A significant improvement in triangle/choker design, *Web-Trap* fittings feature positive web capture to eliminate web slippage. These fittings are manufactured from alloy steel for lighter sling weight and a powder-coated finish to inhibit rust.

Webbing can slip with ordinary fittings.





***Web-Trap* locks webbing to center of hardware.**

ALLOY STEEL FOR 1-PLY & 2-PLY SLINGS

***Web-Trap* Triangles**

Web Width	Dimensions (in.)				Weight (lbs.)
	L	D	T	H	
*2"	2.38	1.75	.56	0.63	1.0
*3"	3.44	2.00	.50	0.75	1.9
*4"	4.13	2.38	.50	0.81	2.8
6"	5.56	3.13	.50	1.06	6.3

***Web-Trap* Chokers**

Web Width	Dimensions (in.)					Weight (lbs.)
	L	A	D	T	H	
*2"	5.00	2.44	1.75	.56	0.69	1.9
*3"	6.25	3.38	2.00	.50	0.75	3.6
*4"	7.00	4.00	2.38	.50	0.81	5.1
6"	8.88	4.75	3.13	.50	1.06	12

*** *Unlink* is standard fitting - Triangle and chokers available on special order only.**

ALLOY STEEL FOR 1-PLY SLINGS

***Web-Trap* Triangles**

Web Width	Dimensions (in.)				Weight (lbs.)
	L	D	T	H	
8"	6.50	4.0	.50	1.25	8
10"	8.25	5.0	.75	1.44	16
12"	8.75	5.5	.75	1.75	20

***Web-Trap* Chokers**

Web Width	Dimensions (in.)					Weight (lbs.)
	L	A	D	T	H	
8"	11.25	7.50	4.00	.50	1.44	16
10"	12.88	8.25	5.00	.75	1.50	28
12"	14.50	10.0	5.50	.75	1.75	40

ALLOY STEEL FOR 2-PLY SLINGS

***Web-Trap* Triangles**

Web Width	Dimensions (in.)				Weight (lbs.)
	L	D	T	H	
8"	6.50	4.0	.75	1.25	12
10"	8.25	5.0	1.0	1.438	21
12"	8.75	5.5	1.0	1.75	27

***Web-Trap* Chokers**

Web Width	Dimensions (in.)					Weight (lbs.)
	L	A	D	T	H	
8"	11.25	7.50	4.0	.75	1.438	25
10"	12.88	8.25	5.0	1.0	1.50	38
12"	14.50	10.0	5.50	1.0	1.75	54

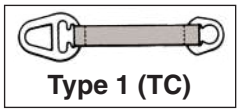
TUFF-EDGE® & WEBMASTER® 1600 POLYESTER SLINGS

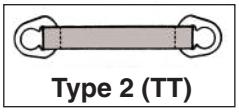
TYPE U - *UNILINK*™ HARDWARE SLINGS

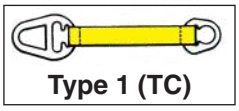
Ply	*Tuff-Edge* III Part Number+	Web Width (in.)	Rated Capacity* (lbs.)			*Webmaster* 1600 Part Number***
			Vertical	Choker	V. Basket	
One Ply	UU1802T UU1803T UU1804T	2 3 4	3,200 4,800 6,400	2,500 3,800 5,000	6,400 9,600 12,800	UU1802D UU1803D UU1804D
Two Ply	UU2802T UU2803T UU2804T	2 3 4	6,400 8,800 11,500	5,000 7,040 9,200	12,800 17,600 23,000	UU2802D UU2803D UU2804D

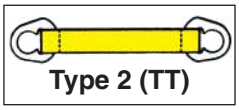
+Replace the UU with TT or TC in part number above if Type 1 or Type 2 is required.

TYPE 1 (TC) & TYPE 2 (TT) *WEB-TRAP* HARDWARE SLINGS









Ply	*Tuff-Edge* III Part Number		Web Width (in.)	Rated Capacity* (lbs.)			*Webmaster* 1600 Part Number***	
	Type 1	Type 2**		Vertical	Choker	V. Basket	Type 1	Type 2**
One Ply	TC1806T TC1808T	TT1806T TT1808T	6 8	9,600 12,800	7,700 10,200	19,200 25,600	TC1806D TC1808D	TT1806D TT1808D
	TC1810T TC1812T TC1816T	TT1810T TT1812T TT1816T	10 12 16	16,000 19,200 25,500	12,800 15,400 20,400	32,000 38,400 51,000	TC1810D TC1812D TC1816D	TT1810D TT1812D TT1816D
Two Ply	TC2806T TC2808T	TT2806T TT2808T	6 8	16,800 22,400	13,400 17,900	33,600 44,800	TC2806D TC2808D	TT2806D TT2808D
	TC2810T TC2812T TC2816T	TT2810T TT2812T TT2816T	10 12 16	28,000 33,600 44,800	22,400 26,800 35,800	56,000 67,200 89,600	TC2810D TC2812D TC2816D	TT2810D TT2812D TT2816D

** Type 2 (TT) cannot be used in a choker hitch.
*** To order nylon, replace the "D" with an "N".
Custom configurations available.

* **WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

SYNTHETIC WEB BRIDLE SLINGS

Bridle Slings are useful when fixed lifting points are available

Features and Benefits

Promotes Safety

- *Tuff-Edge*® III web material is standard; helps prevent sling damage.
- Better load control and balance by using fixed connection points and multiple legs.
- Standard oblong links and hooks are forged from alloy steel for strength and reliability.
- Red core yarn warning system aids in the inspection process.
- Use of hardware prevents cutting and abrasion of sling at bearing points.
- *Tuff-Tag* provides serial numbered identification for traceability.
- Proven reliability.

Saves Money

- Soft web sling legs protect load.
- Endless configuration allows shifting of wear points.
- *Tuff-Edge*® III material extends sling life.
- Sling hooks and links can be re-webbed.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

Saves Time

- Lighter weight and easier to use than chain or wire rope.
- Sling hooks quickly connect to loads having hoist rings or eye bolts.

HOW TO ORDER WEB BRIDLE SLINGS

S O S - EE1801 T X 8

Number of Legs
S = Single
D = Double
T = Triple
Q = Quad

Master Link
O = Oblong

Bottom Attachments
S = Sling Hook
O = Oblong

Web Sling Code

Web Material
T = *Tuff-Edge*
D = Polyester
N = Nylon

'X'

Length of Assembly (Ft.)
Bearing point to bearing point

SYNTHETIC WEB BRIDLE SLINGS

Web Bridle Slings

Part No. For Web Sling Legs	Web Width (in.)	Web Plies	Number of Legs	Rated Capacity* (lbs.)						Alloy Sling Hook	Oblong Link
				Vertical	Choke	Basket	60°	45°	30°	Size	Dia. (in.)
EE1801*	1	1	Single	1,600	1,280	3,200	–	–	–	1-Ton Alloy	1/2
	1	1	Double	–	–	–	2,700	2,200	1,600	1-Ton Alloy	1/2
	1	1	Triple	–	–	–	4,100	3,300	2,400	1-Ton Alloy	3/4
	1	1	Quad	–	–	–	5,500	4,500	3,200	1-Ton Alloy	1
EE2801*	1	2	Single	3,000	2,400	6,000	–	–	–	1-1/2 Ton Alloy	1/2
	1	2	Double	–	–	–	5,100	4,200	3,000	1-1/2 Ton Alloy	3/4
	1	2	Triple	–	–	–	7,700	6,300	4,500	1-1/2 Ton Alloy	3/4
	1	2	Quad	–	–	–	10,300	8,400	6,000	1-1/2 Ton Alloy	1
EE1802*	2	1	Single	3,000	2,400	6,000	–	–	–	1-1/2 Ton Alloy	1/2
	2	1	Double	–	–	–	5,100	4,200	3,000	1-1/2 Ton Alloy	3/4
	2	1	Triple	–	–	–	7,700	6,300	4,500	1-1/2 Ton Alloy	3/4
	2	1	Quad	–	–	–	10,300	8,400	6,000	1-1/2 Ton Alloy	1
EE2802*	2	2	Single	6,000	4,800	12,000	–	–	–	3-Ton Alloy	3/4
	2	2	Double	–	–	–	10,300	8,400	6,000	3-Ton Alloy	1
	2	2	Triple	–	–	–	15,500	12,700	9,000	3-Ton Alloy	1
	2	2	Quad	–	–	–	20,700	16,900	12,000	3-Ton Alloy	1-1/4

Note: Hardware capacities correspond to the appropriate sling capacities. See hardware dimensions in Rigging Hardware section in this catalog. Import hooks with latches are standard. Contact Lift-All for domestic hook and latch options.

* **⚠ WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

WIDE-LIFT SLINGS

Lift-All Wide-Lift slings support the load over a wide area to offer better balance – whether heavy or light. The wide bearing area reduces marring of soft load surfaces. Stiffeners at the base of the eyes deter the body webbing from folding down the middle. Wide-Lift slings are for use in a basket hitch only. The standard web material is *Webmaster*® 1600 nylon; polyester is available upon request.

Features and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process.
- *Tuff-Tag*™ provides serial numbered identification for traceability.
- Improved load stabilization.

Saves Money

- Wide bearing area reduces marring of soft load surfaces.
- Yellow treatment for abrasion resistance and extended sling life.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

ATTACHED EYE WIDE-LIFT

For Light Loads

CONTINUOUS EYE WIDE-LIFT

For Heavy Loads - Constructed from one endless sling with the two body lengths butted and joined side by side.

Ply	Body Width (in.)	Part Number	Rated Capacity* Vertical Basket (lbs.)	Eye Length (in.)	Minimum Sling Length (in.)
One Ply Eye	6	WLA1806N	5,000	6	50
	8	WLA1808N	5,000	8	50
	10	WLA1810N	5,000	10	54
	12	WLA1812N	5,000	12	50
	16	WLA1816N	10,000	14	50
	20	WLA1820N	10,000	16	6.0
	24	WLA1824N	10,000	20	
Two Ply Eye	6	WLA2806N	10,000	10	50
	8	WLA2808N	10,000	10	50
	10	WLA2810N	10,000	12	54
	12	WLA2812N	10,000	12	56
	16	WLA2816N	18,000	12	56
	20	WLA2820N	18,000	18	68
	24	WLA2824N	18,000	18	72
	30	WLA2830N	18,000	22	50
	36	WLA2836N	18,000	27	84
	48	WLA2848N	18,000	36	102

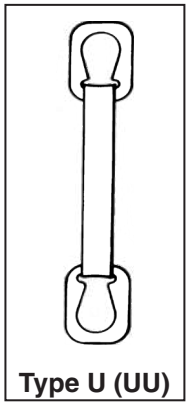
Ply	Body Width (in.)	Part Number	Rated Capacity* Vertical Basket (lbs.)	Eye Length (in.)	Minimum Sling Length (in.)
One Ply	6	WL1806N	15,400	9	40
	8	WL1808N	20,400	12	45
	12	WL1812N	30,800	18	60
	16	WL1816N	38,000	24	72
	20	WL1820N	45,000	30	88
	24	WL1824N	52,000	36	100
	30	WL1830N	45,000	45	120
	36	WL1836N	45,000	54	144
Two Ply	6	WL2806N	28,600	9	40
	8	WL2808N	38,000	12	45
	12	WL2812N	57,200	18	60
	16	WL2816N	75,000	24	72
	20	WL2820N	90,000	30	88
	24	WL2824N	110,000	36	100
	30	WL2830N	90,000	45	120
	36	WL2836N	90,000	54	144

Note:

1. Never use Wide-Lift slings in a choker hitch.
2. *Tuff-Edge*® III may be used for the attached eyes.
3. Custom slings with higher capacities are available.
4. *Tuflex*® slings are also available as Wide-Lift slings.

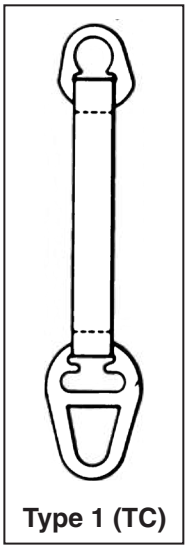
* **⚠ WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

WEB SLING WEIGHTS*



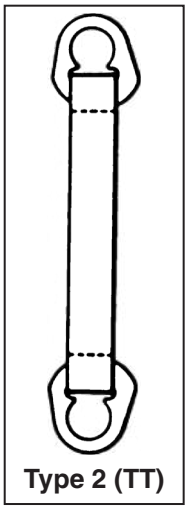
Type U (UU)

Part Number	Minimum Standard Length		Additional Foot
	Ft.	Wt.** (lbs.)	Wt. (lbs.)
UNILINK			
UU1802	3	2.70	0.12
UU1803	3	5.60	0.18
UU1804	4	9.20	0.24
UU2802	3	2.90	0.25
UU2803	3	5.80	0.38
UU2804	3	9.20	0.50



Type 1 (TC)

TRIANGLE / CHOKER			
TC1802	3	3.50	0.12
TC1803	3	6.30	0.18
TC1804	4	9.00	0.24
TC1806	4	21.00	0.36
TC1808	5	27.00	0.48
TC1810	5	48.00	0.60
TC1812	6	65.00	0.72
TC2802	3	3.60	0.25
TC2803	3	6.50	0.38
TC2804	3	9.10	0.50
TC2806	4	21.00	.76
TC2808	4	39.00	1.00
TC2810	5	63.00	1.30
TC2812	5	86.00	1.50

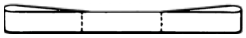


Type 2 (TT)

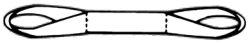
TRIANGLE / TRIANGLE			
TT1802	3	2.60	0.12
TT1803	3	4.60	0.18
TT1804	3	6.70	0.24
TT1806	4	15.00	0.36
TT1808	5	19.00	0.48
TT1810	5	36.00	0.60
TT1812	5	44.00	0.72
TT2802	3	2.70	0.25
TT2803	3	4.80	0.38
TT2804	3	7.00	0.50
TT2806	3	15.00	0.76
TT2808	4	28.00	1.00
TT2810	4	46.00	1.30
TT2812	5	60.00	1.50

* Weights will vary. Published weights are average weights for *Webmaster*® 1600 slings.
** Approximate weight for the minimum standard length as shown.

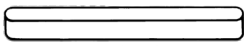
WEB SLING WEIGHTS*



Type 3 - Flat Eye



Type 4 - Twisted Eye



Type 5

EYE / EYE

Part Number	Minimum Standard Length			Additional Foot Weight (lbs.)
	Sling Length (ft.)	Eye Length (in.)	Wt.** (lbs.)	
EE1801	3	8.5	0.40	0.06
EE1802	3	10	0.90	0.12
EE1803	4	11	1.40	0.18
EE1804	4	12	1.90	0.24
EE1806	5	16	3.40	0.36
EE1808	6	20	5.30	0.48
EE1810	7	24	8.00	0.60
EE1812	7	24	9.80	0.72
EE2801	3	7	0.40	0.13
EE2802	3	7	0.90	0.25
EE2803	4	11	1.70	0.38
EE2804	4	12	2.30	0.50
EE2806	5	16	4.90	0.76
EE2808	6	20	6.50	1.00
EE2810	6	24	9.40	1.30
EE2812	7	24	13.0	1.50
EE3801	4	10	1.00	0.20
EE3802	4	12	2.10	0.40
EE3803	5	14	3.70	0.59
EE3804	5	16	5.00	0.79
EE3806	6	18	7.60	1.20
EE3808	7	24	13.00	1.60
EE3810	7	24	16.00	2.00
EE3812	7	24	20.00	2.40
EE4801	4	10	1.10	0.26
EE4802	4	12	2.20	0.53
EE4803	5	14	4.10	0.79
EE4804	5	16	5.50	1.10
EE4806	6	18	8.30	1.60
EE4808	7	24	15.00	2.10
EE4810	7	24	19.00	2.60
EE4812	7	24	23.00	3.20

ENDLESS

Part Number	Minimum Standard Length		Additional Foot Weight (lbs.)
	Sling Length (ft.)	Wt.** (lbs.)	
EN1801	3	0.40	0.12
EN1802	3	0.80	0.24
EN1803	3	1.30	0.36
EN1804	3	1.70	0.48
EN1806	3	2.50	0.72
EN1808	3	3.40	0.96
EN1810	3	4.20	1.20
EN1812	3	5.00	1.40
EN2801	3	0.80	0.25
EN2802	3	1.60	0.50
EN2803	3	2.50	0.76
EN2804	3	3.30	1.00
EN2806	3	4.90	1.50
EN2808	3	6.60	2.00
EN2810	3	8.20	2.50
EN2812	3	9.90	3.00
EN3801	3	1.20	0.38
EN3802	3	2.40	0.76
EN3803	3	3.60	1.10
EN3804	3	4.80	1.50
EN3806	3	7.20	2.30
EN3808	3	9.60	3.00
EN3810	3	12.00	3.80
EN3812	3	14.00	4.50
EN4801	3	1.60	0.52
EN4802	3	3.20	1.00
EN4803	3	4.90	1.60
EN4804	3	6.50	2.10
EN4806	3	9.70	3.10
EN4808	3	13.00	4.20
EN4810	3	16.00	5.20
EN4812	3	19.00	6.20

* Weights will vary. Published weights are average weights for *Webmaster*® 1600 slings.
** Approximate weight for the minimum standard length as shown.

WEB SLING WEIGHTS*

ATTACHED EYE WIDE-LIFT		
Part Number	10-ft. Sling Weight (lbs.)	Additional Foot Weight (lbs.)
WLA1806	3.80	0.36
WLA1808	4.80	0.48
WLA1810	5.60	0.60
WLA1812	6.20	0.72
WLA1816	9.50	1.10
WLA1820	12.00	1.30
WLA1824	14.00	1.60
WLA2806	4.20	0.36
WLA2808	5.40	0.48
WLA2812	7.40	0.72
WLA2816	12.00	1.10
WLA2820	15.00	1.30
WLA2824	16.00	1.60
WLA2830	17.00	2.00
WLA2836	17.00	2.40
WLA2848	20.00	3.20

CONTINUOUS EYE WIDE-LIFT		
Part Number	10-ft. Sling Weight (lbs.)	Additional Foot Weight (lbs.)
WL1806	5.80	0.54
WL1808	7.10	0.66
WL1810	8.40	0.78
WL1812	9.70	0.90
WL1816	12.00	1.10
WL1820	15.00	1.40
WL1824	17.00	1.60
WL1830	23.00	2.20
WL1836	27.00	2.50
WL2806	9.40	0.90
WL2808	12.00	1.10
WL2812	17.00	1.60
WL2816	22.00	2.10
WL2820	27.00	2.60
WL2824	31.00	3.00
WL2830	41.00	4.00
WL2836	48.00	4.60

* Weights will vary. Published weights are average weights using *Webmaster*® 1600 webbing.

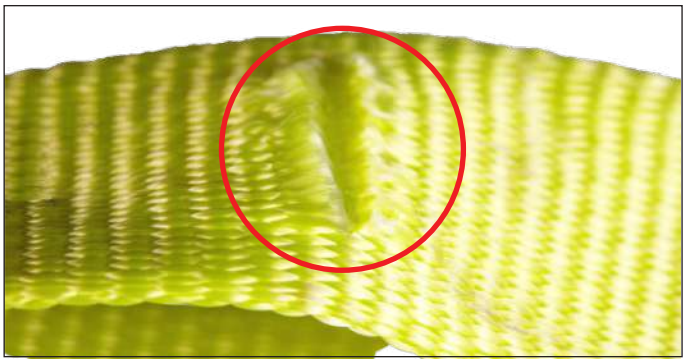
INSPECTION CRITERIA FOR WEB SLINGS

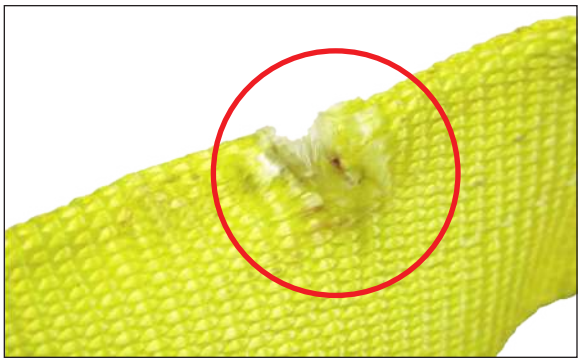
The following photos illustrate some of the common damage that occurs to web slings, indicating that the sling should be taken out of service. For inspection frequency requirements, see the General Information section of this catalog and the safety bulletin provided with each sling.

SURFACE AND EDGE CUTS

WHAT TO LOOK FOR: ***Broken fibers*** of equal length indicate that the sling has been cut by an edge. **Red core warning yarns may or may not be visible and are not required to show before removing slings from service.** It is important to realize that all of the fibers in web slings contribute to the strength of that sling.

TO PREVENT: Always protect synthetic slings from being cut by corners and edges by using cut protection. See the Sling Protection section in this catalog.





HOLES, SNAGS & PULLS

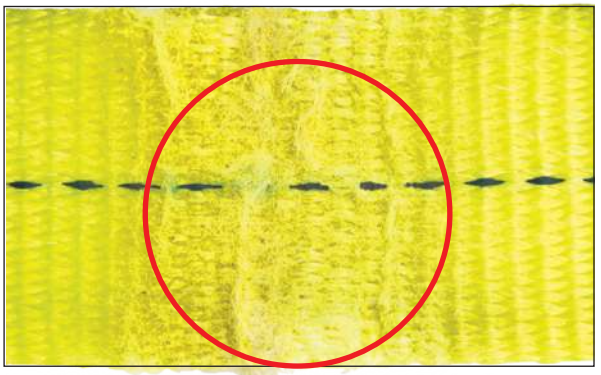
WHAT TO LOOK FOR: ***Punctures*** or areas where ***fibers stand out*** from the rest of the sling surface.

TO PREVENT: Avoid sling contact with protrusions, both during lifts and while transporting or storing. See the Sling Protection section in this catalog.

ABRASIVE WEAR

WHAT TO LOOK FOR: Areas of the sling that look and feel ***fuzzy*** indicate that the fibers have been broken due to contact and movement against a rough surface. Affected areas are usually stained.

TO PREVENT: Never drag slings along the ground. Never pull slings from under loads that are resting on the sling. Use wear pads between slings and rough surface loads. See the Sling Protection section in this catalog.

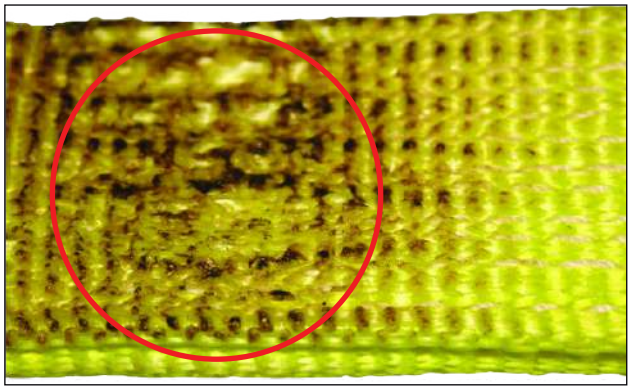


INSPECTION CRITERIA FOR WEB SLINGS

HEAT / CHEMICAL

WHAT TO LOOK FOR: Melted or charred fibers anywhere along the sling. Heat and chemical damage can look similar and they both have the effect of damaging sling fibers and compromising the sling's strength. Look for discoloration and/or fibers that have been fused together and often feel hard or crunchy.

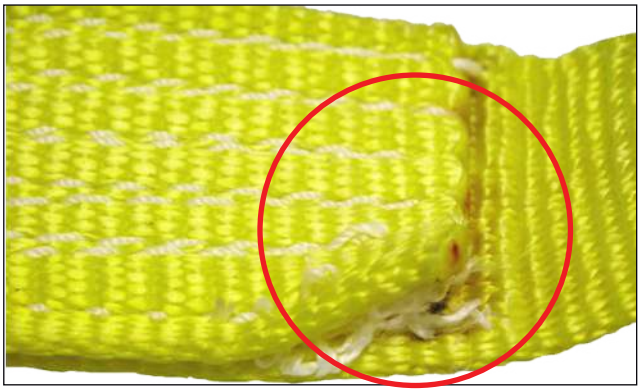
TO PREVENT: Never use nylon or polyester slings where they can be exposed to temperatures in excess of 200°F. Never use nylon or polyester slings in or around chemicals without confirming that the sling material is compatible with the chemicals being used.



BROKEN / WORN STITCHING

WHAT TO LOOK FOR: Loose or broken threads in the main stitch patterns. The stitch patterns in web slings have been engineered to produce the most strength out of the webbing. If the stitching is not fully intact, the strength of the sling may be affected.

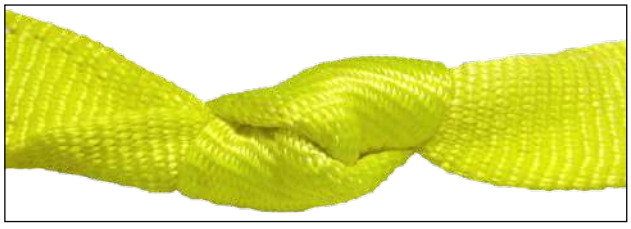
TO PREVENT: Never pull slings from beneath loads where stitch patterns can get hung up or snagged. Never overload the slings or allow the load edge to directly contact the stitch pattern while lifting. Never place a sling eye over a hook or other attachment whose width/diameter exceeds 1/3 of the eye length.



KNOTS

WHAT TO LOOK FOR: Knots are rather obvious problems as shown below. Knots compromise the strength of slings by not allowing all fibers to contribute to the lift as designed. Knots may reduce sling strength by up to 50%.

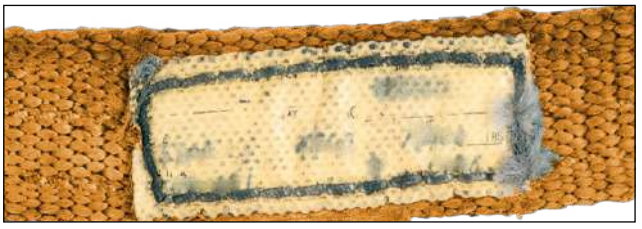
TO PREVENT: Never tie knots in slings and never use slings that are knotted.



ILLEGIBLE OR MISSING TAGS

WHAT TO LOOK FOR: If you cannot find or read all of the information on a sling tag, OSHA requires that the sling shall be taken out of service.

TO PREVENT: Never set loads down on top of slings or pull sling from beneath loads if there is any resistance. Load edges should never contact sling tags during the lift. Avoid paint or chemical contact with tags.



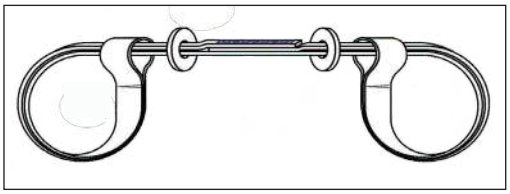
Red Core Yarns are an **additional** aid to warn of dangerous sling damage. All standard *Lift-All* Web Slings have this warning feature. The red core yarns become exposed when the sling surface is cut or worn through the woven face yarns. When red yarns are visible, the sling should be removed from service immediately. For other inspection criteria see OSHA/Manufacturer regulations in the General Information section of this catalog and the safety bulletin provided with each sling.

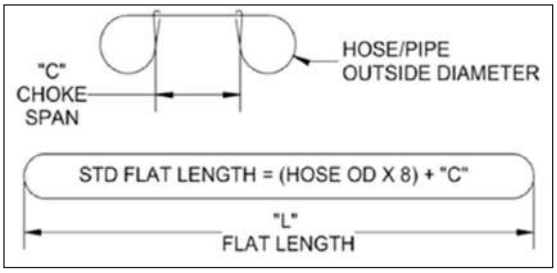
HOSE HALTERS™

Help protect your workers from injury and your equipment from damage

When pipe or hose couplings fail under pressure, *Lift-All Hose Halters* minimize thrashing to reduce equipment damage and personal injury. Suitable for use on pneumatic, water, and hydraulic pipes and hoses, these easy to install straps are made from strong, flexible nylon webbing. Slide the rubber grommets to keep choked eyes snug on the hose. The standard lengths will accommodate pipes and hoses with inside diameters of 1/4" up to 6". Meets both OSHA and Canada OHS requirements for restraining devices on pipe and hose connections.

Available in Four Different Strengths





Hose Halter Selection and Use

When securing hoses and pipe connections, do not exceed the specified pressure ratings.

The length of *Hose Halter*s are ordered as a flat length based on a value equal to 8 times the hose outside diameter (OD), plus the desired span or gap between the choke points and rounded up to standard sizes shown below.

OSHA 1926.603(a)(10) states:

"Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected"

Recommended for Use on the Following Pipe and Hose Inside Diameters										
Part Number	Length (in.)	Color	1/4"	1/2"	3/4"	1"	2"	3"	4"	6"
			Hose Maximum Internal Pressure (PSI) at above hose I.D.							
HH122*	22"	ORANGE	26,000	6,500	2,900	1,650	400	175	100	50
HH130	30"									
HH140	40"									
HH144	44"									
HH164	64"									
HH230*	30"		52,000	13,000	5,800	3,300	750	350	200	90
HH244	44"									
HH264	64"									
HH274	74"									
HH330*	30"	YELLOW	n/a	29,000	13,000	7,300	1,800	820	460	200
HH344	44"									
HH364	64"									
HH430*	30"		n/a	37,000	16,000	9,400	2,300	1,040	580	260
HH444	44"									
HH464	64"									

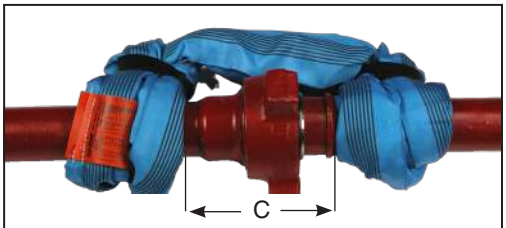
*Minimum Length

ROUNDONE™

The Heavy Duty Solution for Coupling Safety

Help protect your workers from injury and your equipment from damage when pipe or hose couplings fail under pressure.

RoundOne pipe and *Hose Halter*s offer protection for a wide range of pipe and hose sizes and pressures. Suitable for use on pneumatic, water, and hydraulic pipes and hoses. Available sizes cover inside diameters from 1/2" through 8", with pipe/hose pressures up to 85,100 psi. Complies with OSHA, Canada OHS and Work Safe BC requirements for restraining devices on pipe and hose connections.



C = Length between Choke Points

What size do you need?

1. In the chart below, find the row for your **pipe/hose inside diameter (ID).**
2. Read across that row until you come to a **maximum hose pressure** that exceeds the maximum pressure that will go through your pipe/hose.
3. The appropriate halter part number for that assembly is at the top of that column.

PART NO.	HHS3	HHS6	HHS9	HHS12	HHS15	HHS18	HHS24	HHS28	HHS36
Minimum Length	**20"**	**20"**	**24"**	**36"**	**36"**	**36"**	**36"**	**36"**	**44"**
Pipe/Hose ID	**MAXIMUM PIPE / HOSE PRESSURE (PSI)**								
0.50"	23,500	47,900	76,000	n/a	n/a	n/a	n/a	n/a	n/a
0.75"	10,400	21,300	33,700	42,600	53,100	67,400	85,100	n/a	n/a
1"	5,800	11,900	19,000	23,900	29,800	37,900	47,800	57,400	70,100
1.5"	2,600	5,300	8,400	10,600	13,200	16,800	21,200	25,500	31,100
2"	1,470	2,900	4,700	5,900	7,400	9,400	11,900	14,300	17,500
3"	650	1,300	2,100	2,660	3,300	4,200	5,300	6,300	7,700
4"	360	740	1,180	1,490	1,860	2,370	2,900	3,500	4,300
5"	230	470	760	950	1,190	1,510	1,910	2,200	2,800
6"	160	330	520	660	820	1,050	1,320	1,500	1,940
8"	90	180	290	370	460	590	740	800	1,090
Length Adder	**.3**	**.6**	**0.9**	**1.2**	**1.5**	**1.8**	**2.4**	**2.8**	**3.6**

What Length do you need - Order Halters by the Flat Length

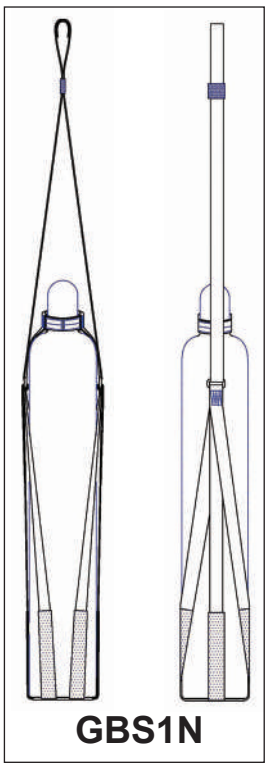
1. Order Halters by the flat length. To determine the minimum length, add the hose diameter (OD) to the length adder (per chart), then multiply by 7 and add the minimum desired length between the choke points (C).
2. Round up to the next even 6" increment (42", 48", 54", 60", etc.).
3. Example: Your 1" ID hose carries 30,000 psi. Using the chart above, the first *Hose Halter* to exceed that rating is an HHS18. The OD of your hose is 1.5", and you want 16" between choke points. The calculation is follows:
4. (1.5 + 1.8) x 7 + 16 = 39.1" (rounded up to 42").
5. The complete part number is **HHS18X42IN.**

Minimum Length =
(Hose OD + Length Adder) X 7 + C

GAS BOTTLE WEB CRADLES

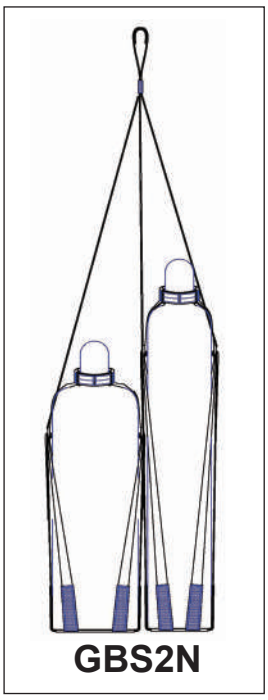
These specialty web cradles allow easy and secure lifting of your gas bottle cylinders into position. Two standard versions are available. **GBS1N** automatically adjusts to accommodate 9" Dia. X 50" H to 13" Dia. X 39" H bottles. **GBS2N** is designed for the convenient tandem lifting of one oxygen and one acetylene bottle as used in most welding operations. Each assembly is rated to lift 1,000-lbs.

- Leather reinforced eyes for extended life.
- Top assembly collar fits around standard valve caps to secure top of cylinder.
- Square rings connect bottom and top assemblies and allow for automatic adjustment.
- Six legs on bottom assembly surround and secure base of cyclinder.
- Abrasion resistant webbing lines both sides of legs at bottom for longer life.
- 2-ply leather base provides additional protection from abrasion and cutting.



GBS1N

The **GBS2N** has the same construction features as the **GBS1N**, but is designed specifically to lift one each of the standard size oxygen and acetylene bottles commonly used in welding operations.



GBS2N

DRUM HANDLING SLINGS

Lift-All drum handling slings provide an easy, inexpensive way to handle steel drums. Available in two styles to suit your needs for handling drums in the vertical or horizontal position.

Vertical Drum Handling Slings			
Part Number	Web Width (in.)	Drum Diameter (in.)	Sling Capacity (lbs.)
STANDARD HEAVY DUTY			
DSV602DX24	2	24	850
DSV602DX30	2	30	850
DSV602DX36	2	36	850
LIGHT DUTY			
DSV601DX24	1	24	300

Standard 55-gallon drum is 24" diameter. Other sizes available.

- Easily lift standing drums for transport.
- Tilt suspended drums to pour from open top or spigot.
- For use with ribbed steel drums, the ratcheting belly band tightens securely below the first rib.
- A wear pad is sewn on the inside of the lifting strap to prevent damage.
- Ratchet tightens and locks securely.
- The free end of ratchet strap is sewn to stay properly threaded.
- Vertical legs are sewn to an adjustable belly band to maintain proper position.

Vertical

Horizontal

Part Number DSH601D

Horizontal Drum Handling Slings

Ideal for the quick and easy lifting of steel drums in the horizontal position.

Part number **DSH601D** uses 1" polyester sling webbing and is rated for 1,500 lbs.

- Strong 1" polyester webbing pulls drum hooks securely into rims at both ends of the drum during the lift.
- One sling fits multiple size drums.
- Easy to hook-up and disconnect.
- Uses a 1/2" diameter oblong link at the top for easy connection to hook.

Note: If used in a chemical environment, contact *Lift-All* for sling material options.

BUCKET, COOLER & TRASH BARREL SLINGS

Improve productivity and help protect your workers from injury with these slings.

Bucket Sling

Lift-All **Bucket Slings** are designed to lift 5-Gallon buckets filled with up to 200 pounds of material.

- Made from 1" wide yellow polyester sling webbing. ***Rated capacity: 200-lbs.***
- Designed for buckets with an 11" diameter base.
- Two belly bands keep bucket secure.
- Overall sling height is 28".

Part No. BS5
Weight: 0.8 lbs.

Custom sizes available.

Cooler Sling

Lift-All **Cooler Slings** will adjust to lift 3, 5 or 10-Gallon water coolers safely and securely to elevated work stations. Connect two or three together to save crane time.

- Made from 2" wide yellow polyester sling webbing. ***Rated capacity: 500-lbs.***
- Three lifting legs hold both cooler and lid securely.
- Buckles on the two belly bands allow for easy rigging, a snug fit and quick connection.
- Extra loop on bottom of sling allows for easy attachment of additional hook top cooler slings.
- Overall sling height is 44".

Hook Top: **#CSH10**: 4.3 lbs.
Eye Top: **#CSE10**: 3.3 lbs.
Custom sizes available.

Trash Barrel Sling

Lift-All **Trash Barrel Slings** are designed to lift 32-Gallon plastic trash barrels. Use your forklift or overhead crane to make easy work of moving these heavy barrels.

- Made from 2" wide yellow polyester sling webbing. ***Rated capacity: 1,000-lbs.***
- Four lifting eyes are tapered and wrapped to help prevent abrasive damage and extend sling life.
- Overall sling height is 51".

Part No. TBS32
Weight: 3 lbs.

Custom sizes available.

FORK SLEEVES

Lift-All fork sleeves protect your loads from damage caused by the sharp edges of forklift forks. These sleeves are made from heavy-duty *Webmaster*® 1600 polyester webbing, easy to install, and long-lasting.

Features and Benefits

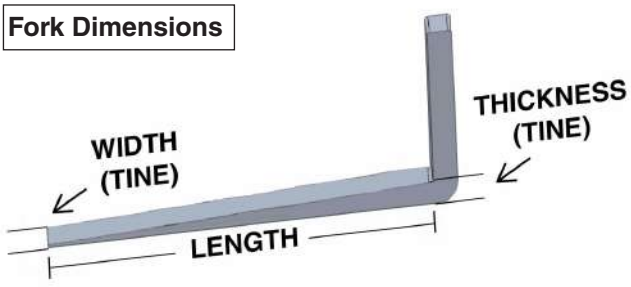
- Soft *Webmaster*® *1600* polyester sling webbing cushions load to avoid damage.
- 12" long rear flap protects the load from vertical member of fork to avoid damage.
- Retaining straps keep sleeve on forks, saving time.
- Quick and easy to install.
- Sewn-in reinforced tip available to prolong life of sleeve, saving you money.

Standard Sleeve - Fork Dimensions			
Part Number*	**Fork Width**	**Fork Length**	**Fork Thickness**
FKSL4A	3" and 4"	48"	1.5"
FKSL5B	5"	54"	1.5" up to 2"
FKSL6D	6"	84"	1.5" up to 4"
FKSL8B	8"	84"	1.5" up to 2"

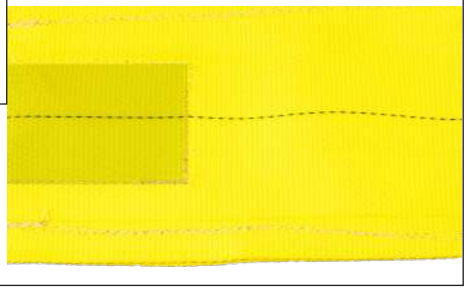
Reinforced Tip Sleeve - Fork Dimensions			
Part Number*	**Fork Width**	**Fork Length**	**Fork Thickness**
FKSLT4A	3" and 4"	48"	1.5"
FKSLT5B	5"	54"	1.5" up to 2"
FKSLT6D	6"	84"	1.5" up to 4"
FKSLT8B	8"	84"	1.5" up to 2"

***Part Numbers are one each - Not a pair.**

Fork Dimensions

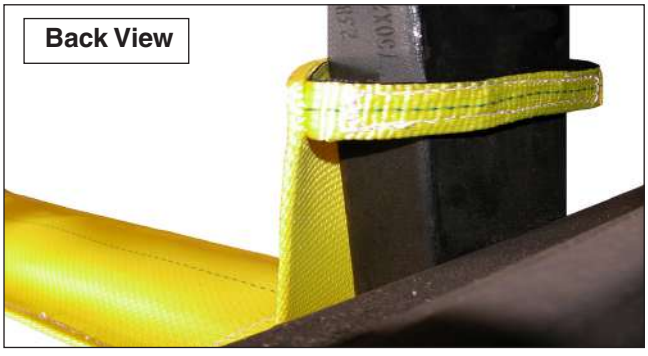


Sewn-in Reinforced Tip



Side View

Back View



GRIPHOOK™

Lift-All's new patent pending *GripHook* design converts your fork truck into an overhead lifting device in a matter of seconds. This is a must for contractors, manufacturing plants, power plants, distribution centers, rental houses, and any other facility using fork trucks.

The self-gripping design allows the *GripHook* to tighten around the fork when a load is applied. The easy to attach *GripHook* does not require any tools to install.

This economical solution is made from high quality synthetic materials saving you money, without compromising lift capacity.

Features And Benefits

- The *GripHook* is a lightweight alternative to metal attachments.
- Quick to install, remove and store.
- Self-gripping to the fork so there's no need to tighten attachment to the fork, saving you time.
- Turns your forklift truck into a hoist in a matter of seconds.
- Allows fork truck to lift and support loads from the bottom of the forks.
- Quick and easy load control.
- 1-Ton and 2-Ton options available.
- A lightweight device with a multitude of uses.

Part Number	Capacity	Description
GH4S-1	1-TON	*GripHook* w/Swivel Hook for 4" Fork
GH5S-1	1-TON	*GripHook* w/Swivel Hook for 5" Fork
GH6S-1	1-TON	*GripHook* w/Swivel Hook for 6" Fork
GH5S-2	2-TON	*GripHook* w/Swivel Hook for 5" Fork
GH6S-2	2-TON	*GripHook* w/Swivel Hook for 6" Fork

GRIP HOOK

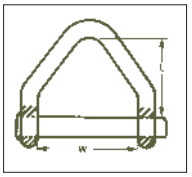
Patent Pending

LIFT-ALL HULL SAVER™ BOAT SLINGS

Polyester web slings designed especially for use with travel lifts to lower and retrieve large boats**

Features and Benefits

- 2-Ply *Hull Savers* are the standard for improved durability and UV resistance.
- *Tuff-Tag* provides required OSHA information for the life of the sling in a marine environment.
- *Lift-All* trained professionals are available for recommended seasonal inspection.
- Optional keel pad lead weights accelerate sinking to required lift depth.
- Quick disconnects are available to improve productivity.
- Extra eye offers versatility.
- Low-stretch polyester webbing helps to avoid scuff damage to hulls**.
- Optional chine & keel pads protect boat and increase sling life.
- Edge guard wear resistant material available to protect sling from abrasion.



Ply	*Hull Saver* Part Number	Width (in.)	[1]Rated Capacity* (lbs.)	Optional Pull Pin Shackles			
				Shackle Part Number	W (in.)	L (in.)	Weight (lbs.)
Two Ply	**HS2804**	4	23,000	**4WSH**	4	3.75	3.2
	HS2806	6	32,600	**6WSH**	6	4.75	6.8
	HS2808	8	38,400	**6WSHHD**			9.8
	HS2810	10	44,800	**6WSHHD**			
	HS2812	12	48,000/53,800[2]	**6WSHHD[2]**			

[1] Rated capacity is the rating of one sling in a vertical basket hitch.

[2] De-rate sling to 48,000 when used with 6" HD Shackle (6WSHHD).

** Nylon webbing is available, but will stretch about 50% more than polyester and should not be used near acids. Polyester should not be used near caustics.

Note: *Lift-All* will manufacture boat slings to fill your particular needs for width, length and capacity.

Safe Operating Practices

- Inspect slings prior to each use and do not use if damaged.
- Never allow people aboard the boat while it is suspended by slings.
- Never work under or near a boat suspended by slings.
- Boats must be properly blocked and stabilized before removing slings.
- *Hull Saver* boat slings are capacity rated for vertical basket lifts. Do not exceed rated capacities.
- When lifting with extra eyes, direction of pull must always be away from center point of the original sling length.

Environmental Considerations

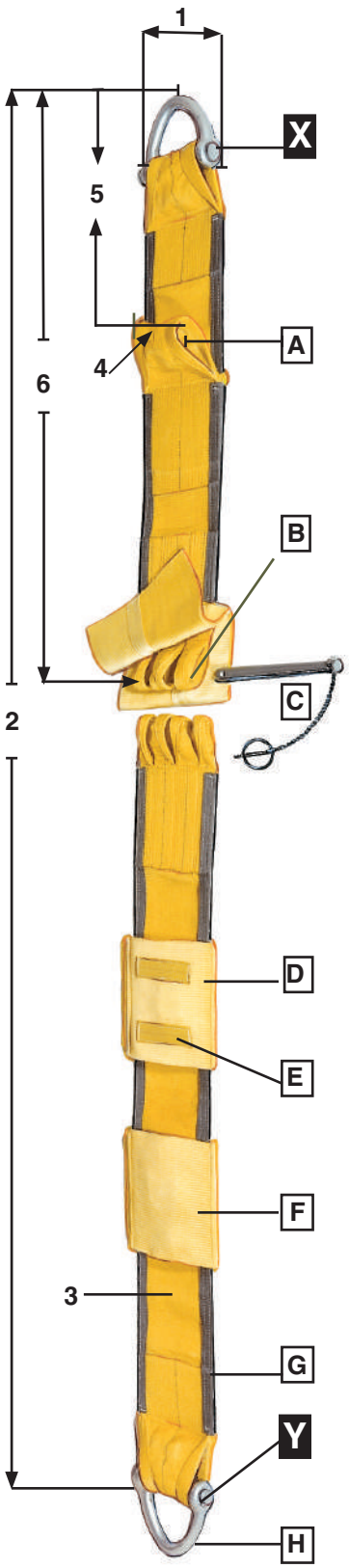
- Nylon and polyester degrade at temperatures above 200°F.
- Prolonged exposure to ultraviolet light adversely affects nylon and polyester. Slings become bleached and stiff when exposed to sunlight or arc welding.
- Many acids, alkali and chemicals have an adverse effect on nylon and polyester. See Chemical Environment Data chart in Web section of this catalog.

Remove from service if any of the following is visible:

- Sling is bleached or stiff due to sunlight exposure.
- Capacity tag is missing or illegible.
- Red core warning yarns are visible.
- Sling shows signs of melting, charring or chemical damage.
- End fittings are excessively pitted, corroded, distorted, cracked or broken.
- Cuts on the face or edge of webbing.
- Holes, tears, snags or crushed web.
- Signs of excessive abrasive wear.
- Broken or worn threads in the stitch patterns.
- Any other visible damage.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart in General Information section.

LIFT-ALL HULL SAVER™ BOAT SLINGS



STANDARD BOAT SLING MEASUREMENTS

1. Sling Width (in.) _____
2. Sling Length (ft.) _____
3. 2-Ply Standard
4. Width of eyes (in.) _____

SLING MATERIAL

Low stretch polyester webbing is standard which helps to reduce chine marring. Nylon webbing is available, but will stretch about 50% more than polyester. Should not be used near acids.

☐ POLYESTER Natural or Treated* (circle one) *Polymer treatment extends sling life.
☐ NYLON Natural or Treated* (circle one)

ACCESSORIES

A. Extra Eyes for shortening sling to lift smaller craft (Measurement #5)

☐ Extra Eye #1: Position _____ ft. from point X or Y
☐ Extra Eye #2: Position _____ ft. from point X or Y
☐ Extra Eye #3: Position _____ ft. from point X or Y

B. Quick Disconnect With Flaps (Measurement #6): ☐
Saves time needed to lower the lift for removing slings from the hooks. Available for 6" or wider only. Protective flap to cover pin is standard.

Position _____ ft. from point X or Y

C. Pin for Quick Disconnect: ☐ This reusable pin is necessary for Quick Disconnect operation. Pin is galvanized for corrosion resistance; GAC wire with retaining clip holds pin in place.

D. Keel Pad: Helps protect the sling from abrasion and cutting. Sliding sleeve style allows sling to adjust to center point without scraping along keel. Pad uses the same webbing as the sling. Standard length is 48".

☐ Sliding Style: Length _____ ft.
☐ Sewn-on Style: Length _____ ft. Starting _____ ft. from X or Y

E. Keel Pad Weights: Lead weights allow for speedy submersion of sling.

F. Chine Pads: Help to protect boat chines, rub rails, and the sling from abrasion damage. Sliding pad can be positioned to accommodate any size and style of boat. May be sewn to sling per your specification. Pad uses the same webbing as the sling. Standard length is 48".

☐ Sliding Style: Quantity _____ Length _____ ft.
☐ Sewn-on Style: Quantity _____ Length _____ ft.
Starting _____ ft. from X / Y

G. Edge Guard: ☐ Special wear resistant webbing applied to sling edges to help protect the sling from abrasion.

H. Pull Pin Shackles: Promotes sling life by protecting eyes of sling. Easier attachment of sling to lifting hook. Galvanized steel for corrosion resistance; reusable.

Quantity _____

STONE HANDLING SLINGS

Special abrasion resistant 4-inch wide nylon webbing for handling stone, concrete and building panels.

Lift-All stone handling slings feature a soft abrasion-resistant wear pad woven onto the load side of the webbing, providing outstanding protection for both the sling and the polished stone surfaces.

Note: Eye/Eye style slings with flat eyes only. Untapered and 12" eye length.

Features and Benefits

Promotes Safety

- Red core yarn warning system aids in the inspection process.
- *Tuff-Tag*™ provides serial numbered identification for traceability.
- Proven reliability.

Saves Money

- Heavy, soft yarns on load side to help protect the sling from abrasion.
- White pile yarns prevent color transfer to load.
- 2-Ply version results in an abrasion resistant face on both sides.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

Saves Time

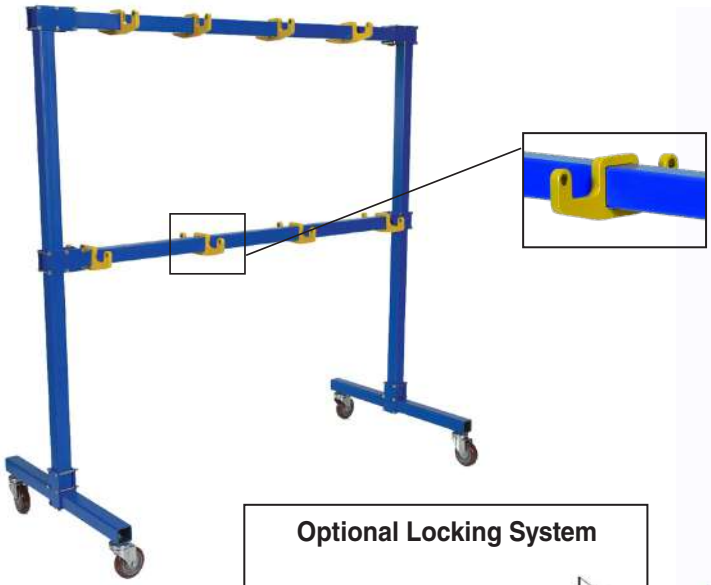
- 2-Ply version with abrasion resistance on both sides.
- Does not require orientation by the rigger.

Ply	Part Number	Rated Capacity* (lbs.)		
		Vertical	Choker	V. Basket
One Ply	UU1SH4N	5,400	4,000	10,800
	EE1SH4N	5,400	4,000	10,800
	EN1SH4N	10,800	8,600	21,600
Two Ply	UU2SH4N	9,400	7,000	18,800
	EE2SH4N	9,400	7,000	18,800
	EN2SH4N	10,800	8,600	21,600

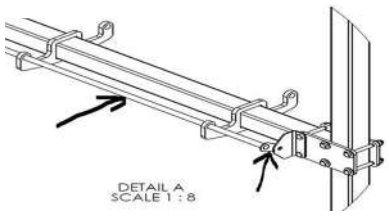
* **⚠ WARNING** Do not exceed rated capacities. Sling tension increases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

GANTRY SLING RACK

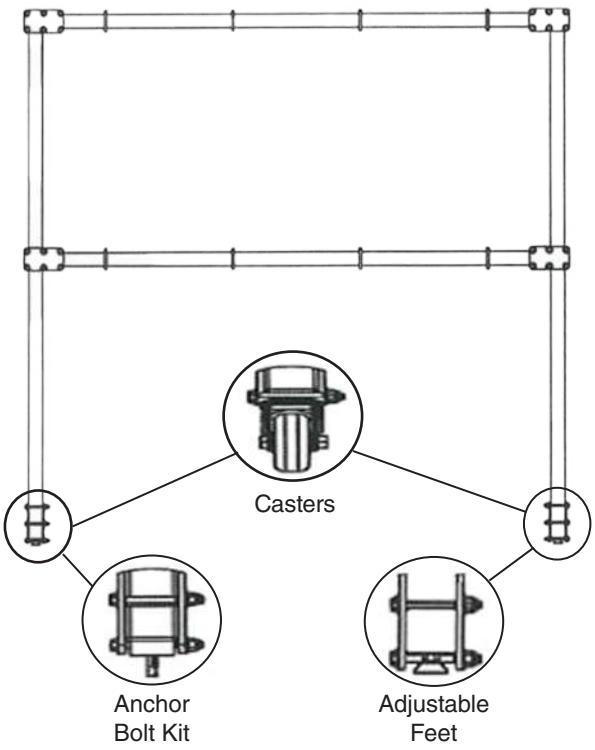
A great addition to any manufacturing or industrial facility



Optional Locking System



SLR-UM-6
Shown with Casters



- Strong steel construction.
- Blue powder-coated toughness.
- Adjustable double hooks - max capacity 150-lbs.
- Eight double hooks are standard.
- Comes with adj. feet, casters, and anchor bolt kit.
- Capacity using adj. feet and anchor bolt kit: 2,000-lbs.
- Capacity using casters: 1,200-lbs.
- Optional: extra hooks and hook lock.

Part Number	Description	Weight
SLR-UM-6	Universal Sling Rack	164-lbs.
SLR-LS	Locking System	24-lbs.
SLR-HK	Extra Set Double Hooks	15-lbs.

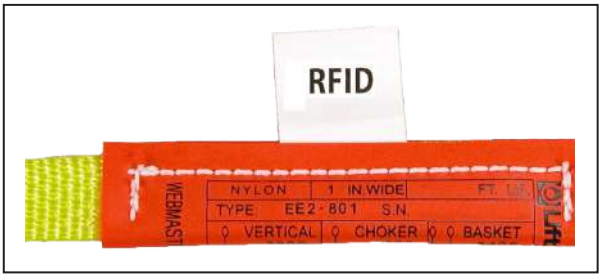
RFID TAGGING

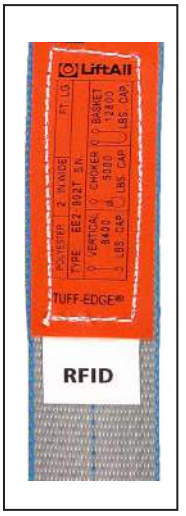
Lift-All offers a high-frequency passive RFID tagging service for new slings.

RFID chips allow end users with RFID readers to electronically track a sling's history to assist with the maintenance, inspection, traceability, and compliance of their slings.

Synthetic slings will have a 5/8" diameter (plastic-coated) high-frequency chip inserted underneath the standard *Tuff-Tag*. The sling will be labeled as containing an RFID chip.

Plastic Coated RFID Chip
Part # RFIDW





Wire rope and chain slings are offered with a high-frequency RFID chip, permanently set into a machined teardrop shaped piece of steel, and attached to the sling with a wire cable.

Wire rope sling placement is between the *Tuff-Tag* and the swaged sleeve. Chain sling attachment is beside the ID tag on the connector link.

Tag Information

RF Protocol:	ISO15693 / ISO10443
Operating Frequency:	HF - 13.56 MHz
IC Type:	SLI Icode 1024 Bit
Memory Config.:	64 UID Bits (16 digits)
Functionality:	Read and Write
Security:	64 Bit Kill Access Password
Read Range:	Less than 1.0"
Quality Guarantee:	100%
IP Classification:	68

Steel Encased RFID Chip

Steel Encased
RFID Chip
Part # RFIDS

Polyester Roundslings

THE *TUFLEX* DIFFERENCE

All ***Lift-All*** slings meet or exceed OSHA and ASME B30.9 standards and regulations

What is a *Tuflex* Roundsling?

A *Tuflex* roundsling is an endless synthetic sling made from a skein of polyester yarn covered by a double-wall tubular jacket. The roundsling body can be compared to sling webbing with the tubular jacket face yarns woven without binder yarns. This allows the core yarns to move independently within the jacket.

Tufhide Jacket on EN360 and Larger Slings

The double-wall *Tufhide*™ jacket (made from bulked nylon fibers) offers better abrasion resistance for our larger capacity *Tuflex* Slings. Additionally, *Tufhide* reduces the heat buildup that can damage other high capacity roundslings when used in a choker hitch.

Features and Benefits

Promotes Safety

- Lightweight to reduce fatigue and strain on riggers.
- Synthetic materials won't cut hands.
- Consistent matched lengths for better multiple sling load control.
- No loss of strength from abrasion to cover.
- *Tuff-Tag* provides serial numbered identification for traceability.
- Low stretch (about 3% at rated capacity).
- Synthetic web resists marring of the load.
- Good for low headroom lifts.
- Conforms to shape of load to grip securely.
- Tubular jacket protects load bearing yarns from UV degradation.
- Red core yarns provide added visual warning of sling damage.
- Color-coding provides positive sling capacity information.

Saves Money

- Double-wall cover for greater sling life.
- The soft cover won't scratch the load surface.
- Conforms to shape of the load for reduced load damage.
- The cover is seamless with no sewn edges, preventing rupture which requires removal from service.
- EN360 and larger *Tuflex* roundslings feature *Tufhide* wear-resistant nylon jacket for extra sling life.
- *Tuff-Tag* provides required OSHA information for the life of the sling.

Saves Time

- Color-coded capacities for quick identification.
- Lightweight and pliable for easy rigging and storage.
- Independent core yarns choke tightly but release easily after use.
- Easy to carry.

⚠ WARNING

Follow temperature and chemical information located in the WEB section of this catalog.

Always protect synthetic slings from being cut or damaged by corners, edges and protrusions by using protection sufficient for each application.

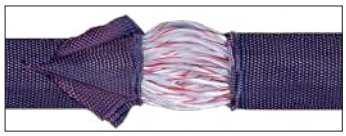
Refer to Sling Protection section in this catalog.

CONSTRUCTION COMPARISONS

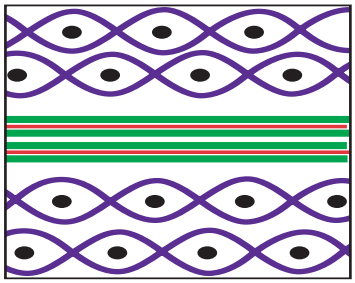
Tuflex Sleeving versus Sling Webbing

Tuflex Sleeving

- Transverse pick yarns position surface yarns and protect core yarns.
- Woven surface yarns protect core yarns, but carry no load.
- Longitudinal core yarns carry 100% of load.
- Red core warning yarns.



***Tuflex* Sleeve (Side View)**

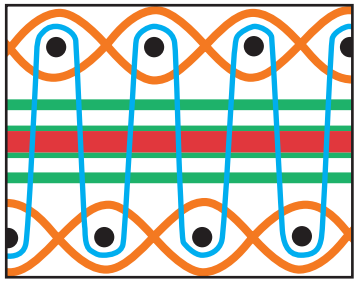


Roundsling construction (as shown above), protects all load carrying core yarns from abrasion with an independent, woven jacket. Replacement is not necessary until the red or white core yarns can be seen through holes in the jacket. When core yarns are visible, the sling must be removed from service. *Tuflex* roundslings provide double-wall protection for extended sling life.

Sling Webbing

- Transverse pick yarns inter-relate with binder yarns.
- Woven surface yarns cover each side and carry a portion of the load.
- Strip of longitudinal core yarns bears majority of load.
- Binder yarns secure the surface yarns to web core yarns.
- Red core warning yarns.

Sling Webbing Side View



Sling webbing (as graphically demonstrated), has its surface yarns connected from side to side, to not only protect the core yarns but to position all surface and tensile yarns to work together to support the load. Wear or damage to sling webbing face yarns cause an immediate strength loss. This is the reason why sling webbing has red core yarns to visually reveal damage and act as a basis for sling rejection.

HOW TO ORDER

1. Specify sling part number found in the charts throughout the *Tuflex* section.
2. Specify sling length in feet (bearing point to bearing point). Refer to footnotes under *Tuflex* tables for specific sling lengths and tolerances.
3. Matched lengths of slings must be specified at time of order.

- Endless and Eye & Eye styles of *Tuflex* are made to a tolerance of ± (1" + 1% of the specified length), and can stretch 3% at rated capacity.
- Braided *Tuflex* length tolerance is ± (2" + 5% of the ordered length with sling at rest). At it's rated capacity, braided *Tuflex* will stretch approximately 9%.

* Prior to sling selection and use, please review and understand the General Information section in this catalog.

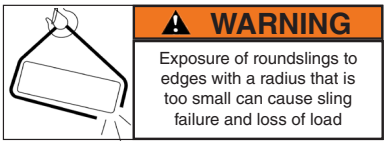
USING *TUFLEX* ROUNDSLINGS

Protect Sling from Damage

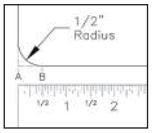
ALWAYS protect roundslings from being cut or damaged by corners, edges and protrusions using protection sufficient for each application.

Do not ignore warning signs of misuse. **Cut marks detected during any sling inspection serve as a clear indication that cut protection is needed.** Refer to Sling Protection section of our catalog.

Exposure of slings to edges



Edges do not need to be sharp to cause failure of the sling. The following table shows the minimum allowable edge radii suitable for contact with unprotected roundslings. Chamfering or cutting off edges is not an acceptable substitute for fully rounding the edges to the minimum radius. Slings can also be damaged from contact with edges or burrs at the sling connection.



Measure the edge radius. The radius is equal to the distance between points A and B.

Minimum Edge Radii Suitable For Contact With Unprotected Polyester Roundslings

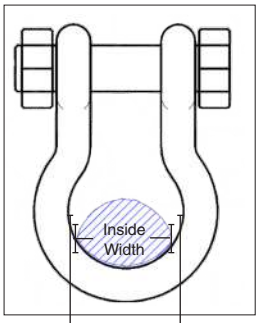
Rated Capacity Vertical (lbs.)	Minimum* Edge Radii (in.)	Sling Width @ Load (in.)
EN30	0.19	1.00
EN60	0.25	1.38
EN90	0.31	1.75
EN120	0.31	1.88
EN150	0.38	2.00
EN180	0.44	2.13
EN240	0.44	2.63
EN280	0.44	3.00
EN360	0.50	3.25
EN460	0.57	3.75
EN600	0.69	4.00
EN800	0.75	4.63
EN900	0.80	5.00
EN1000	0.88	5.25
EN1100	0.92	5.50

* For further information on minimum edge radii, contact *Lift-All* or see WSTDA-RS-1.

Sling Hardware and Connections

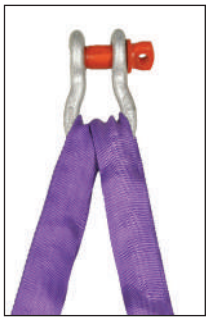
Connection surfaces must be smooth to avoid abrading or cutting slings. Roundslings can be damaged or weakened by excessive compression between the sling and the connection points. Select and use proper connection hardware that conforms to the size requirements listed for choker, vertical, or basket hitches in the charts below.

Contact *Lift-All* (or see WSTDA-RS-1), for information about how to calculate whether a smaller connection size is allowable when tension on a roundsling is less than its capacity.



Effective Contact Width

Single Part (Vertical)



Double Part (Basket)**

Minimum Hardware Dimensions Suitable For Use With *Tuflex* Roundslings

Tuflex Size	Single Part		Double Part**	
	Minimum Stock Diameter (in.)	Minimum Contact Width (in.)	Minimum Stock Diameter (in.)	Minimum Contact Width (in.)
EN30	0.50	1.00	0.57	1.38
EN60	0.62	1.38	0.88	1.88
EN90	0.75	1.75	1.06	2.38
EN120	0.88	1.88	1.25	2.50
EN150	1.00	2.00	1.38	2.88
EN180	1.12	2.13	1.63	3.00
EN240	1.25	2.63	1.63	3.75
EN280	1.25	3.00	1.88	4.25
EN360	1.50	3.25	2.00	4.50
EN460	1.62	3.75	2.38	5.25
EN600	2.00	4.00	2.75	5.63
EN800	2.13	4.63	3.00	6.50
EN900	2.25	5.00	3.25	7.00
EN1000	2.50	5.25	3.50	7.38
EN1100	2.62	5.5	3.75	8.00

** For hardware connected to the body of Eye/Eye *Tuflex* Roundslings, use the double part columns.

For Temperature and Chemical Information refer to the *Environmental Consideration* page in the WEB section of this catalog.

DIRECT CONNECT HOOKS

Direct Connect hooks are the quickest and easiest way to add hooks to *Tuflex* roundslings and web slings at your job site. No tools or extra parts are needed.

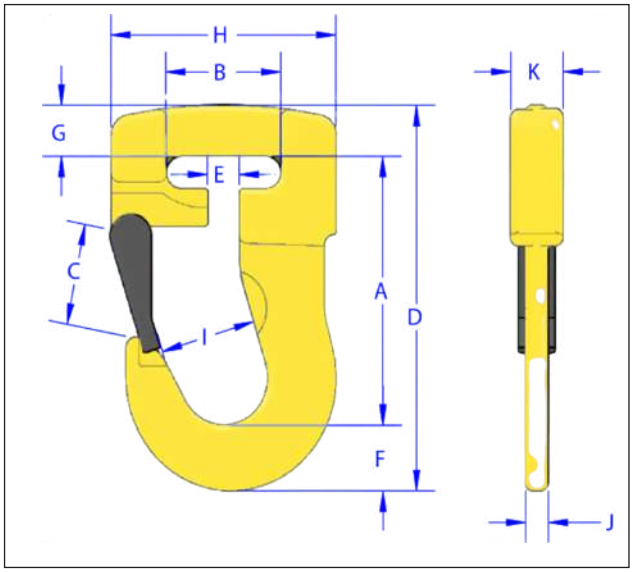
For *Tuflex* slings, just match the color-coded hook to the same color *Tuflex* sling, and you're ready to go. Rated capacities are the same for both the hook and the *Tuflex* roundsling.

Features and Benefits

- Rugged: The alloy steel hook and latch are forged for superior toughness.
- Color-coded hook matches *Tuflex* color and capacity.
- Web-Trap design keeps sling in place, ready to use.
- Four hook sizes to match *Tuflex* sizes EN30 (Purple), EN60 (Green), EN90 (Yellow) and EN150 (Red).
- Can be used with 1" and 2" web slings.
- Quick connections with no tools needed.
- Increases the life of the sling by reducing wear at the bearing point.

Part No.*	Color	Rated Capacity (lbs.)	*Tuflex*	Web Slings		A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	H (in.)	I (in.)	J (in.)	K (in.)	Weight (lbs.)
				Width	Plies												
DCH1	Purple	2,600	EN30	1	1	3.38	1.56	0.91	4.84	0.47	0.81	.67	3.07	1.22	0.70	1.13	1.54
DCH2	Green	5,300	EN60	1	2	4.00	1.75	1.28	5.83	0.75	1.07	.83	3.58	1.57	0.88	1.39	2.65
DCH3	Yellow	8,400	EN90	2	1 & 2	4.63	2.13	1.40	6.89	0.83	1.26	.98	4.45	1.97	1.00	1.76	4.85
DCH4	Red	13,200	EN150	—	—	5.75	2.34	1.83	8.78	1.63	1.60	1.42	5.21	2.34	1.23	2.21	9.90

*** Add an 'L' to end of part number to order replacement latch.**



TUFLEX ENDLESS ROUNDSLINGS

The Most Versatile *Tuflex* Roundsling

Features and Benefits

Maintains all the basic *Tuflex* features plus...

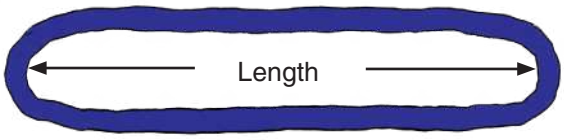
Promotes Safety

- Load stability and balance can be achieved by spreading sling legs.

Saves Money

- Wear points can be shifted to extend sling life.
- The most flexible style of sling.
- Individual slings can be attached together using appropriate hardware (see photo).

How To Measure



TUFLEX Endless Roundslings

Part Number	Color	Rated Capacity* (lbs.) Vertical	Choker	Basket @ 90°	Basket @ 45°	Minimum Length (ft.)	Approximate Measurements Weight (lbs.) (ft.)	Body Diameter Relaxed (in.)	Body Width @ Load (W)(in.)	Minimum Hardware Dia.** (in.)
EN30	Purple	2,600	2,100	5,200	3,600	1.5	0.20	0.63	1.00	0.44
EN60	Green	5,300	4,200	10,600	7,400	1.5	0.30	0.88	1.38	0.63
EN90	Yellow	8,400	6,700	16,800	11,800	3.0	0.52	1.13	1.75	0.75
EN120	Tan	10,600	8,500	21,200	14,000	3.0	0.60	1.13	1.88	0.88
EN150	Red	13,200	10,600	26,400	18,000	3.0	0.76	1.38	2.00	1.00
EN180	White	16,800	13,400	33,600	23,000	3.0	0.87	1.38	2.13	1.13
EN240	Blue	21,200	17,000	42,400	29,000	3.0	1.10	1.75	2.63	1.19
EN280	Orange	25,000	20,000	50,000	35,000	3.0	1.25	1.87	3.00	1.25
EN360	Gray	31,000	24,800	62,000	43,000	3.0	1.70	2.25	3.25	1.50
EN460	Orange	40,000	32,000	80,000	56,000	3.0	2.30	2.50	3.75	1.62
EN600	Brown	53,000	42,400	106,000	74,000	8.0	2.90	2.75	4.00	2.00
EN800	Olive	66,000	52,800	132,000	93,000	8.0	3.40	3.13	4.63	2.13
EN900	Orange	77,000	61,600	154,000	108,000	8.0	3.90	3.42	5.00	2.25
EN1000	Black	90,000	72,000	180,000	127,000	8.0	4.40	3.63	5.25	2.50
EN1100	Orange	100,000	80,000	200,000	140,000	8.0	4.80	4.10	5.50	2.62

** This is the minimum recommended diameter for the connection hardware to be used for a vertical hitch.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

TUFLEX EYE AND EYE

A More Rugged and Durable ***Tuflex*** Roundsling

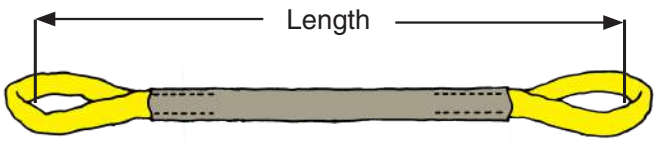
The Eye and Eye Advantage

An additional jacket of texturized, abrasion resistant nylon covers the *Tuflex* body forming two color-coded lifting eyes.

Maintains all the basic *Tuflex* features plus...

- Saves money by extending sling life in abrasive environments.

How To Measure



TUFLEX Eye/Eye Roundslings

Part Number	Eye Color	Rated Capacity (lbs.)* Vertical	Choker	Basket @ 90°	Basket @ 45°	Minimum Length+ (ft.)	Approximate Measurements Weight (lbs./ft.) (ft.)	Body Width @ Load (W) (in.)	Standard Eye Length* (EL) (in.)	Minimum Hardware Dia** (in.)
EE30	Purple	2,600	2,100	5,200	3,600	4	0.25	2.25	10	0.44
EE60	Green	5,300	4,200	10,600	7,400	4	0.35	2.50	10	0.63
EE90	Yellow	8,400	6,700	16,800	11,800	4	0.55	2.50	12	0.75
EE120	Tan	10,600	8,500	21,200	14,000	5	0.66	3.50	12	0.88
EE150	Red	13,200	10,600	26,400	18,000	5	0.81	3.50	14	1.00
EE180	White	16,800	13.400	33,600	23,000	7	0.93	3.50	16	1.13
EE240	Blue	21,200	17,000	42,400	29,000	7	1.20	3.50	16	1.19
EE280	Orange	25,000	20,000	50,000	35,000	7	1.30	4.25	18	1.25
EE360	Gray	31,000	24,800	62,000	43,000	7	1.75	4.50	20	1.50
EE460	Orange	40,000	32,000	80,000	56,000	7	2.35	6.00	22	1.62
EE600	Brown	53,000	42,400	106,000	74,000	8	2.90	7.00	24	2.00
EE800	Olive	66,000	52,800	132,000	93,000	10	3.45	8.00	30	2.13
EE900	Orange	77,000	61,600	154,000	108,000	10	3.95	8.00	32	2.25
EE1000	Black	90,000	72,000	180,000	127,000	12	4.45	9.00	36	2.50
EE1100	Orange	100,000	80,000	200,000	140,000	12	4.85	9.00	36	2.62

** This is the minimum recommended diameter for the connection hardware to be used for a vertical hitch.
+ Shorter lengths available using reduced eye lengths.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

TUFLEX BRIDLE ROUNDSLINGS

Features and Benefits

Promotes Safety

- Bridle slings provide better load control and balance.
- Use of hardware prevents cutting and abrasion of sling at bearing points.

Saves Money

- Reduces damage by protecting load between pick-up point and crane hook.

Saves Time

- Lightweight and pliable for easy rigging and storage.
- Sling hooks quickly connect to loads having hoist rings or eye bolts.

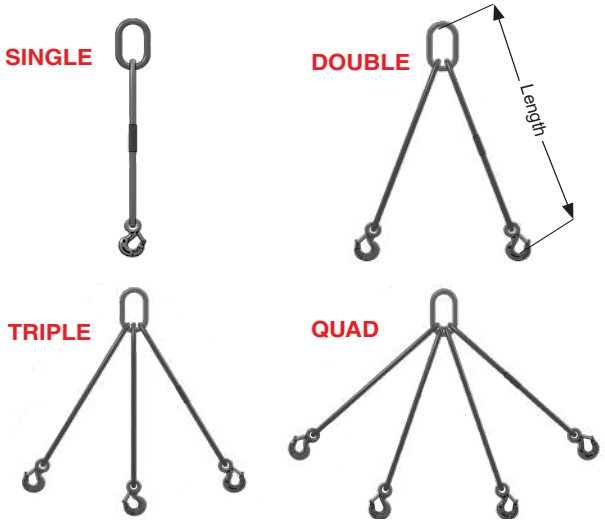
How to Order

Specify:

1. Number of legs:
   S (Single), **D** (Double), **T** (Triple), **Q** (Quad)
2. Master Link: **O** (Oblong)
3. Bottom Attachments: **S** (Sling Hook), **O** (Oblong)
4. *Tuflex* Code: EN30, EN90, etc.
5. Length of Assembly - Feet
   (Bearing point to bearing point)

Example:

DOSEN90 X 10' is a double leg bridle, with an oblong master link at the top, and sling hooks on each leg of the *Tuflex* EN90. Overall assembly length is 10-ft.



***Find hardware dimensions in Hardware section of this catalog. Use sling leg calculator to determine length @ www.*lift-all*.com**

Note: Import hook with latch is standard. Domestic Hook/latch options upon request.

LEGS	*Tuflex* Size	Rated Capacity (lbs.)			Hardware*	
		Vertical	Choker	Basket	Hook	Masterlink Stock Dia. (in.)
SINGLE	EN30	2,600	2,100	5,200	2TA	1/2
	EN60	5,300	4,200	10,600	4.5TA	3/4
	EN90	8,400	6,700	16,800	7TA	3/4
	EN120	10,600	8,500	21,200	11TA	1
	EN150	13,200	10,600	26,400	11TA	1
	EN180	16,800	13,400	33,600	15TA	1-1/8
	EN240	21,200	17,000	42,400	22TA	1-1/4
	EN360	31,000	24,800	62,000	20TC	1-1/2
	EN600	53,000	42,400	106,000	30TC	2
	EN800	66,000	52,800	132,000	40TC	2-1/4
	EN1000	90,000	72,000	180,000	n/a	2-1/2

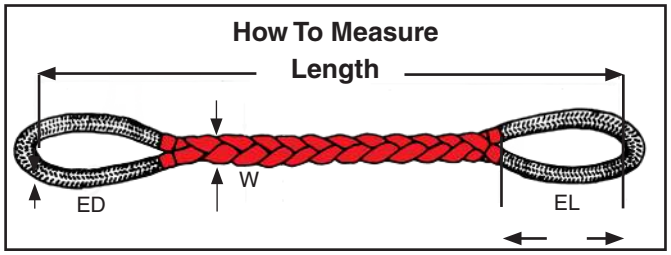
LEGS	*Tuflex* Size	One Leg @ 90°	ALL Legs @			Hardware*	
			60°	45°	30°	Hook	Masterlink Stock Dia. (in.)
DOUBLE	EN30	2,600	4,500	3,600	2,600	2TA	1/2
	EN60	5,300	9,100	7,400	5,300	4.5TA	3/4
	EN90	8,400	14,500	11,800	8,400	7TA	1
	EN120	10,600	18,300	14,900	10,600	11TA	1-1/4
	EN150	13,200	22,800	18,600	13,200	11TA	1-1/4
	EN180	16,800	29,100	23,700	16,800	15TA	1-1/2
	EN240	21,200	36,700	29,900	21,200	22TA	1-1/2
	EN360	31,000	53,700	43,800	31,000	20TC	2
	EN600	53,000	91,800	74,900	53,000	30TC	2-1/2
	EN800	66,000	114,300	93,300	66,000	40TC	3
	EN1000	90,000	155,800	127,200	90,000	n/a	3-1/4
TRIPLE	EN30	2,600	6,700	5,500	3,900	2TA	3/4
	EN60	5,300	13,700	11,200	7,900	4.5TA	1
	EN90	8,400	21,800	17,800	12,600	7TA	1-1/4
	EN120	10,600	27,500	22,400	15,900	11TA	1-1/2
	EN150	13,200	34,200	27,900	19,800	11TA	1-1/2
	EN180	16,800	43,600	35,600	25,200	15TA	1-3/4
	EN240	21,200	55,000	44,900	31,800	22TA	2
	EN360	31,000	80,500	65,700	46,500	20TC	2-1/4
	EN600	53,000	137,600	112,400	75,900	30TC	3-1/4
	EN800	66,000	171,400	139,900	99,000	40TC	3-1/2
	EN1000	90,000	233,800	190,800	135,000	n/a	4-1/4
QUAD	EN30	2,600	9,000	7,300	5,200	2TA	3/4
	EN60	5,300	18,300	14,900	10,600	4.5TA	1-1/4
	EN90	8,400	29,100	23,700	16,800	7TA	1-1/2
	EN120	10,600	36,700	29,900	21,200	11TA	1-1/2
	EN150	13,200	45,700	37,300	26,400	11TA	1-3/4
	EN180	16,800	58,200	47,500	33,600	15TA	2
	EN240	21,200	73,400	59,900	42,400	22TA	2-1/4
	EN360	31,000	107,300	87,600	62,000	20TC	2-3/4
	EN600	53,000	183,600	149,900	106,000	30TC	3-1/2
	EN800	66,000	228,600	186,600	132,000	40TC	4-1/4
	EN1000	90,000	311,700	254,500	180,000	n/a	4-3/4

BRAIDED *TUFLEX* ROUNDSLINGS

For multi-part heavy lifting, braided *Tuflex* roundslings offer you additional security.

Safety Built-In

Tuflex braids are made from three (6-Part), or four (8-Part) individual *Tuflex* roundslings. Should one of these component slings be damaged while in use, the remaining undamaged slings will be able to assist in safely returning the load to the ground.



Features and Benefits

Maintains all the basic *Tuflex* features plus ...

Promotes Safety

- Braided construction offers engineered safety.
- Lightweight and more flexible than chain slings.

Saves Money

- Large capacity slings are generally purchased for one major lift, then rarely used again. Braided *Tuflex* roundslings can be returned to *Lift-All* for disassembly, inspection, and re-tagging as individual slings.
- 6-Part flat braid offers wide-body for load stability.

Saves Time

- Easy to transport and hook-up.

6-PART Flat Braid (B6E)

Part Number	Color	Rated Capacity (lbs.)* Vertical	Choker	Basket	Basket @ 45°	Min. Sling Length+ (ft.)	Approximate Measurements: Wgt. (lbs. per foot)	Standard Eye Length (EL) (in.)	Width @ Load (W) (in.)	Thick-ness at Load (in.)	Eye Dia. (ED) (in.)	Minimum Hardware Dia.** (in.)	Minimum Contact Width (in.)
B6E30	Purple	6,700	5,300	13,400	9,400	4.50	0.8	15	3.25	0.75	1.75	0.63	0.313
B6E60	Green	13,500	10,800	27,000	19,000	5.00	1.2	15	3.75	1.13	2.00	1.00	0.438
B6E90	Yellow	21,400	17,100	42,800	30,000	5.50	1.6	15	4.25	1.25	2.00	1.25	0.500
B6E120	Tan	27,000	21,600	54,000	38,000	5.50	2.0	15	4.50	1.31	2.25	1.38	0.625
B6E150	Red	33,600	26,800	67,200	47,000	6.50	2.7	20	5.25	1.75	2.50	1.50	0.688
B6E180	White	42,800	34,200	85,600	60,000	7.00	3.2	20	5.50	2.00	2.75	1.75	0.813
B6E240	Blue	54,000	43,200	108,000	76,000	9.00	4.4	20	6.63	2.25	3.50	1.75	0.813
B6E360	Gray	79,000	63,200	158,000	111,000	9.50	6.5	30	8.25	2.50	4.25	2.50	1.00
B6E600	Brown	135,100	108,000	270,200	191,000	10.50	9.7	30	11.00	2.75	5.00	3.00	1.313
B6E800	Olive	168,300	134,600	336,600	230,000	13.00	12.0	30	12.00	4.00	5.25	3.50	1.375
B6E1000	Black	229,500	183,600	459,000	320,000	14.50	15.6	31	13.50	4.50	5.75	4.00	1.750

** This is the minimum recommended diameter for the connection hardware to be used for a vertical hitch.
+ Shorter lengths available using reduced eye lengths.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

BRAIDED *TUFLEX* ROUNDSLINGS

Order Information

Ordering length should be based on the sling at rest. Braided *Tuflex* length tolerance is ±2"+5% of the ordered length, with the sling at rest. At it's rated capacity, braided *Tuflex* will stretch approximately 9%.

Always protect synthetic slings from being cut or damaged on corners, edges and protrusions by using protection sufficient for each application.

Refer to Sling Protection section in this catalog.

8-PART Round Braid (B8E)

Part Number	Color	Rated Capacity (lbs.)* Vertical	Choker	Basket	Basket @ 45°	Min. Sling Length+ (ft.)	Approximate Measurements Wgt. (lbs. per foot)	Standard Eye Length (EL) (in.)	Width @ Load (W) (in.)	Thickness at Load (in.)	Eye Dia. (ED) (in.)	Minimum Hardware Dia. ** (in.)	Minimum Contact Width (in.)
B8E30	Purple	8,800	7,100	17,600	12,400	4.50	1.1	15	3.50	1.00	1.75	0.75	0.313
B8E60	Green	18,000	14,400	36,000	25,000	5.00	1.5	15	4.00	1.38	2.00	1.13	0.500
B8E90	Yellow	28,500	22,800	57,000	40,000	5.50	2.2	15	4.75	1.63	2.50	1.50	0.563
B8E120	Tan	36,000	28,800	72,000	50,000	5.50	2.6	15	5.00	1.75	2.50	1.50	0.688
B8E150	Red	44,900	35,900	89,800	63,000	6.50	3.6	20	6.00	2.13	2.75	1.75	0.750
B8E180	White	57,100	45,600	114,200	80,000	7.00	4.1	20	6.25	2.50	3.25	2.00	0.875
B8E240	Blue	72,000	57,600	144,000	101,000	9.00	5.6	20	7.50	2.75	3.75	2.00	0.938
B8E360	Gray	105,400	84,300	210,800	149,000	9.50	8.3	30	9.50	3.25	4.50	2.50	1.125
B8E600	Brown	180,200	144,100	360,400	250,000	10.50	12.0	30	13.00	3.75	5.50	3.50	1.500
B8E800	Olive	224,400	179,500	448,800	310,000	13.00	16.0	30	13.50	4.50	6.00	4.00	1.625
B8E1000	Black	306,000	244,000	612,000	430,000	14.50	20.0	31	15.75	5.25	6.50	4.75	2.00

** This is the minimum recommended diameter for the connection hardware to be used for a vertical hitch.
+ Shorter lengths available using reduced eye lengths.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

HIGH PERFORMANCE ROUNDSLINGS

The solution for lifting the heaviest loads using the lightest, most flexible and ergonomic slings available!

Promotes Safety

- Lift-All slings with high performance core fibers have the lightest sling weight to lifting capacity ratio of our entire product line.
- Non-blended core fibers provide more consistent sling performance.
- Low stretch (1%) is especially helpful when working in low headroom areas.
- Double-wall *Tuffhide* jacket is abrasion resistant, protecting the core fibers from wear and degradation from UV light.
- Flexible, conforms to the shape of load.
- Consistent matched lengths for better multiple sling control.
- *Tuff-Tag* provides serial numbered identification for traceability of manufacturing components and process.
- Endless style allows spreading of sling components, promoting improved load stability.
- Lift-All maintains the same design criteria for the entire product line, and does not lower design requirements for roundslings rated above 100,000 lbs.

Saves Time

- Independent core yarns choke tightly, but release easily after use.
- The single component round body profile makes for faster rigging, avoiding any need to keep the sling body flat.
- Round bearing surface makes for easier hook-up to connection point.
- Smaller diameter fits more easily into tight work areas.

Saves Money

- Lightweight construction with high capacity affords an ergonomic solution which reduces rigger fatigue and injury.
- Roundslings with damaged outer covers may be returned for inspection and possible cover repair and proof-test.
- Double-wall seamless cover has no sewn edges preventing rupture, which requires removal from service.
- Wear points can be shifted to extend sling life.

Inspection Criteria

Remove from service when:

- Cuts to sling cover expose gold core yarns.
- Holes, tears, snags or abrasion expose gold core yarns.
- The sling shows signs of melting, charring or chemical damage.
- Capacity tag is illegible or missing.
- Other visible damage that causes doubt as to strength of the sling.

Environmental Considerations

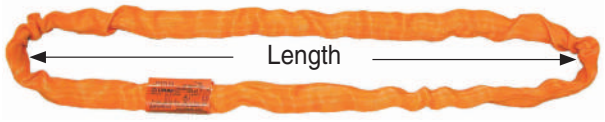
- ***Chemical***: Do not use in a non-compatible chemical environment. For confirmation, contact *Lift-All* and provide specific chemical, concentration, temperature, and time factors.

Temperature

- ***KeyFlex*** slings are approved for use up to 350°F.
- ***DynaFlex*** slings are approved for use up to 158°F.

Ordering Information

How to Measure



Specify the sling code and length in feet (bearing point to bearing point).

Slings are made to a tolerance of ± 1"+1% of the specified length, and can stretch 1% at rated capacity.

Notes:

1. Matched lengths of slings must be specified at time of order.
2. Available in endless style only.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

High Performance Roundslings

DYNAFLEX™ ROUNDSLING

Dyneema® High Performance Core Ultra-Lightweight Roundsling

DynaFlex is manufactured with a load bearing core of *Dyneema®,* the world's strongest fiber, yet remains soft and flexible to allow for easy rigging. This high capacity, ultra-lightweight roundsling is a safe and ergonomic alternative to steel and other forms of synthetic slings.

Features and Benefits

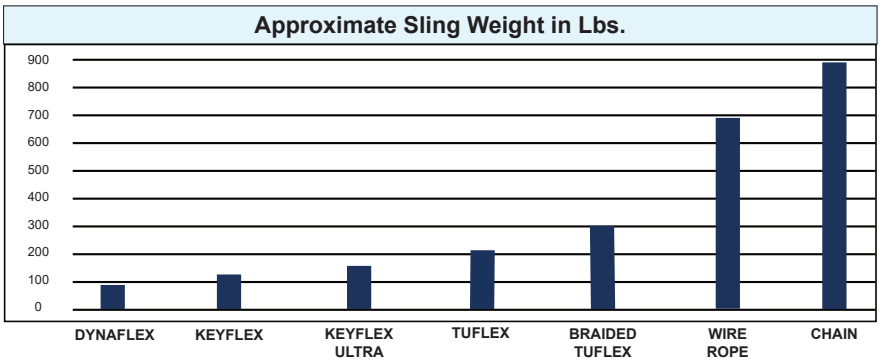
- **Ultra-Lightweight** – Approximately 20% lighter than *KeyFlex*™ and 52% lighter than *Tuflex*® for the same capacity, reducing the probabilities of hand and shoulder strains and sprains.
- **Good Chemical Resistance with Reduced Water Absorption** – A 10' *DynaFlex* sling will increase 6 pounds in water weight when rigged wet vs. 13 pounds for the same capacity and length *Tuflex* roundsling. Users will appreciate the weight reduction, minimizing rigger fatigue and increasing safety.
- **Neutral Buoyancy** – *DynaFlex* slings are a great choice for water recovery and lifting applications.
- **100% *Dyneema* Core (non-blended)** – We use the most advanced high tenacity fiber on the market for lifting slings. The homogeneous core fiber reacts uniformly regardless of lift application. Designed with your safety in mind.
- ***DynaFlex* Single Component Twisted Core** – Single path design allows higher strength retention around common rigging hardware. This saves time during hook up to the connection point and rigging vs. dual path slings. No need to worry about sling body orientation.
- **Promotes Safety** – Customized designs are available, including higher capacity and/or shorter length versions.

Note: *DynaFlex* slings are approved for use up to 158°F.

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

High Performance Roundslings

DYNAFLEX™ ROUNDSLING



Item		Approximate Sling Weight (lbs.)	Vertical Capacity (lbs.)
***DynaFlex* RoundSling:**	DEN200K x 25-ft.	99	200,000
***KeyFlex* RoundSling:**	KEN200K x 25-ft.	130	200,000
***KeyFlex* Ultra RoundSling:**	KEN3P200 x 25-ft.	173	200,000
***Tuflex* RoundSling (2 ea.):**	EN1000 x 25-ft.	207	180,000
Braided *Tuflex* RoundSling:	B8E600 x 25-ft.	300	180,000
Wire Rope Sling (2 ea.):	2-1/4" 6X37 IWRC x 25-ft.	669	176,000
Chain Sling (2 ea.):	1-1/4" SOS x 25-ft.	870	144,600

DynaFlex Capacities and Measurements

Part Number	Rated Capacity (lbs.)				Min. Length (ft.)	Approximate Measurements				
	Vertical	Choker	Basket @ 90°	Basket @ 45°		Wgt. (lbs per foot)	Body Dia. Relaxed (in.)	Width @ Load (in.)	Minimum Hardware Diameter (in.)	Minimum Contact Width (in.)
DEN10K	10,000	8,000	20,000	14,100	3	0.25	1.00	1.56	0.69	0.23
DEN15K	15,000	12,000	30,000	21,000	3	0.38	1.13	1.75	0.88	0.31
DEN20K	20,000	16,000	40,000	28,000	3	0.44	1.25	2.00	1.06	0.37
DEN25K	25,000	20,000	50,000	35,000	3	0.54	1.25	2.13	1.25	0.47
DEN30K	30,000	24,000	60,000	42,000	3	0.66	1.38	2.13	1.44	0.50
DEN40K	40,000	32,000	80,000	56,000	3	0.79	1.75	2.75	1.50	0.53
DEN50K	50,000	40,000	100,000	70,000	5	1.16	1.88	2.88	1.75	0.62
DEN60K	60,000	48,000	120,000	84,000	5	1.31	2.00	3.13	2.00	0.69
DEN70K	70,000	56,000	140,000	98,000	8	1.47	2.13	3.25	2.19	0.76
DEN80K	80,000	64,000	160,000	113,000	8	1.59	2.25	3.50	2.38	0.82
DEN90K	90,000	72,000	180,000	127,000	8	1.94	2.50	3.88	2.38	0.83
DEN100K	100,000	80,000	200,000	141,000	8	2.06	2.75	4.25	2.50	0.84
DEN125K	125,000	100,000	250,000	176,000	8	2.60	3.00	4.88	2.63	0.92
DEN150K	150,000	120,000	300,000	210,000	8	3.24	3.25	5.25	2.88	1.00
DEN175K	175,000	140,000	350,000	240,000	8	3.51	3.50	5.75	3.13	1.10
DEN200K	200,000	160,000	400,000	280,000	8	3.90	3.75	6.13	3.38	1.18

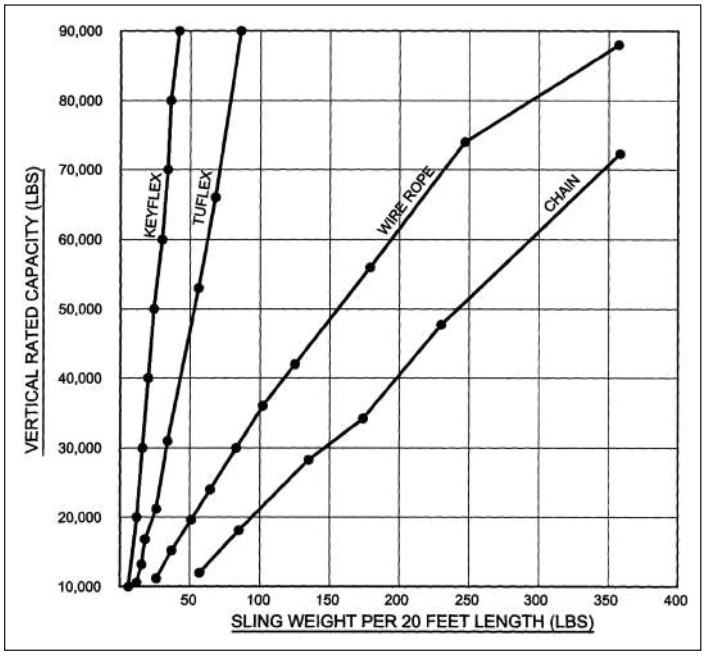
* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

High Performance Roundslings

KeyFlex roundslings with *Technora*® core are light and flexible

The chart at the right plots the weights of 20-ft. slings at various capacities:

Sling Type	Vertical Rating (lbs.)	Sling Weight (lbs.)
KeyFlex	90,000	48
Tuflex	90,000	86
Wire Rope	88,000	357
Chain	72,300	358



KeyFlex Benefits:

- Low weight per capacity reduces risk of injury to riggers.
- 1% stretch at rated capacity reduces abrasion and allows for better load control.
- Great for low headroom situations.
- *KeyFlex* with aramid load fiber are approved for use ***up to 350°F***.
- Lightweight and compact size promotes speedier rigging, transport and storage when compared to any other type of sling.

KeyFlex Capacities and Measurements

Part Number	Rated Capacity (lbs.) Vertical	Choker	Basket @ 90°	Basket @ 45°	Min. Length (ft.)	Approximate Measurements Wgt. (lbs per foot)	Body Dia. Relaxed (in.)	Width @ Load (in.)	Minimum Hardware Diameter (in.)	Minimum Contact Width (in.)
KEN10K	10,000	8,000	20,000	14,100	3	0.3	1.00	1.56	0.69	0.23
KEN15K	15,000	12,000	30,000	21,000	3	0.5	1.13	1.75	0.88	0.31
KEN20K	20,000	16,000	40,000	28,000	3	0.6	1.25	2.00	1.06	0.37
KEN25K	25,000	20,000	50,000	35,000	3	0.7	1.25	2.13	1.25	0.47
KEN30K	30,000	24,000	60,000	42,000	3	0.8	1.38	2.13	1.44	0.50
KEN40K	40,000	32,000	80,000	56,000	3	1.0	1.75	2.75	1.50	0.53
KEN50K	50,000	40,000	100,000	70,000	5	1.3	1.88	2.88	1.75	0.62
KEN60K	60,000	48,000	120,000	84,000	5	1.7	2.00	3.13	2.00	0.69
KEN70K	70,000	56,000	140,000	98,000	8	1.9	2.13	3.25	2.19	0.76
KEN80K	80,000	64,000	160,000	113,000	8	2.1	2.25	3.50	2.38	0.82
KEN90K	90,000	72,000	180,000	127,000	8	2.4	2.50	3.88	2.38	0.83
KEN100K	100,000	80,000	200,000	141,000	8	2.6	2.75	4.25	2.50	0.84
KEN125K	125,000	100,000	250,000	176,000	8	3.0	3.00	4.88	2.63	0.92
KEN150K	150,000	120,000	300,000	210,000	8	3.5	3.25	5.25	2.88	1.00
KEN175K	175,000	140,000	350,000	240,000	8	4.8	3.50	5.75	3.13	1.10
KEN200K	200,000	160,000	400,000	280,000	8	5.3	3.75	6.13	3.38	1.18

Available in higher capacity and/or shorter length versions.

***Technora*® is a registered trademark of Teijin LTD.**

* **⚠ WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

KEYFLEX ULTRA™ ROUNDSLINGS

The Higher Capacity *KeyFlex* Roundsling

- **High Capacities**: Up to 1/2 million pounds in a vertical hitch, or 1 million pounds in a basket hitch.
- **Rugged Construction**: Our best 4-Ply *Tufhide* nylon jacket covers three individual ***KeyFlex*** roundslings with *Technora*® core.
- **High Value**: You get the *Lift-All* quality you expect which exceeds industry standards at a competitive price.
- **Extra Utility**: ***KeyFlex Ultra*** roundslings can be returned to *Lift-All* for disassembly, inspection, and re-tagging as individual slings.
- **Repairable**: The outer cover can be replaced .

KeyFlex Ultra is 87% lighter than comparable capacity wire rope slings.

This makes it easier to handle, and safer for workers to use.

Part Number	Rated Capacity (lbs.)			
	Vertical	Choker	Basket @ 90°	Basket @ 45°
KEN3P200	200,000	160,000	400,000	280,000
KEN3P250	250,000	200,000	500,000	350,000
KEN3P300	300,000	240,000	600,000	420,000
KEN3P400	400,000	320,000	800,000	560,000
KEN3P500	500,000	400,000	1,000,000	700,000

Available in lengths up to 79 feet

Part Number	Component Sling Size	Minimum Sling Length (ft.)	Weight Per Foot (lbs.)	Body Diameter Relaxed (in.)	Body Width @ Load (in.)	Minimum Edge Contact Radius	Minimum Hardware Diameter
KEN3P200	KEN80K	10	6.9	3.88	6.25	1.13	3.25
KEN3P250	KEN100K	12	8.6	4.75	7.75	1.25	3.25
KEN3P300	KEN125K	14	9.9	5.50	9.00	1.25	3.50
KEN3P400	KEN150K	15	15.8	6.00	10.50	1.50	4.25
KEN3P500	KEN200K	17	17.5	6.75	11.00	1.63	4.63

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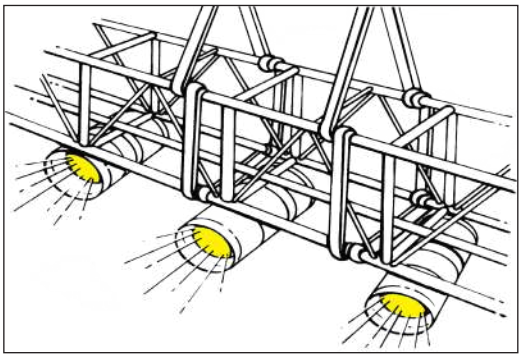
Specialty Roundslings

STEELFLEX ROUNDSLINGS

THE STEEL SLING WITH THE FABRIC FEEL



Designed for suspension applications

With safety being of the utmost importance in overhead suspension, *Lift-All's Steelflex* roundslings combine flexibility, strength and heat resistance (400°F) with the soft feel of fabric to meet your most demanding suspension requirements.

Steelflex roundslings feature steel galvanized aircraft cable wound in an endless configuration. This wire core is encased in a black double-wall, polyester jacket. A unique inspection window allows for easy inspection of the core for broken wires and corrosion. The result is a highly flexible, easy to use sling that complies with all of the current rigging codes. Stretch at rated capacity is approximately 1%.

Features and Benefits

- Black cover for stage rigging applications.
- No backup rigging required.
- Window allows complete core inspection.
- Superior flexibility makes rigging easy.
- Conforms to load to grip securely.
- Superior cut resistance.

How To Measure

Part Numbers	Rated Capacity (lbs.) Vertical	Choker	Basket	Minimum Hardware Dia. (in.)
GACEN40X18IN	3,600	3,000	7,200	.625
GACEN40X2				
GACEN60CX18IN	5,300	4,200	10,600	.625
GACEN60CX2				
GACEN60X3				
GACEN60X4				
GACEN60X5				
GACEN60X6				
GACEN60X7				
GACEN60X8				
GACEN60X9				
GACEN60X10				
GACEN60X11				
GACEN60X12				

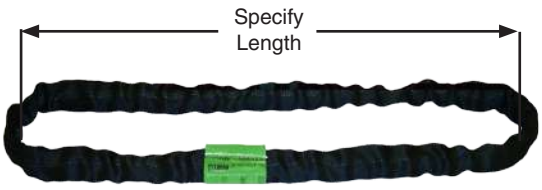
400°F Temperature Rating
NO Wire Rope Backup Needed
Core Inspection Window Standard

Inspection Window

1. Maximum length for *Steelflex* is 12-ft.
2.Sling lengths under 3' use a modified construction and do not have a seamless cover.

POLYESTER STAGE SLINGS

These lightweight roundslings are ideal for easy and inconspicuous suspension of stage sound and lighting equipment. Black sleeve material helps sling blend into the surroundings. *Lift-All* stage slings include the *Tuflex* features and benefits except that the color coding of the slings is achieved by using a color-coded identification tag. Double-wall sleeve material is standard.



Part Number	Rated Capacity (lbs.)*			Minimum Length (ft.)	Approximate Measurements			
	Vertical	Choker	Basket		Weight (lbs. / ft.)	Body Diameter Relaxed (in.)	Body Width @Load (in.)	Minimum Hardware Diameter (in.)
BSEN30	2,600	2,100	5,200	1-1/2	.2	5/8	1-1/8	7/16
BSEN60	5,300	4,200	10,600	1-1/2	.3	7/8	1-1/2	5/8
BSEN90	8,400	6,700	16,800	3	.4	1-1/8	1-7/8	3/4

TUFLEX WIDE-LIFT

Wide Load Support and Balance

Tuflex wide-lift slings distribute the load over a wide area and offer better balance of larger loads - whether heavy or light.

Features and Benefits

Maintains all the basic *Tuflex* features plus ...

Promotes Safety

- Wide body distributes load over wide area and offers improved stability.

Saves Money

- Bearing point of eyes can be shifted to prolong sling life.
- Custom sizes available to fit your needs.

Saves Time

- Standard eye length is 12", making hook-up easy and fast.
- Standard body width is 12", making load balancing easier.

Note:
Wide-lift slings should only be used in basket hitch.

Consult *Lift-All* for special requirements.

Code	Color of Eyes	Vertical Basket Hitch Rated Capacity* (lbs.)
WLEN30	**Purple**	**5,200**
WLEN60	**Green**	**10,600**
WLEN90	**Yellow**	**16,800**
WLEN120	**Tan**	**21,200**

* **WARNING** Always protect Roundslings from corners, edges, or protrusions. Refer to the Sling Protection section of this catalog to choose the right protection product for your lift.

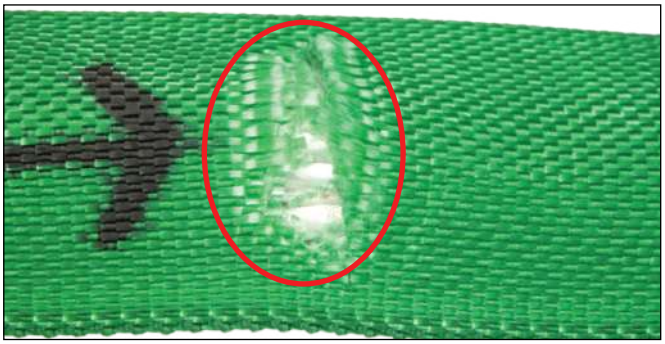
ROUNDSLING INSPECTION CRITERIA

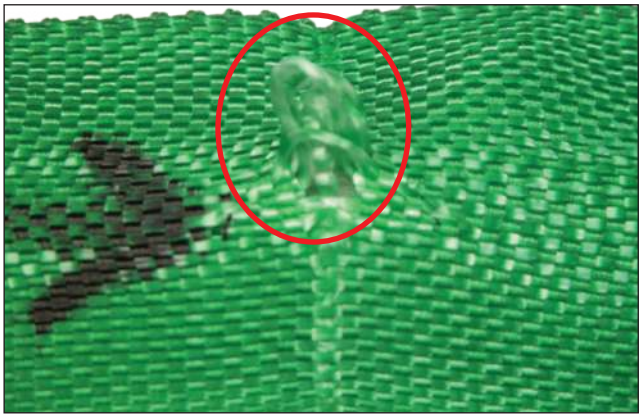
The following photos illustrate some of the damage that occurs and indicates the sling must be taken out of service. For inspection frequency requirements, see the General Information section in this catalog.

CUTS TO THE COVER

WHAT TO LOOK FOR: Broken fibers of equal length indicate that the sling has been cut. When core yarns are exposed, the damage to the yarns cannot be determined. Therefore, the sling must be taken out of service.

TO PREVENT: Always protect synthetic slings from being cut by using cut protection. See Sling Protection section in this catalog.





HOLES, SNAGS, or PULLS

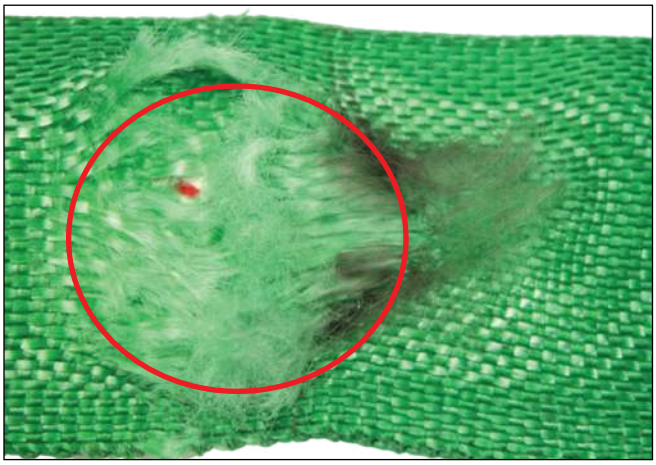
WHAT TO LOOK FOR: Punctures or areas where fibers stand out from the rest of the sling surface. Inspect sling and remove from service if core yarn is exposed.

TO PREVENT: Avoid sling contact with protrusions, both during lifts and while transporting or storing. See Sling Protection section in this catalog.

ABRASIVE WEAR

WHAT TO LOOK FOR: Areas of the sling that look and feel fuzzy indicate that the fibers have been broken by contact and movement against a rough surface. Affected areas are usually discolored. Inspect sling and remove from service if core yarn is exposed.

TO PREVENT: Never drag slings along the ground. Never pull slings from under loads that are resting on the sling. Use wear protection between slings and rough surface loads. See Sling Protection section in this catalog.

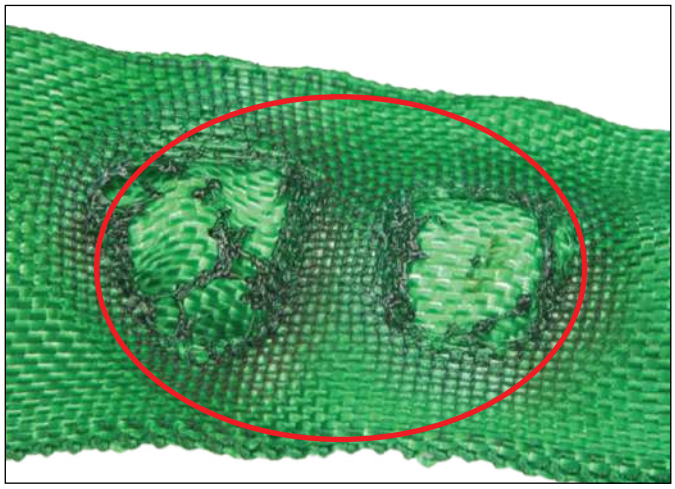


ROUNDSLING INSPECTION CRITERIA

HEAT / CHEMICAL DAMAGE

WHAT TO LOOK FOR: Melted or charred fibers anywhere along the sling. Heat and chemical damage look similar and can damage sling fibers, compromising the sling's strength. Look for discoloration and/or fibers that have been fused together and may feel hard or crunchy. Slings showing heat or chemical damage must be removed from service.

TO PREVENT: Never use *Tuflex* roundslings where they can be exposed to temperatures in excess of 200°F, or around chemicals without confirming that the sling material is compatible with the chemicals being used. For elevated temperatures up to 350°F, use ***KeyFlex*** roundslings.



ILLEGIBLE OR MISSING TAGS

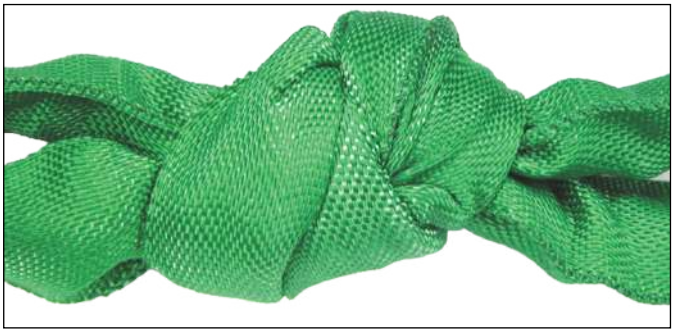
WHAT TO LOOK FOR: The information provided on the sling tag is important for knowing what sling to use and how it will function. If you cannot find or read all of the information on a sling tag, the sling must be taken out of service.

TO PREVENT: Never set loads down on top of slings or pull slings from beneath loads if there is any resistance. Load edges should never contact sling tags during the lift. Avoid paint or chemical contact with tags.

KNOTS

WHAT TO LOOK FOR: Knots compromise the strength of slings by not allowing all fibers to contribute to the lift as designed. Knots are rather obvious problems as shown here.

TO PREVENT: Never tie knots in slings.



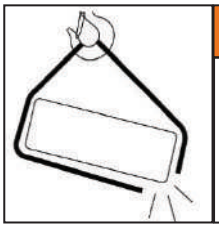
Cuts to the cover NOT exposing internal core yarns. The double-walled jacket protects the inner core yarns from damage. If the damage appears only to the outer jacket and does not expose the inner core yarns, the sling may remain in service (except chemical or heat damage). The sling may also be returned to *Lift-All* for inspection and repair to the jacket.

TO PREVENT: Use the appropriate sling protection between the sling and all edges that come in contact with the sling. See the Sling Protection section in this catalog.

CUT AND WEAR PROTECTION

Selection of Sling Protection Products

Sling protection products need to be used in applications where sling damage can occur. Cutting of synthetic slings during use is the number one cause of sling accidents. A variety of factors influence sling protection performance. Since no material is fully cut proof, a qualified person must select materials and methods that adequately protect slings from edges or surfaces. *Lift-All* can assist customers with their product selections.



WARNING

Exposure of sling to edges with a radius that is too small can cause sling failure and loss of the load. Always protect synthetic slings from being cut or damaged by corners, edges, and protrusions using protection sufficient for each application.

Cut Protection versus Wear Protection

Lift-All sling protection products are divided into two categories, Cut Protection and Wear Protection. **Cut Protection Products** are designed to improve workplace safety. When placed between slings and edges, cut protection products act as a buffer to prevent sling cutting and to reduce bearing pressure levels at contact areas. **Wear protection products** serve to extend sling life by reducing abrasive wear and prevent marring of the load surfaces.
The following table provides comparative cut protection performance for standard *Lift-All* products.

Product	Thickness	Color	Relative Cut Protection Performance Rating
CUT PROTECTION			
Edge Defender 3-Ply Poly Flat Quick Sleeve Code: ED	0.45	Yellow	
Edge Defender Flex Plus Flat Quick Sleeve w/*Dyneema*® Code: FQSD	0.35	White/Yellow	
Edge Defender Flex Plus Tubular Quick Sleeve w/*Dyneema*® Code: TQSD	0.24	White/Yellow	
Sling Shield Code SS	1" Radius	Silver/Red	
COMMON WEAR PROTECTION MATERIALS - LOOSE PADDING			
Polyester Webbing 1600 Web Pads	0.14	Yellow	
***Dyneema*® Sleeving** (Light Duty Single Wall)	0.054	White	
Pukka (Synthetic Felt) Pads	0.33	White	
Leather (Heavy) Pads	0.13	Tan	
PVC Pads	0.17	Black	
SEWN-ON TYPE PADS			
Polyester Webbing 1600 Web Pads	0.14	Yellow	
***Dyneema*® Sleeving** (Light Duty Single Wall)	**Not Recommended as a Sewn Sleeve**		
Pukka (Synthetic Felt) Pads	0.33	White	
Leather (Heavy) Pads	0.13	Tan	
PVC Pads	0.17	Black	

Performance Rating: The bar graphs shown above reflect the comparative cut protection performance of *Lift-All* Cut Protection products against commonly used loose and sewn-on types of wear protection materials.
Test Lift Qualification: To validate the suitability of cut protection in each application, always complete one or more test lifts in a non-consequence manner. Technical Bulletin MS-10 available for additional information.

EDGE DEFENDER™

Flat Type Cut Protection Pads

(Code: ED)

US Patent 9,597,996
Canadian Patent 2,900,438

The *Edge Defender* product line is patented technology. Constructed with multiple layers of protection material with *Kevlar*® aramid binding, the *Edge Defender* has become the new standard in edge cut protection technology for guarding synthetic slings. Protect your loads and your slings now by using the *Lift-All Edge Defender*!

- **Cut Protection:** The patented technology creates a high level of compression on the surface to produce a superior level of cut protection.
- **Conforms to the Shape of Load Edges:** The flat design will conform to the load shape during handling operations, yet the construction is firm enough to prevent wrinkling.
- **Construction Materials:** *Edge Defender* is made of polyester with *Kevlar* aramid binding.
- **Ease of Attachment:** The use of hook and loop straps allow quick attachment and helps to hold position on slings.
- **Ease of Sling Inspection:** The open design allows easy access to slings during frequent inspections.
- **Available Sizes**: Available in a variety of lengths and widths.

Standard Pad Widths and Maximum Appropriate Sling Sizes				Part Numbers for Standard *Edge Defender* Lengths				
Pad Width (In.)	Maximum Web Sling Width (in.)	Maximum *Tuflex* Size	Maximum [1]*KeyFlex* [1]*DynaFlex*™ Size	12-inch	18-inch	24-inch	30-inch	36-inch
3	2	EN30	n/a	ED3X12IN	ED3X18IN	ED3X24IN	ED3X30IN	ED3X36IN
4	3	EN60	n/a	ED4X12IN	ED4X18IN	ED4X24IN	ED4X30IN	ED4X36IN
6	4	EN150	KEN20K	ED6X12IN	ED6X18IN	ED6X24IN	ED6X30IN	ED6X36IN
8	6	EN240	DEN50K	ED8X12IN	ED8X18IN	ED8X24IN	ED8X30IN	ED8X36IN
10	8	EN600	KEN90K	ED10X12IN	ED10X18IN	ED10X24IN	ED10X30IN	ED10X36IN
12	10	EN1000	DEN125K	ED12X12IN	ED12X18IN	ED12X24IN	ED12X30IN	ED12X36IN

[1]Double-Leg EN, KEN, or DEN

Edge Defender™ Flex Plus
Flat Style Cut Protection
(Code: FQSD)

US Patent 9,597,996
Canadian Patent 2,900,438

Our new *Edge Defender* Flex Plus made of *Dyneema*® fiber is woven to provide cut protection for a variety of edges and surfaces. The 'Flex Plus' is the addition of a double-plied layer of *Dyneema*® with *Kevlar*® aramid binding. These pads are thinner, lighter, and more flexible than the standard *Lift-All Edge Defender*, yet maintain the same level of cut protection performance. The *Edge Defender* Flex Plus is well suited for handling loads with a straight, curved or non-uniform shaped edge, including coil handling applications.

Edge Defender Flex Plus Flat Quick Sleeve

Features and Benefits

Lighter and More Flexible: The patented *Edge Defender* Flex Plus technology creates a high level of compression on the interior surface to produce a superior level of cut protection. With the use of high modulus *Dyneema*® material, this lighter 'Flex Plus' version of the flat *Edge Defender* is almost twice as flexible and maintains the same high level cut protection performance.

Ease of Attachment: Hook and loop straps allow quick attachment and helps to keep position on slings.

Ease of Inspection: The open design allows easy access to slings during their frequent inspections.

Available Sizes: Available in a variety of lengths and widths.

Standard Pad Widths and Maximum Sling Sizes				*Edge Defender* Flex Plus Flat Quick Sleeves				
Pad Width (In.)	Web Sling Width (in.)	*Tuflex**	[1]*KeyFlex* [1]*DynaFlex*™	1-FT	18-INCH	2-FT	30-INCH	3-FT
3	2	EN30	—	3FQSDX1	3FQSDX18IN	3FQSDX2	3FQSDX30IN	3FQSDX3
6	4	EN150	KEN20K	6FQSDX1	6FQSDX18IN	6FQSDX2	6FQSDX30IN	6FQSDX3
9	6	EN240	KEN50K	9FQSDX1	9FQSDX18IN	9FQSDX2	9FQSDX30IN	9FQSDX3
10	8	EN600	KEN80K	10FQSDX1	10FQSDX18IN	10FQSDX2	10FQSDX30IN	10FQSDX3
12	10	EN1000	KEN120K	12FQSDX1	12FQSDX18IN	12FQSDX2	12FQSDX30IN	12FQSDX3

*Maximum recommended size is shown.
[1]Double-Leg EN, KEN, or DEN
**DuPont*™ and *Kevlar*® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company

Edge Defender™ Flex Plus

Tubular Style Cut Protection

(Code: TQSD)

US Patent 9,597,996
Canadian Patent 2,900,438

Our new *Edge Defender Flex Plus* made of *Dyneema*® fiber is woven to provide cut protection for a variety of edges and surfaces. The 'Flex Plus' is the addition of a double-plied layer of *Dyneema*® with *Kevlar*® aramid binding. These pads are thinner, lighter, and more flexible than the standard *Lift-All Edge Defender*, yet maintain the same level of cut protection performance. The *Edge Defender* Flex Plus is well suited for handling loads with a straight, curved or non-uniform shaped edge, including coil handling applications.

Edge Defender Flex Plus Tubular Quick Sleeve

Features and Benefits

Lighter and More Flexible: The patented *Edge Defender* Flex Plus technology creates a high level of compression on the interior surface to produce a superior level of cut protection. With the use of high modulus *Dyneema*® material, this lighter Flex Plus version provides a wraparound style pad in a flexible design, while maintaining a high level of cut protection performance.

360° of Protection: The *Edge Defender* Flex Plus tubular style pad is well-suited for use with roundslings and affords uniform cut protection around the exterior of the sling body.

Ease of Attachment and Removal: Hook and loop fastening allows quick attachment and easy access for sling inspections.

Pad Positioning: When sized properly, this tubular pad will readily stay in the desired location on slings.

Available Sizes: Available in a variety of lengths and widths.

Standard Pad Widths and Maximum Sling Sizes						*Edge Defender* Flex Plus Tubular Quick Sleeves				
Pad Width (In.)	Web Sling Width* (in.)	*Tuflex**		*KeyFlex** *DynaFlex*™						
		Single Leg EN	Double Leg EN	Single Leg KEN/DEN	Double Leg KEN/DEN	1-FT	18-INCH	2-FT	30-INCH	3-FT
4.5	1	n/a	n/a	n/a	n/a	4TQSDLX1	4TQSDLX18IN	4TQSDLX2	4TQSDLX30IN	4TQSDLX3
7	2	60	n/a	n/a	n/a	7TQSDX1	7TQSDX18IN	7TQSDX2	7TQSDX30IN	7TQSDX3
8	—	150	60	30K	n/a	8TQSDX1	8TQSDX18IN	8TQSDX2	8TQSDX30IN	8TQSDX3
10	—	240	120	50K	20K	10TQSDX1	10TQSDX18IN	10TQSDX2	10TQSDX30IN	10TQSDX3
13	4	360	180	80K	30K	13TQSDX1	13TQSDX18IN	13TQSDX2	13TQSDX30IN	13TQSDX3
16	—	1000	360	175K	80K	16TQSDX1	16TQSDX18IN	16TQSDX2	16TQSDX30IN	16TQSDX3
20	8	—	800	—	125K	20TQSDX1	20TQSDX18IN	20TQSDX2	20TQSDX30IN	20TQSDX3

*Maximum recommended size is shown.

[1]Double-Leg EN, KEN, or DEN

**DuPont*™ and *Kevlar*® are trademarks or registered trademarks of E.I. du Pont de Nemours and Company

SLING SHIELD™

US Patent 9,039,337
Canadian Patent 2,846,325

Sling Shields are constructed with a low-weight, high-strength aluminum center bar and offer the highest level of cut protection of our standard products. They provide a 1" bend radius to protect your slings from even the sharpest load edges and sustain sling tensions of up to 25,000 pounds per inch of sling contact width. *Velcro*® strips hold sling in place and a magnetic surface retains position on the steel load. *Sling Shields* are well suited for loads having a straight contact edge, such as I-Beams. Stop replacing your synthetic slings and wear pads due to cutting; use *Lift-All Sling Shields*.

Features and Benefits

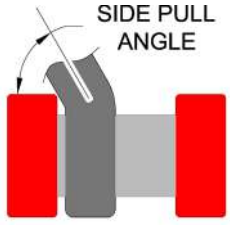
- **Magnetic***:* Holds position against steel loads for ease of rigging.
- **Cut Protection:** *Sling Shields* provide a very high level of cut protection, supporting sling tensions of up to 25,000 pounds per inch of contact width.
- **1" Bend Radius:** The design provides a bend radius to reduce bearing pressures for synthetic slings.
- **Construction Materials:** *Sling Shields* are made of high strength extruded aluminum bars.
- **Ease of Attachment:** The use of hook and loop straps allow quick attachment.
- **Sling Position***:* Polycarbonate end retainers keep slings positioned on the *Sling Shield*.
- **Ease of Sling Inspection***:* The open design allows easy access to slings during their frequent inspections.

Part Number	Inside Width (In.)	Overall Length (In.)	Weight (Lbs.)	Widest Web Sling (In.)	Largest *Tuflex* Size		Largest *Keyflex* Size	
					Single Leg	Double Leg	Single Leg	Double Leg
SS14	4.50	7.50	2.7	4	EN360	EN120	KEN80K	KEN15K
SS16	6.75	10.00	3.2	6	EN1000	EN240	KEN100K	KEN40K
SS112	12.75	16.00	4.8	12	EN1000	EN1000	KEN100K	KEN100K

LOAD RATINGS

The load rating for *Sling Shields* is 25,000 lbs. of sling tension per inch of sling width. This rating is reduced when lifting at sling angles of less than 70°.

- Do not exceed listed sling tensions.
- Prevent *Sling Shield* from sliding when using at an angle.
- Do not use at side pull angles less than 45°.
- See Safety Bulletin for more detailed information (included with each product at time of purchase).



Side Pull Angle	Basket Choker Rating (lbs.)*
65°	17,500
60°	15,000
55°	13,000
50°	11,000
45°	8,000

* Ultimate rating regardless of width.
Note: Lifting in a vertical hitch reduces the ratings by half.

WEAR PADS

The Importance of Wear Protection

Wear Protection products like wear pads extend the life of slings by reducing exposure to abrasion and other similar forms of damage. Wear pads also help protect load surfaces from damage along points of contact, particularly when used with steel slings. **Always inspect slings by following the safety bulletin provided with each sling.**

Features and Benefits

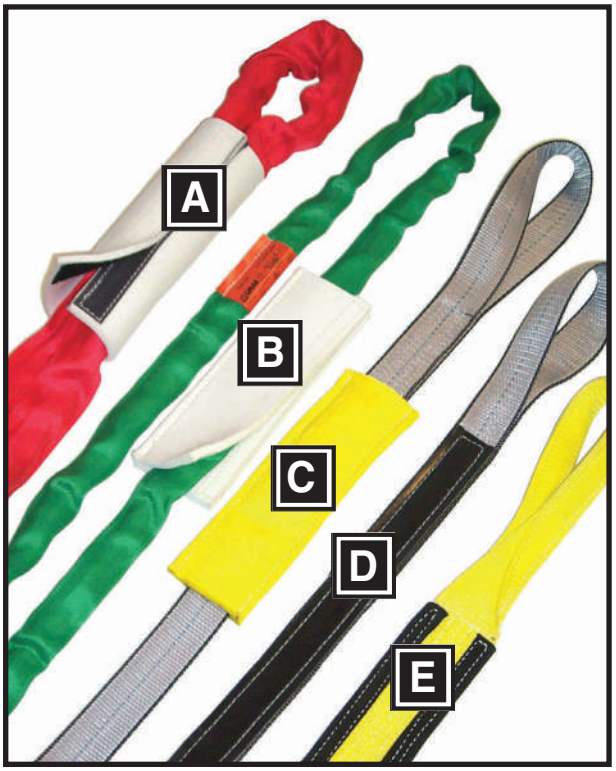
Sling and Load Damage Protection: Wear Protection can help to protect both the sling and the load from wear damage.

Construction Materials: A variety of padding materials are available to best suit the needs of each application.

Ease of Attachment: Some styles use hook and loop fastening to allow quick attachment and to help keep the position on the sling.

Ease of Sling Inspection: Length selection and other pad options are available that allow easy access to slings for frequent inspections.

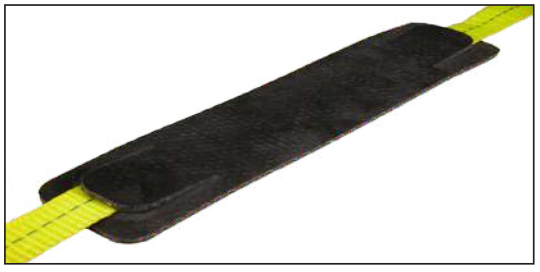
Available Sizes: Available in a variety of lengths and widths.



A: Tubular Quick Sleeve – Pukka Pad Material
B: Flat Quick Sleeve – Pukka Pad Material
C: Flat Sewn Sleeve – *Webmaster* 1600
D: Sewn-On Wear Pad *Sling Shield*s PVC
E: Edge Guard – Texturized Nylon

Full Body Wrap

Flat Quick Sleeve



PVC Pad

Tubular Quick Sleeve

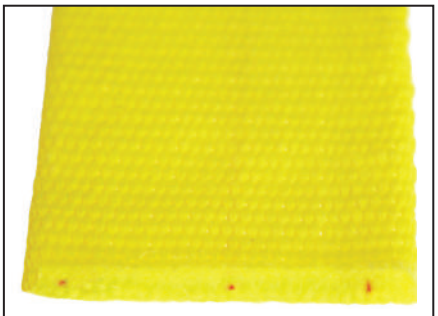
WEAR PAD STYLES

SLEEVE TYPE Preferred for slings that are used in a variety of lifting situations. Easily repositioned along sling body to accommodate loads of various sizes. Sleeve allows sling to adjust to lift without movement against load edge.		
Tubular Quick Sleeve	Use with: Tuflex Roundslings Chain & Wire Rope Available Materials: All (except PVC)	High strength hook & loop sleeve for secure positioning. Tubular design gives maximum usable surface and maximum pad life.
Flat Quick Sleeve	Use with: All Slings Available Materials: All (except PVC)	Hook & loop sleeve allow easy installation and removal. Friction keeps sleeve in place when rigging.
Flat Sewn Sleeve	Use with: All Slings Available materials: All (except PVC)	Preferred for long-term use on single sling. May be repositioned as needed along sling length. May require factory installation for slings with hardware and single leg Tuflex.
Poly Pads	Use with: Web Slings Available Materials: PVC	Slides easily along sling length for convenient sling protection. Must be installed at factory for web slings with hardware.
SEWN-ON TYPE For use on web slings where repetitive lifting situations expose the sling to damage. Eliminates the need to position pad before each lift.		
Sewn-On Wear Pad	Use with: Web slings only Available Materials: All except ballistic nylon	For sling protection at expected wear points. Can be sewn anywhere on the sling, be any length and be on one or both sides.
Edge Guard	Use with: Web slings only Available Materials: Texturized nylon Light leather	Helps protect both edges of the sling. Placement on the sling per customer requirement.

WEAR PAD MATERIALS

Pukka-Pads (P)

A high density polyester felt.

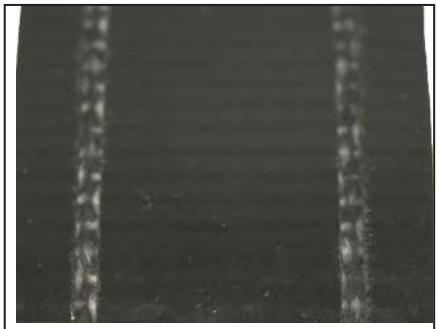


***Webmaster* 1600**

Polyester or Nylon

Heavy Leather (HL)

Genuine top-grain cowhide
May require multiple pieces.



PVC Belting (PVC)

Non-absorbent conveyor type belting.

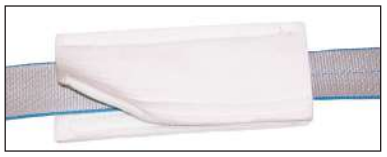
Texturized Buffer (TN)

A bulked fiber is used to produce a thin webbing with good abrasion resistance.

Ballistic Nylon (BN)

A 2-ply wear resistant fabric made of bulked nylon fiber, appropriate for wider sleeves.

WEAR PROTECTION



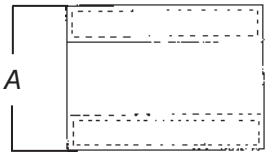
FLAT QUICK SLEEVES

Flat Quick Sleeve Widths & Appropriate Sling Sizes

Part Number	Sleeve Width[1] (in.)	Web Sling Width[2] (in.)	*Tuflex*				*Keyflex*		Wire Rope Sling Dia. (in.)	Chain Sling Size (in.)
			Single Leg EN	Double Leg EE	6-Part Braid B6E	8-Part Braid B8E	Single Leg EN	Double Leg EE		
3FQS	3	1	–	–	–	–	10K	–	1/4 – 7/16	–
4FQS	4	2	30 – 60	30	–	–	15K – 20K	–	1/2 – 3/4	7/32 – 9/32
5FQS	5	3	90 – 150	60	–	–	25K – 30K	10K	7/8 – 1-1/8	3/8
6FQS	6	4	180 – 240	90 – 120	30	–	40K – 80K	15K – 20K	1-1/4 – 1-1/2	1/2
8FQS	8	6	360	150 – 240	60	30	90K – 125K	25K – 30K	1-3/4 – 2-1/4	5/8
10FQS	10	8	600 – 800	360	90 – 120	60 – 90	150K – 175K	40K – 80K	2-1/2	3/4 – 7/8
12FQS	12	10	1000	600	150 – 180	120 – 150	200K	90K – 125K	–	1

[1] Width of sleeve depends on the material being used. This chart is based on using Pukka Pad material.
[2] 1-Ply or 2-Ply only. For 3-Ply or 4-Ply, go to the next larger sleeve.

TUBULAR QUICK SLEEVES



Tubular Quick Sleeve Widths & Appropriate Sling Sizes

Part Number	Open Sleeve Width[1] (A) (in.)	*Tuflex*				*Keyflex*		*Wire Rope Sling Dia. (in.)*	*Chain Sling Size (in.)*
		Single Leg EN	Double Leg EE	6-Part Braid B6E	8-Part Braid B8E	Single Leg EN	Double Leg EE		
4TQS	4	–	–	–	–	–	–	1/4	–
5TQS	5	–	–	–	–	–	–	5/16 – 1/2	–
6TQS	6	30 – 60	–	–	–	10K	–	9/16 – 7/8	7/32
8TQS	8	90 – 150	30 – 60	–	–	15K – 30K	–	1 – 1-1/2	9/32 – 3/8
10TQS	10	180 – 240	90 – 120	30 – 60	30	40K – 50K	10K – 15K	1-3/4 – 2	1/2 – 5/8
12TQS	12	360	150 – 180	90	60	60K – 80K	20K – 30K	2-1/2	3/4
14TQS	14	600 – 800	240	–	90	90K – 125K	40K – 50K	–	7/8 – 1
16TQS	16	1000	360	120 – 150	120	150K – 175K	60K – 80K	–	1-1/4
18TQS	18	–	600	180 – 240	150 – 180	200K	90K – 100K	–	–
20TQS	20	–	800	–	–	–	125K	–	–
22TQS	22	–	1000	360	240	–	150K – 175K	–	–
24TQS	24	–	–	–	–	–	200K	–	–
26TQS	26	–	–	600	360	–	–	–	–
30TQS	30	–	–	800	600	–	–	–	–
34TQS	34	–	–	1000	800	–	–	–	–

[1] Tubular Pukka Pads not available under 10" open sleeve width.

Edge Guard (Code EG)

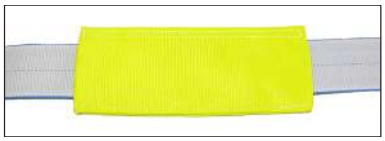
Texturized Web

Sewn-On Wear Pads (Code WP)

PVC

WEAR PROTECTION

STANDARD SEWN SLEEVES



Sewn Sleeve Widths & Appropriate Sling Sizes

Part No.	Sleeve Width[1] (in.)	Web Sling Width[2] (in.)	*Tuflex*				*Keyflex/DynaFlex*		Wire Rope Sling Dia (in.)	Chain Sling Size (in.)
			Single Leg EN	Double Leg EE	6-Part Braid B6E	8-Part Braid B8E	Single Leg	Double Leg		
3SS	3	1	30 – 60	–	–	–	–	–	1/4 – 3/4	7/32
4SS	4	2	90 – 150	30 – 60	–	–	10 – 15K	–	7/8 – 1-1/8	9/32 – 3/8
5SS	5	3	180 – 240	90 – 120	30	–	20 – 30K	–	1-1/4 – 1-1/2	1/2
6SS	6	4	360	150 – 180	60	30	40 – 80K	10 – 15K	1-3/4	5/8
8SS	8	6	600 – 800	240 – 360	90 – 120	60	90 – 100K	20 – 40K	2 – 2-1/2	3/4 – 7/8
10SS	10	8	1000	600	150 – 180	90 – 150	125 – 175K	50 – 80K	–	1
12SS	12	10	–	800 – 1000	240	180	200K	90 – 125K	–	1-1/4

[1] Width of sleeve depends on the material being used. This chart is based on using Pukka Pad material.
[2] Chart is for 1-ply or 2-ply slings. For 3-ply or 4-ply slings, use the next larger sleeve.

POLY PADS

Easily movable poly pads are made of tough, woven polyester fabric impregnated and coated with PVC. Easy to position on both web slings and tiedowns. Poly pads are designed to give protection when lifting around load edges or abrasive loads.

Part Number	Poly Pad	Web Width (in.)
60115	3-1/2 X 12	1 – 2
60116	6 X 12	3 – 4

How To Order

1. Choose code for width and style

TQS Tubular Quick Sleeve
FQS Flat Quick Sleeve
SS Flat Sewn Sleeve
WP Sewn-On Wear Pad
EG Edge Guard
_____ Poly Pad (Use Part No. above)

2. Choose a Material

P 5/16" Heavy Duty Pukka-Pad
N *Webmaster* 1600 Nylon
HL Heavy Leather
TN Texturized Buffer
BN Ballistic Nylon (Tubular only)
PVC (Sewn-on Wear Pads only)

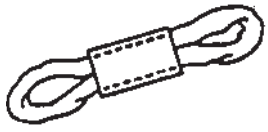
3. Length of Sleeve

(If sewn-on pad, describe position on sling)
_____ Feet

4. For Use On

____ Web Sling (Code or Width)
____ Tuflex ____ Single-Leg (Code) _____
____ Double-Leg (Code) _____

Single-Leg



Double-Leg

____ Chain Sling Size _____ inches
____ Wire Rope Sling Dia. _____ inches

WARNING

Wear pads may not prevent cutting or other sling damage. To avoid severe personal injury or death, keep all personnel clear of loads about to be lifted, and suspended loads.

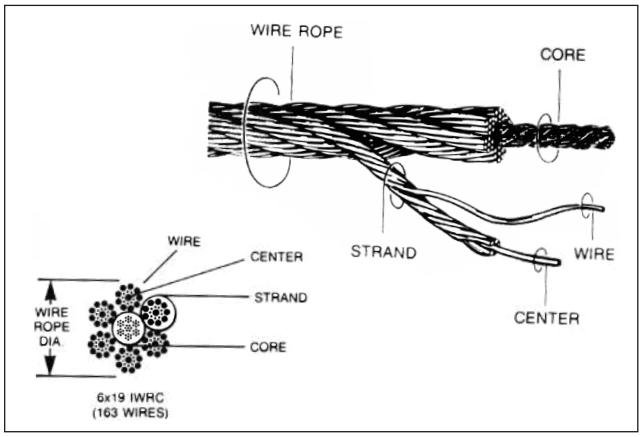
WIRE ROPE AND SLING BASICS

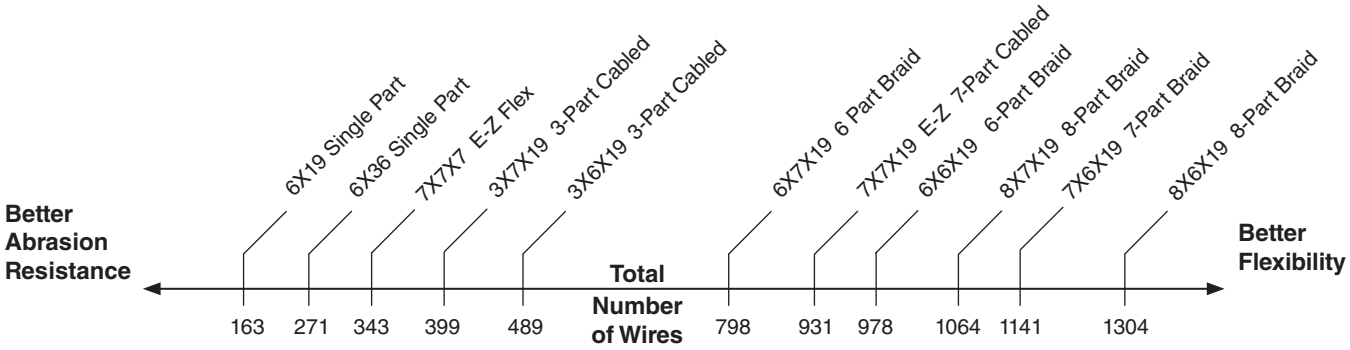
Wire rope slings are both flexible and resistant to abrasion. These characteristics are determined by the rope construction. Fewer wires result in larger diameter wires, better abrasion resistance, and reduced flexibility. More wires result in decreased wire diameter, reduced abrasion resistance, increased flexibility, and kink resistance.

The scale below shows the relative position of the sling constructions shown in this catalog as they pertain to abrasion resistance and flexibility.

EIPS = Extra Improved Plow Steel
FC = Fiber Core
IWRC = Independent Wire Rope Core

Wire Rope Construction





WIRE ROPE SLINGS

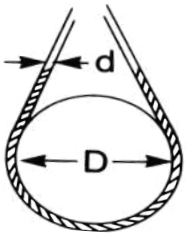
Features and Benefits

- *Tuff-Tag* for capacity and serial numbered identification for traceability and compliance with OSHA.
- Least expensive (per capacity), of all steel slings.
- Use of IWRC EIPS rope gives 15% greater capacity than IWRC IP (Improved Plow) ropes.
- Countless combinations of sling terminations: hooks, chokers, and thimbles are available to fit specific lift requirements.

Environmental Considerations

- IWRC must not be used at temperatures above 400°F.
- FC must not be used at temperatures above 180°F.
- Fiber core ropes should not be subjected to degreasing solvents.

D/d - Basket Hitch Effect



Tests have shown that when a sling body is bent around a diameter, the strength of the sling is decreased.

D/d ratio is the ratio of the diameter around which the sling is bent, divided by the body diameter of the sling.

The capacities in this catalog are based on the minimum D/d ratios that appear below each of the capacity tables. For more severe bending conditions, contact *Lift-All* for revised capacities.

Effect of Shackle Pin or Crane Hook on Sling Eye

Damage to slings can occur if the wrong size pin or hook is used. The width of the hook should never exceed the natural inside width of the eye.

The eye dimension for each type and size of the slings are shown in the capacity tables of this catalog. If your pin or hook is large, request an oversized eye.

HOW TO ORDER WIRE ROPE SLINGS

Prior to sling selection and use, review and understand the General Information section in this catalog. We have developed the following wire rope sling code system to help you in ordering these products.

114 637 I EE X 12

Define rope diameter. 1-1/4" shown in example.

Sling Length (ft) Refer to drawings on following pages on how to measure.

Leave blank for 6X19 IWRC EIPS construction. If other rope is desired, enter **637** for a 6X37 construction, or **EZ** for cable laid rope.

Insert an "**I**" for slings made using import rope. Leave blank for domestic rope.

Show end terminations or other combinations. See below or use the following:

Eye & Eye	– **EE**
Bridles: 2-Leg	– **2LB**
3-Leg	– **3LB**
4-Leg	– **4LB**
Endless	– **EN**
Braids: 3-Part	– **3PEE**
6-Part	– **6PEE**
7-Part	– **7PEE**
8-Part	– **8PEE**

'X'

Note: Proof-testing with certification is available for all slings at an additional charge.

Standard Combinations


Eye & Eye (E/E)


Eye & Thimble (E/T)


Eye & Hook (E/TH)


Eye & Crescent Thimble (E/CT)


Eye & Slip-Thru Thimble (E/ST)


Thimble & Thimble (T/T)


Thimble & Hook (T/TH)


Thimble & Crescent Thimble (T/CT)


Thimble & Slip-Thru Thimble (T/ST)


Crescent Thimble & Hook (CT/TH)


Crescent Thimble & (CT/CT) Crescent Thimble


Slip-Thru Thimble & Hook (ST/TH)


Slip-Thru Thimble & Slip-Thru Thimble (ST/ST)

Sliding Choker


Eye & Thimble (E/T/SCH)


Eye & Eye (E/E/SCH)

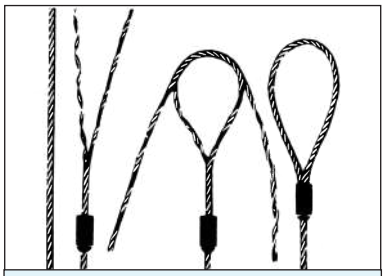
Tolerances and Minimum Lengths
Refer to tables for tolerances and minimum lengths.

Stretch
Approximately 1% at rated capacity.

Wire Rope Class
Standard rope classes are shown for each type and size of sling in the charts. Specific rope constructions are available upon request.

PERMALOC™ WIRE ROPE SLINGS

Lift-All Permaloc slings are made using the Flemish Eye splice technique to form the eyes. Unlike the simple return loop method that places 100% of its strength on the swaged sleeve, *Permaloc* slings have reserve strength should the sleeve become damaged in use.


Flemish Eye splice technique

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

- Reserve strength: Integrity of eyes not solely dependent upon steel sleeves.
- IWRC resists crushing better than FC ropes.

Saves Money

- When specified, thimble eyes protect wire rope from wear for increased life.
- Good abrasion resistance for longer life.

IWRC (Independent Wire Rope Core) Fiber core available at reduced capacities

Wire Rope Class		Rope Dia. (in.)	EIPS IWRC Rated Capacity* (tons) Vertical	Choker	Vertical Basket	[1]Min. Sling Length	Standard Eye Size W X L (in.)	Thimbled Eye Size W X L (in.)	Eye Hook Cap. (tons)	Crescent Thimble Eye Size W X L (in.)	Slip Thru Thimble Eye Size W X L (in.)	Sliding Choker Hook ** (in.)
	6X19 EIPS IWRC	1/4	.65	.48	1.3	1'-6"	2 X 4	0.88 X 1.63	1	2 X 4	2.13 X 4.13	3/8
		5/16	1.0	.74	2.0	1'-9"	2.5 X 5	1.06 X 1.88	1	2 X 4	2.50 X 4.13	3/8
		3/8	1.4	1.1	2.9	2'-0"	3 X 6	1.13 X 2.13	1.5	2 X 4	2.50 X 4.13	3/8
		7/16	1.9	1.4	3.9	2'-3"	3.5 X 7	1.25 X 2.25	2	2 X 5	2.38 X 4.38	1/2
		1/2	2.5	1.9	5.1	2'-6"	4 X 8	1.5 X 2.75	3	2.25 X 6	2.38 X 4.38	1/2**
		9/16	3.2	2.4	6.4	2'-9"	4.5 X 9	1.5 X 2.75	4.5	2.25 X 7	2.38 X 4.38	5/8
		5/8	3.9	2.9	7.8	3'-0"	5 X 10	1.75 X 3.25	4.5	2.75 X 7	3.38 X 6.63	5/8**
		3/4	5.6	4.1	11	3'-6"	6 X 12	2 X 3.75	7	3.25 X 8.5	3.38 X 6.63	3/4**
		7/8	7.6	5.6	15	4'-0"	7 X 14	2.25 X 4.25	11	4.5 X 10	3.75 X 7.13	7/8
		1	9.8	7.2	20	4'-6"	8 X 16	2 X 4.5	11	4.5 X 11.5	3.75 X 7.13	1
		1-1/8	12	9.1	24	5'-0"	9 X 18	2.88 X 5.13	15	4.88 X 13	4.38 X 8.38	1-1/8
	6X37 EIPS IWRC	1-1/4	15	11	30	5'-6"	10 X 20	3.5 X 6.5	15	5.5 X 14.5	4.38 X 8.38	1-1/4
		1-3/8	18	13	36	6'-0"	11 X 22	3.5 X 6.25	22	6 X 16	5 X 9.5	1-3/8
		1-1/2	21	16	42	7'-0"	12 X 24	3.5 X 6.25	22	6 X 17.5	5 X 9.5	1-1/2**
		1-3/4	28	21	57	8'-0"	14 X 28	4.5 X 9	30	7 X 20	6.75 X 11.75	–
		2	37	28	73	9'-0"	16 X 32	6 X 12	37	7.X 23.5	8 X 14.5	–
		2-1/4	44	35	89	10'-0"	18 X 36	7 X 14	45	8.5 X 26	8 X 15.5	–
		2-1/2	54	42	109	11'-0"	20 X 40	–	–	8.5 X 29.5	–	–

[1] Minimum sling length when using standard eyes.

** See sliding choker hook capacities in Hardware section when using these hooks.

Note: Larger diameter slings available. Basket ratings are based on a minimum D/d of 25.

Length Tolerances (Single Part Wire Rope Slings): Standard length tolerance is plus or minus two rope diameters, **OR** plus or minus 0.5% of the sling length, whichever is greater.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

PERMALOC™ BRIDLE SLINGS

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

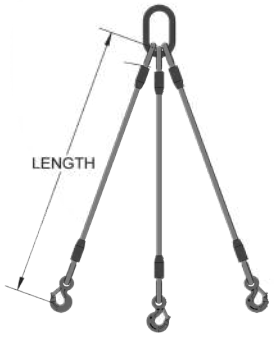
- Bridles provide better load control and balance.
- Independent wire rope core resists crushing.
- Alloy steel hardware assures long life.
- Thimble eyes protect wire rope from wear for increased life.
- Reduces load damage by using fixed points on load.
- Easier rigging provided when hooking into fixed lifting points.

Bridle Slings
(With Single Part Body)

6X19

6X37

2-Leg Bridle



3-Leg Bridle

4-Leg Bridle

	Rope Dia. (in.)	[1]Min. Sling Length	Eye Hook Cap. (tons)	Rated Capacity* (tons) 60°	45°	30°	Oblong Link Stock Dia. (in.)	Rated Capacity* (tons) 60°	45°	30°	Oblong Link Stock Dia. (in.)	Rated Capacity* (tons) 60°	45°	30°	Oblong Link Stock Dia. (in.)
6X19 EIPS IWRC	1/4	1'-3"	1	1.1	.91	.65	1/2	1.7	1.4	.97	1/2	2.2	1.8	1.3	1/2
	5/16	1'-6"	1	1.7	1.4	1.0	1/2	2.6	2.1	1.5	1/2	3.5	2.8	2.0	3/4
	3/8	1'-8"	1-1/2	2.5	2.0	1.4	1/2	3.7	3.0	2.2	3/4	5.0	4.1	2.9	3/4
	7/16	1'-10"	2	3.4	2.7	1.9	3/4	5.0	4.1	2.9	3/4	6.7	5.5	3.9	1
	1/2	2'-0"	3	4.4	3.6	2.5	3/4	6.6	5.4	3.8	1	8.8	7.1	5.1	1
	9/16	2'-2"	4-1/2	5.5	4.5	3.2	3/4	8.3	6.8	4.8	1	11	9.0	6.4	1-1/4
	5/8	2'-4"	4-1/2	6.8	5.5	3.9	1	10	8.3	5.9	1-1/4	14	11	7.8	1-1/2
	3/4	2'-9"	7	9.7	7.9	5.6	1-1/4	15	12	8.4	1-1/2	19	16	11	1-3/4
	7/8	3'-3"	11	13	11	7.6	1-1/4	20	16	11	1-1/2	26	21	15	2
	1	3'-6"	11	17	14	9.8	1-1/2	26	21	15	1-3/4	34	28	20	2-1/4
	1-1/8	4'-0"	15	21	17	12	1-1/2	31	26	18	1-3/4	42	34	24	2-3/4
6X37 EIPS IWRC	1-1/4	4'-6"	15	26	21	15	1-3/4	38	31	22	2	51	42	30	2-3/4
	1-3/8	5'-0"	22	31	25	18	1-3/4	46	38	27	2-1/4	–	–	–	–
	1-1/2	5'-6"	22	37	30	21	2	55	45	32	2-1/4	–	–	–	–
	1-3/4	6'-6"	30	49	40	28	2-1/4	–	-	–	–	–	–	–	–
	2	8'-0"	37	63	52	37	2-3/4	–	–	–	–	–	–	–	–

[1] Minimum length based on thimbled eye and eye. Other fittings and latches are available upon request.

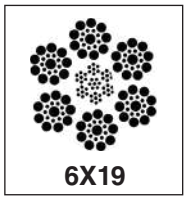
Length Tolerances (Single Part Wire Rope Slings): Standard length tolerance is plus or minus two rope diameters, **OR** plus or minus 0.5% of the sling length, whichever is greater. The legs of bridle slings, or matched slings are normally held to within one rope diameter.

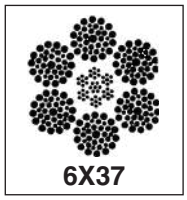
Import hooks with latches standard on import rope bridles. Domestic hooks with optional latches are standard on domestic rope bridles.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

ENDLESS SLINGS

Made from one 6X19 or 6X37 EIPS IWRC wire rope, mechanically joined with steel sleeves. Achieves higher capacities at a lower cost.


6X19


6X37

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

- Load stability and balance can be achieved by spreading sling legs in a basket or choker hitch.

Saves Money

- Wear points can be shifted to extend sling life.
- The most versatile style of sling - fewer slings to inventory.

Saves Time

- More flexible than eye slings of comparable strength.
- Ideal for turning loads.

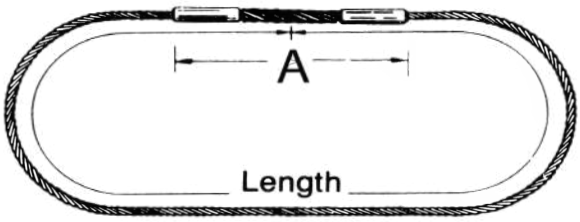
⚠ WARNING

Do not lift with hook in splice area as sling damage may occur.

Endless – Mechanical Splice

Rope Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Minimum Sling Length	Splice Length A (in.)
1/4	1.0	.71	2.0	3'-0"	8
5/16	1.6	1.1	3.1	3'-0"	8
3/8	2.3	1.6	4.5	3'-0"	8
7/16	3.1	2.1	6.1	6'-0"	10
1/2	3.9	2.8	7.9	6'-0"	10
9/16	5.0	3.5	10	6'-0"	10
5/8	6.1	4.3	12	6'-0"	10
3/4	8.8	6.2	18	8'-0"	16
7/8	12	8.3	24	8'-0"	18
1	15	11	31	8'-0"	20

Do not lift with hook in splice area as sling damage may occur.



Order length by circumference

Notes:
1. Three sleeves used on 3/4" diameter and larger.
2. Vertical and Basket ratings are based on a minimum D/d of 5.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

E-Z FLEX™ CABLE LAID SLINGS

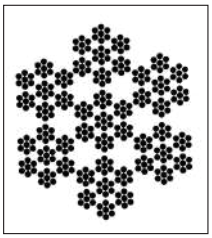
E-Z Flex slings are made from a machine laid rope that consists of seven individual, galvanized ropes.

Features and Benefits

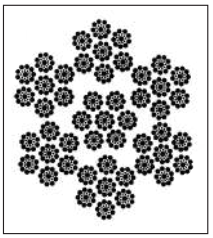
Maintains all the basic *Lift-All* wire rope sling features plus ...

Saves Money

- Superior flexibility - resists damage from kinking.
- Galvanized coating for corrosion resistance and longer life.

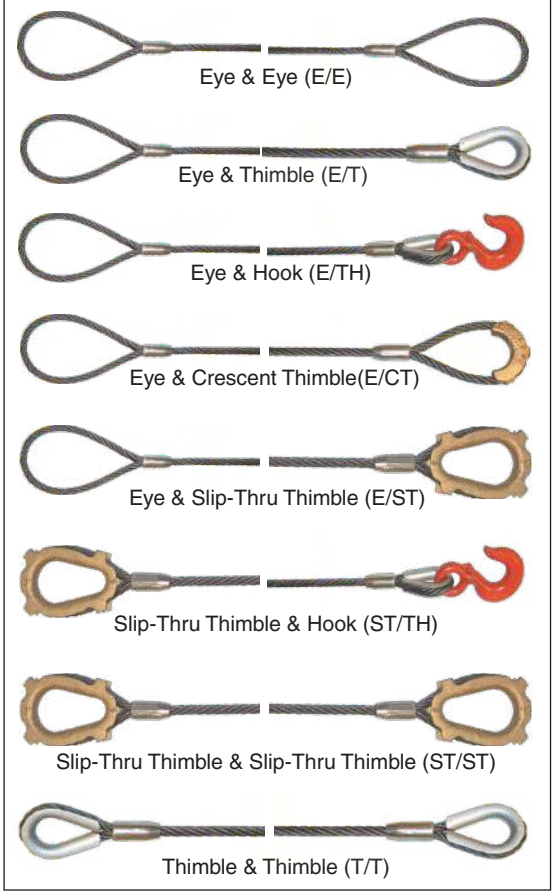


7X7X7



7X7X19

Standard Combinations



	Rope Diameter (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	**Min. Sling Length	Standard Eye Size (in.) W X L	Thimbled Eye Size (in.) W X L	Eye Hook Cap. (tons)	Crescent Thimble Eye Size (in.) W X L	Slip Thru Thimble Eye Size (in.) W X L	Sliding Choker Hook (in.)
7X7X7	1/4	.50	.34	1.0	1'-6"	2 X 4	.88 X 1.63	1	2 X 4	2.13 X 4.13	3/8
	3/8	1.1	.74	2.2	2'-0"	3 X 6	1.13 X 2.125	1.5	2 X 4	2.13 X 4.13	3/8
	1/2	1.9	1.3	3.7	2'-6"	4 X 8	1.5 X 2.75	2	2.25 X 6	2.38 X 4.38	1/2
	5/8	2.8	1.9	5.5	3'-0"	5 X 10	1.75 X 3.25	3	2.75 X 7	3.38 X 6.63	5/8
7X7X19	3/4	4.1	2.8	8.1	3'-6"	6 X 12	2 X 3.75	4.5	3.25 X 8.5	3.38 X 6.63	3/4
	7/8	5.4	3.7	11	4'-0"	7 X 14	2.25 X 4.25	7	4.5 X 10	3.75 X 7.13	7/8
	1	6.9	4.7	14	4'-6"	8 X 16	2.5 X 4.5	7	4.5 X 11.5	3.75 X 7.13	1
	1-1/8	8.3	5.8	17	5'-0"	9 X 18	2 .88 X 5.13	11	4.88 X 13	4.38 X 8.38	1-1/8
	1-1/4	9.9	7.0	20	5'-6"	10 X 20	3.5 X 6.5	11	5.5 X 14.5	4.38 X 8.38	1-1/4
	1-1/2	13	9.1	26	7'-0"	12 X 24	3.5 X 6.25	15	6 X 17.5	5 X 9.5	1-1/2

**Minimum sling length when using standard eyes.
Basket ratings are based on a minimum D/d of 10.

Other fittings are available upon request.
Hooks with latches are standard on import assemblies; optional on domestic.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

E-Z FLEX™ TWO LEG BRIDLE SLINGS

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

- Bridles provide better load control and balance.

Saves Money

- Excellent flexibility - resists damage from kinking.
- Galvanized coating for corrosion resistance and longer life.
- Alloy steel hardware assures long life.

Saves Time

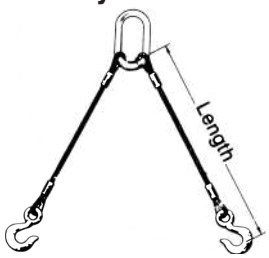
- Easier rigging when hooking into fixed lifting points.
- Sliding choker hook speeds rigging of bundled materials.

⚠ WARNING

Do not lift with hook in splice area as sling damage may occur.

E-Z FLEX 2-Leg Bridles

Eye Hook



Choker

	Rope Dia. (in.)	Rated Capacity* (tons) 60°	45°	30°	60°	45°	30°	**Min. Sling Length	Oblong Link Stock Dia. (in.)	Eye Hook Cap. (tons)	Sliding Choker Hook (in.)
7X7X7	1/4	.87	.71	.50	.60	.49	.34	1'-3"	1/2	1	3/8
	3/8	1.9	1.5	1.1	1.3	1.0	.74	1'-8"	1/2	1-1/2	3/8
	1/2	3.2	2.6	1.9	2.2	1.8	1.3	2'-0"	3/4	2	1/2
	5/8	4.8	3.9	2.8	3.3	2.7	1.9	2'-4"	1	3	5/8
7X7X19	3/4	7.0	5.8	4.1	4.8	3.9	2.8	2'-9"	1	4-1/2	3/4
	7/8	9.4	7.6	5.4	6.4	5.2	3.7	3'-3"	1	7	7/8
	1	12	9.7	6.9	8.2	6.7	4.7	3'-6"	1 1-/4	7	1
	1-1/8	14	12	8.3	10	8.2	5.8	4'-0"	1-1/2	11	1-1/8
	1-1/4	17	14	9.9	12	9.8	7.0	4'-6"	1-1/2	11	1-1/4
	1-1/2	22	18	13	15	13	9.1	5'-6"	2	15	1-1/2

** Minimum length based on thimbled eye and eye hook.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

E-Z FLEX™ ENDLESS SLINGS

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

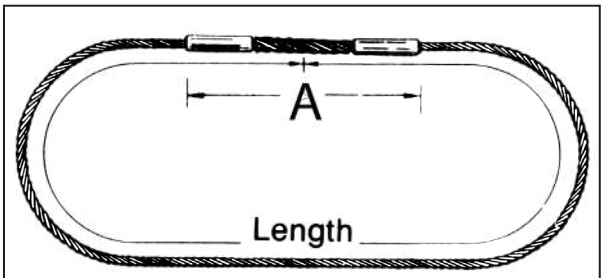
- Load stability and balance achieved by spreading sling legs in basket and choker hitches.

Saves Money

- Wear points can be shifted to extend sling life.
- Smaller rope diameter per capacity increases flexibility.

Saves Time

- Ideal for turning loads.
- More flexible than eye slings of comparable strength.



Order length by circumference

Note: Three sleeves used on 3/4" diameter and larger

E-Z FLEX Endless Slings

	Rope Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Splice Length A (in.)
7X7X7	1/4	.83	.54	1.7	2'-3"	10
	3/8	1.8	1.2	3.6	3'-0"	10
	1/2	3.0	2.0	6.1	4'-0"	12
	5/8	4.6	3.0	9.1	5'-0"	12
7X7X19	3/4	6.7	4.3	13	6'-0"	18
	7/8	8.9	5.8	18	7'-0"	18
	1	11	7.3	23	8'-0"	20

Vertical and Basket ratings are based on a minimum D/d of 5.

⚠ WARNING

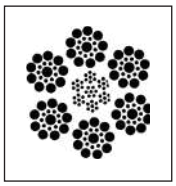
Do not lift with hook in splice area as sling damage may occur.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

HIDDEN TUCK HAND SPLICED SLINGS

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

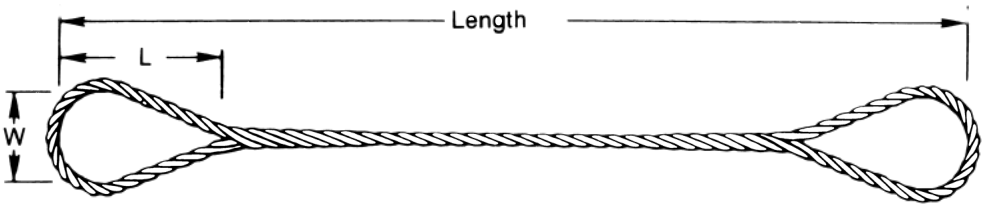


Promotes Safety

- Hidden Tuck buries wire ends to avoid snags and injuries.

Saves Time

- No steel sleeves to catch under load.



Hidden Tuck Hand Spliced – Fiber Core

	Rope Dia. (in.)	EIPS FC Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Standard Eye Size W x L (in.)
6X19 EIPS FC	1/4	.54	.42	1.1	2'-0"	3 X 6
	5/16	.83	.66	1.7	2'-3"	3 X 6
	3/8	1.2	.94	2.4	2'-6"	3 X 6
	7/16	1.6	1.3	3.2	2'-9"	3.5 X 7
	1/2	2.0	1.6	4.0	3'-0"	4 X 8
	9/16	2.5	2.1	5.0	3'-6"	4.5 X 9
	5/8	3.1	2.6	6.2	4'-0"	5 X 10
	3/4	4.3	3.7	8.6	4'-6"	6 X 12
	7/8	5.7	5.0	11	5'-6"	7 X 14
	1	7.4	6.4	15	6'-0"	8 X 16

Basket ratings are based on a minimum D/d of 15.

* **WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

MULTI-PART CABLED SLINGS

3-Part Cabled

Constructed by hand cabling one rope to form a 3-part body with 2-part eyes.

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus …

Saves Money

- Good abrasion resistance increases useful life of sling.
- Resists damage from kinking.

Saves Time

- Flexible and easy to handle.
- Small sleeve over component rope won't get in the way.


3X7X19


3X6X19

3-Part Cabled

Component Rope (in.)		Sling Body Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Standard Eye W X L (in.)	Crescent Thimble Eye Size W X L (in.)	Slip-Thru Thimble Eye Size W X L (in.)
7X19 GAC	3/16	3/8	1.2	.82	2.4	2'-0"	3 X 6	2 X 4	2.13 X 4.13
	1/4	1/2	1.9	1.3	3.9	2'-6"	4 X 8	2.25 X 4	2.38 X 4.38
	5/16	5/8	3.0	2.1	6.0	3'-0"	5 X 10	2.75 X 5	3.38 X 6.63
	3/8	3/4	4.3	2.9	8.6	3'-6"	6 X 12	3.25 X 6	3.38 X 6.63
6X19 EIPS IWRC	7/16	7/8	5.8	4.0	12	4'-0"	7 X 14	4.5 X 9	3.75 X 7.13
	1/2	1	7.6	5.2	15	4'-6"	8 X 16	4.5 X 9	3.75 X 7.13
	9/16	1-1/8	9.6	6.6	19	5'-0"	9 X 18	4.88 X 10	4.38 X 8.38
	5/8	1-1/4	12	8.0	23	5'-6"	10 X 20	5.5 X 11	4.38 X 8.38
	3/4	1-1/2	17	11	34	7'-0"	11 X 22	6 X 12	5 X 9.5

Basket ratings based on a minimum D/d of 10 (using sling body dia.).

7-Part Cabled

Constructed by hand cabling one rope to form a 7-part body with 4-part eyes.

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ....

Saves Money

- Resists damage from kinking.

Saves Time

- Superior flexibility makes sling easy to rig and use.
- Small sleeve over component rope won't get in the way.


7X7X19


7X6X19

7-Part Cabled

Component Rope Dia. (in.)		Sling Body Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Standard Eye W X L (in.)	Crescent Thimble Eye Size W X L (in.)	Slip-Thru Thimble Eye Size W X L (in.)
7X19 GAC	1/8	3/8	1.3	.91	2.6	2'-0"	3 X 6	2 X 4	2.13 X 4.13
	3/16	9/16	2.8	1.9	5.6	2'-6"	4 X 8	2.25 X 6	2.38 X 4.38
	1/4	3/4	4.7	3.2	9.3	3'-0"	5 X 10	2.75 X 7	3.38 X 6.63
	5/16	15/16	6.5	4.5	13	3'-6"	6 X 12	3.25 X 8.50	3.75 X 7.13
	3/8	1-1/8	9.6	6.6	19	4'-0"	7.5 X 15	4.50 X 10	3.75 X 7.13
6X19	7/16	1-5/16	14	9.3	27	4'-6"	9 X 18	4.88 X 13	4.38 X 8.38
	1/2	1-1/2	18	12	35	5'-0"	10 X 20	5.50 X 14.50	4.38 X 8.38

Basket ratings based on a minimum D/d of 10 (using sling body dia.). See first page of WIRE ROPE section.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

MULTI-PART BRAIDED SLINGS

6-Part Flat Braid

Constructed by braiding one rope to form a 6-part flat body with web seized eyes.

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

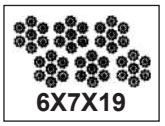
- Wide bearing surface provides better load control and balance.
- Resists rotation, improving load control.

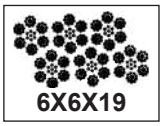
Saves Money

- Resists damage from kinking.
- Reduces load damage.

Saves Time

- Flexible - easy to rig.





6-Part Flat Braid

	Component Rope Dia. (in.)	Sling Body Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Standard Eye W X L (in.)	Crescent Thimble Eye Size W X L (in.)	Slip-Thru Thimble Eye Size W X L (in.)
7X19 GAC	1/8	9/16 X 3/8	.84	.74	1.7	2'-0"	3 X 6	2 X 4	2.13 X 4.13
	3/16	13/16 X 1/2	1.8	1.5	3.5	3'-0"	4 X 8	2.25 X 7.0	2.38 X 4.38
	1/4	1-1/8 X 11/16	2.9	2.6	5.9	3'-6"	5 X 10	3.25 X 8.5	3.38 X 6.63
	5/16	1-3/8 X 7/8	4.1	3.6	8.2	4'-6"	6 X 12	4.5 X 11.5	3.38 X 6.63
	3/8	1-11/16 X 1	6.0	5.3	12	5'-0"	7 X 14	4.88 X 13	3.75 X 7.13
6X19 EIPS IWRC	7/16	2 X 1-3/16	8.6	7.5	17	6' 0"	8 X 16	6.0 X 16	3.75 X 7.13
	1/2	2-1/4 X 1-5/16	11	9.8	22	6' 6"	9 X 18	6.0 X 17.5	4.38 X 8.38
	9/16	2-1/2 X 1-1/2	14	12	28	7' 0"	10 X 20	7.0 X 20	4.38 X 8.38
	5/8	2-13/16 X 1-11/16	17	15	35	8' 0"	11 X 22	7.0 X 23.5	5.0 X 9.50
	3/4	3-3/8 X 2	25	22	49	9' 0"	12 X 24	8.5 X 26	6.75 X 11.75

Basket ratings based on a minimum D/d of 10 (using sling body dia.). See 1st pg. of WIRE ROPE sec.

8-Part Round Braid

Constructed by braiding one rope to form an 8-part round body with 4-part web seized eyes.

Features and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

Promotes Safety

- Resists rotation, for improved load control.

Saves Money

- The most kink-resistant wire rope sling available.
- Greater flexibility for reduced load damage.

Saves Time

- Flexible - easy to rig.

8-Part Round Braid

	Component Rope Dia. (in.)	Sling Body Dia. (in.)	Rated Capacity* (tons) Vertical	Choker	Vertical Basket	Min. Sling Length	Standard Eye W x L (in.)	Crescent Thimble Eye Size W x L (in.)	Slip Thru Thimble Eye Size W x L (in.)
7X19 GAC	1/8	9/16	1.1	1.0	2.2	2'-0"	3 X 6	2 X 4	2.13 X 4.13
	3/16	13/16	2.4	2.1	4.7	3'-0"	4 X 8	2.25 X 6	2.38 X 4.38
	1/4	1-1/8	3.9	3.4	7.8	3'-6"	5 X 10	3.25 X 8	3.38 X 6.63
	5/16	1-3/8	5.5	4.8	11	4'-6"	6 X 12	4.50 X 10	3.75 X 7.13
	3/8	1-1/16	8.1	7.1	16	5'-0"	7 X 14	4.63 X 12	3.75 X 7.13
6X19 EIPS IWRC	7/16	2	11	10	23	6' 0"	8 X 16	5.50 X 14	4.38 X 8.38
	1/2	2-1/4	15	13	30	6' 6"	9 X 18	6.0 X 16	5.00 X 9.50
	9/16	2-1/2	19	16	38	7' 0"	10 X 20	6.50 X 18	5.00 X 9.50
	5/8	2-13/16	23	20	46	8' 0"	11 X 22	7.0 X 20	6.75 X 11.75
	3/4	3-3/8	33	29	66	9' 0"	12 X 24	8.0 X 24	8.00 X 14.50

Basket ratings based on a minimum D/d of 10 (using sling body dia.). See 1st pg. of WIRE ROPE sec.

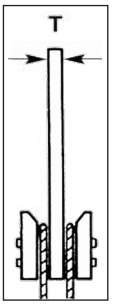
* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the Effect of Angle chart in the General Information section of this catalog.

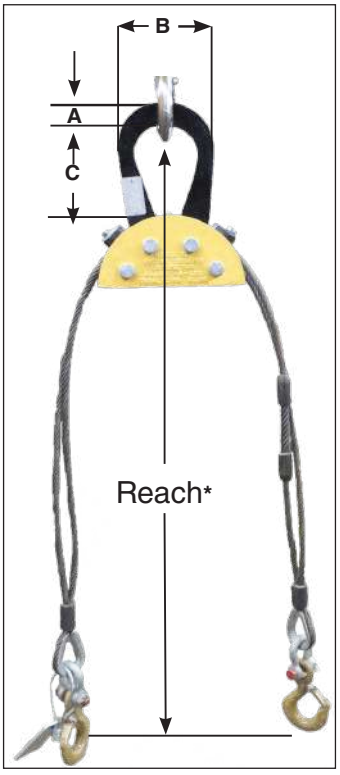
ADJUST-A-LEG®

Adjustable 2-Leg Wire Rope Sling

Features and Benefits

- Easy to adjust legs for a level lift of unbalanced and non-symmetrical loads.
- Can be locked in place for repetitive lifts.
- Use in pairs for 4-Point lifts.
- Can be used as top rigging for spreader beams.
- Great as rigging to move machinery.





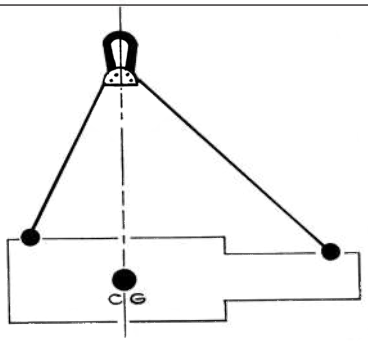
Rated Capacity Legs @ 45° (tons)	Part Number	Standard Reach* (ft.)	Rope Diameter (in.)	Top Assembly A • B • C • T (in.)	Hook Size (tons)	Weight (lbs.)
1	AAL1	3	5/16	1.13 • 3.13 • 5.00 • 0.63	1	7.5
2	AAL2	4	5/16	1.13 • 3.13 • 5.00 • 0.63	1-1/2	20
4	AAL4	6	7/16	1.13 • 3.13 • 5.00 • 0.63	3	32
6	AAL6	9	9/16	1.75 • 5.25 • 8.38 • 0.81	5	76
8	AAL8	9	5/8	1.75 • 5.25 • 8.38 • 0.88	7	90
12	AAL12	9	3/4	2.38 • 5.63 • 8.75 • 1.06	11	152
15	AAL15	9	7/8	2.38 • 5.63 • 8.75 • 1.06	11	175

*** Reach should be a length of 70% or greater of the distance between pick up points.**

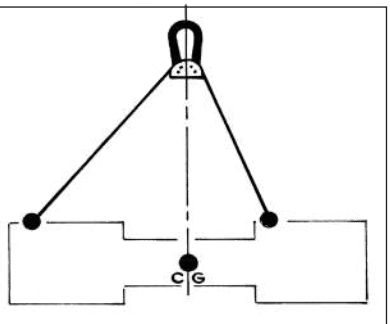
Operation:

For a level lift, adjust the leg lengths so that the master plate is above the approximate center of gravity. Test position by lifting only until one end of the load is raised. Lower and reposition master plate and legs for another test. Repeat until load raises without tilting. ***Adjust-A-Leg*** **must be loaded to at least 10% of rated capacity before legs will fully lock into place.**

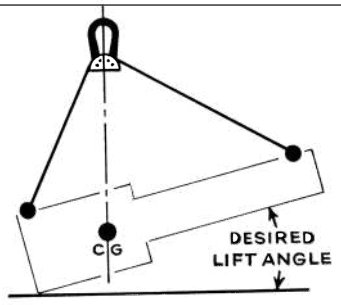
Typical Applications



Level lifting of non-symmetrical loads where lift points are not equidistant from center of gravity.



Level lifting of symmetrical loads where lift points are not equi-distant from center of load.

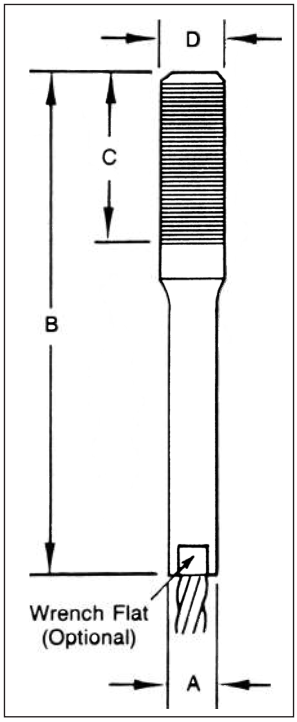


Lifting of any load at an angle.

Adjust-A-Leg® is a registered trademark of Caldwell Group Lifting Solutions.

SWAGED THREADED STUDS

- Choice of studs made of specially selected carbon steel or stainless steel.
- Custom OEM engineering available.

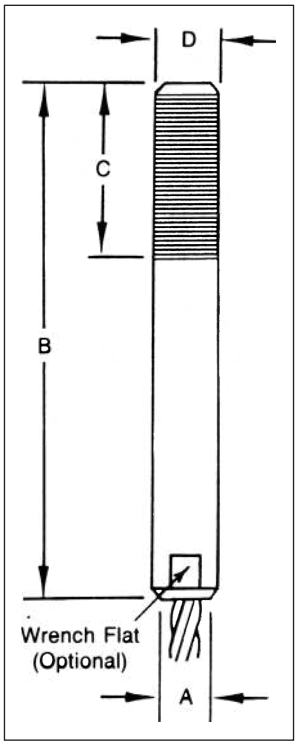


Straight Threaded Studs

Part Number	Rope Dia (in.)	Nominal Breaking Strength* (tons)	Dimensions (in.)				N.C.** Thread	N.F. Thread
			After Swage A	Approx. B	C	D		
STS-8	1/4	3.4	0.44	4.06	1.50	0.50	13	20
STS-10	5/16	5.3	0.56	5.25	1.88	0.63	11	18
STS-12	3/8	7.6	0.63	6.25	2.25	0.75	10	16
STS-14	7/16	10.2	0.75	7.31	2.63	0.88	9	14
STS-16	1/2	13.3	0.88	8.25	3.00	1.00	8	14
STS-18	9/16	16.8	1.00	9.25	3.38	1.13	7	12
STS-20	5/8	20.6	1.13	10.13	3.75	1.25	7	12
STS-24	3/4	29.4	1.25	12.81	4.50	1.50	6	12
STS-28	7/8	39.5	1.50	14.56	5.25	1.75	5	12
STS-32	1	51.7	1.75	16.25	6.00	2.00	4.5	12
STS-36	1-1/8	65.0	2.00	18.25	6.75	2.25	4.5	12
STS-40	1-1/4	79.9	2.25	20.25	7.50	2.50	4	12

* Nominal Breaking Strength based on 6X19 or 6X37 IWRC EIPS wire rope, with assembly used as a straight tension member.

** N.C. - Coarse threads are standard



Turned Threaded Studs

Part Number	Rope Dia (in.)	Nominal Breaking Strength* (tons)	Dimensions (in.)				N.C.** Thread	N.F. Thread
			After Swage A	Approx. B	C	D		
TTS-10	5/16	5.3	0.63	5.72	1.75	0.63	11	18
TTS-12	3/8	7.6	0.75	6.75	2.00	0.75	10	16
TTS-14	7/16	10.2	0.88	7.66	2.25	0.88	9	14
TTS-16	1/2	13.3	1.00	8.56	2.50	1.00	8	14
TTS-18	9/16	16.8	1.13	9.63	2.75	1.13	7	12
TTS-20	5/8	20.6	1.25	10.66	3.13	1.25	7	12
TTS-24	3/4	29.4	1.50	12.69	3.75	1.50	6	12
TTS-28	7/8	39.5	1.75	14.63	4.38	1.75	5	12
TTS-32	1	51.7	2.00	16.66	5.00	2.00	4.5	12
TTS-36	1-1/8	65.0	2.25	18.63	5.63	2.25	4.5	12
TTS-40	1-1/4	79.9	2.50	20.66	6.25	2.50	4	12
TTS-44	1-3/8	96.0	2.75	22.53	6.88	2.75	4	12
TTS-48	1-1/2	114	3.00	24.50	7.50	3.00	4	12

* Nominal Breaking Strength based on 6X19 or 6X37 IWRC EIPS wire rope, with assembly used as a straight tension member.

** N.C. - Coarse threads are standard

SWAGED SOCKET ASSEMBLIES

Features and Benefits

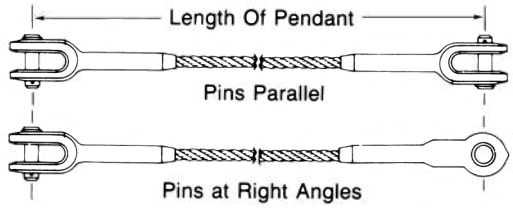
Promotes Safety

- Achieves 100% of nominal rope breaking strength.
- All assemblies are proof-tested before shipment.

Saves Money

- Custom engineered assemblies are available for specific rigging needs.

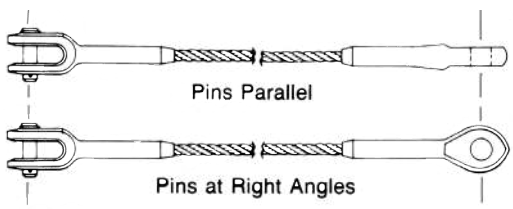
Open Swaged Sockets



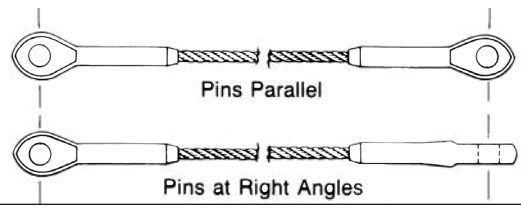
Rope Diameter (in.)	Minimum Pendant Length	Vertical Capacity* (tons)
1/4	11-0"	0.68
5/16	1'-3"	1.1
3/8	1'-3"	1.5
7/16	1'-8"	2.0
1/2	1'-8"	2.7
9/16	2'-0"	3.4
5/8	2'-0"	4.1
3/4	2'-5"	5.9
7/8	2'-10"	8.0
1	3'-2"	10
1-1/8	3'-7"	13
1-1/4	4'-0"	16

* Values given apply to 6X19 or 6X37 IWRC EIPS rope when pendants are used for slings. If used as boom suspension system or other applications, contact *Lift-All* for ratings.

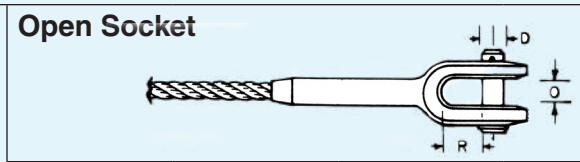
Open & Closed Swaged Sockets



Closed Swaged Sockets



Swage Socket Dimensions – Forged Steel



Rope Dia. (.in.)	Open Socket R (in.)	Open Socket O (in.)	Open Socket D (in.)	Open Socket Weight (lbs.)	Closed Socket W (in.)	Closed Socket K (in.)	Closed Socket Weight (lbs.)
1/4	1.16	0.69	0.69	0.52	0.75	0.50	0.38
5/16	1.34	0.82	0.82	1.12	0.88	0.69	0.77
3/8	1.34	0.82	0.82	1.25	0.88	0.69	0.72
7/16	1.50	1.00	1.00	2.08	1.06	0.88	1.42
1/2	1.50	1.00	1.00	2.08	1.06	0.88	1.35
9/16	1.63	1.25	1.19	4.48	1.25	1.13	2.92
5/8	1.63	1.25	1.19	4.75	1.25	1.13	2.85
3/4	2.00	1.50	1.38	7.97	1.44	1.31	4.90
7/8	2.38	1.75	1.63	11.30	1.69	1.50	6.63
1	2.75	2.00	2.00	17.80	2.06	1.75	10.30
1-1/8	3.13	2.25	2.25	27.50	2.31	2.00	14.50
1-1/4	3.50	2.50	2.50	35.75	2.56	2.25	20.75

HOIST LINES AND STEEL BUTTONS

Hoist Line Cables

Lift-All hoist lines are made using 6X19 IWRC wire core ropes for better resistance to abrasion and crushing. Available with carbon hooks for large throat openings, or alloy hooks for longer life.

Features and Benefits

Promotes Safety

- *Permaloc*™ Flemish Eye splice for high strength efficiency.
- Meets OSHA 1910.184 and ASME B30.9.

Saves Money

- Heavy-duty thimble in eye extends useful life.
- Economical custom assemblies.

Saves Time

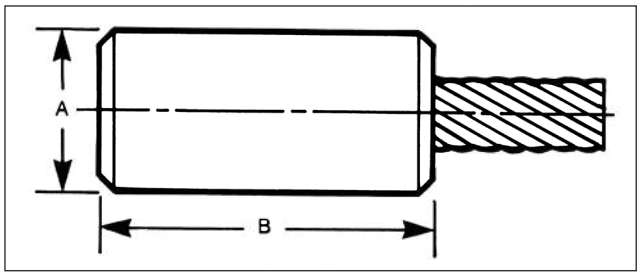
- No assembly time - ready to install.
- Stainless steel latch keeps hook in proper place.

Running lengths of cable with thimbled eye ends available

6X19 Class - Bright (Uncoated)	
Diameter (in.)	Break Strength IWRC
3/8	14,000-lbs.
7/16	19,000-lbs.
1/2	25,000-lbs.
9/16	32,000-lbs.
5/8	39,000-lbs.

Swaged Steel Buttons

Swaged steel buttons are designed for use as end stops on drum winding equipment such as hoists and winches.

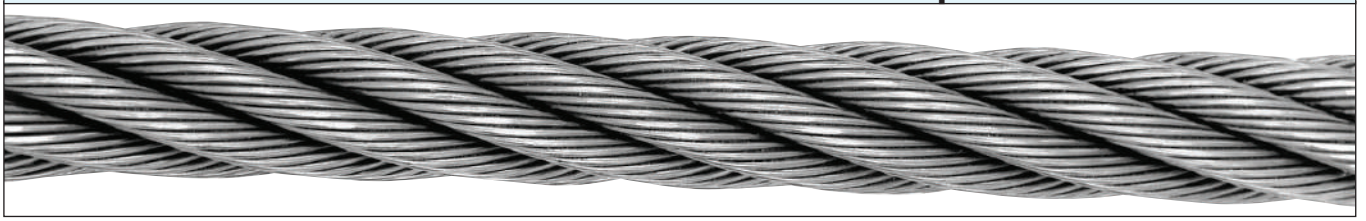


After Swage Dimensions		
Rope Diameter (in.)	A (approx.)	B (approx.)
1/4	0.63	1.13
5/16	0.75	1.50
3/8	0.88	1.75
7/16	1.00	2.00
1/2	1.13	2.38
9/16	1.25	2.63
5/8	1.38	2.88
3/4	1.50	3.50
7/8	1.75	4.13
1	2.00	4.75
1-1/8	2.25	5.25
1-1/4	2.50	5.88
1-3/8	2.75	6.50
1-1/2	3.00	7.13

Non-standard buttons are available.

WIRE ROPE

6X19 and 6X37 Class Wire Rope



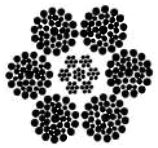
These high quality wire ropes are available in cut lengths or by the reels.

Wire Core

Extra Improved Plow Steel (EIPS)
Higher Capacities

6X19 Class

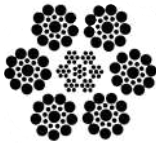
Six Strand Ropes Having
9 to 26 Wires Per Strand
Better Abrasion Resistance



6X19

6X37 Class

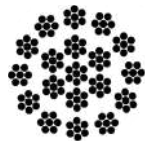
Six Strand Ropes Having
27 to 49 Wires Per Strand
More Flexible



6X37

Rope Diameter (in.)	Approx. Weight per Foot (lbs.)	Nominal Breaking Strength (tons)
1/4	0.12	3.40
5/16	0.18	5.27
3/8	0.26	7.55
7/16	0.35	10.2
1/2	0.46	13.3
9/16	0.59	16.8
5/8	0.72	20.6
3/4	1.04	29.4
7/8	1.42	39.8
1	1.85	51.7
1-1/8	2.34	65.0
1-1/4	2.89	79.9
1-3/8	3.50	96.0
1-1/2	4.16	114
1-5/8	4.88	132
1-3/4	5.67	153
1-7/8	6.50	174
2	7.39	198

Rotation Resistant Wire Rope

19X7	Rope Dia. (in.)	Approx. Weight per Foot (lbs.)	Nominal Breaking Strength (tons)
	**3/8**	0.25	6.15
	7/16	0.35	8.33
	1/2	0.45	10.8
	9/16	0.58	13.6
	5/8	0.71	16.8
	3/4	1.02	24.0
	7/8	1.39	32.5
	1	1.82	42.2
	1-1/8	2.30	53.1

The Nominal Breaking Strength of wire rope should be considered the straight line pull, which will ACTUALLY BREAK a new, UNUSED, rope (with both rope ends fixed to prevent rotation). The Nominal Breaking Strength of the rope should NEVER BE USED AS ITS WORKING LOAD.

To determine the working load of a wire rope, the MINIMUM or NOMINAL Breaking Strength MUST BE REDUCED by a DESIGN FACTOR. The design factor will vary depending upon the type of machine and installation, and the work permitted. YOU must determine the applicable Design Factor for your use.

For example, a Design Factor of "5" means that the Minimum or Nominal Breaking Strength of the wire rope must be DIVIDED BY FIVE to determine the maximum load that can be applied to the rope system.

Design Factors have been established by OSHA, by ANSI, by ASME, and similar government and industrial organizations.

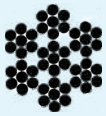
No wire rope should ever be installed or used without full knowledge and consideration of the Design Factor for the application.

The above is based on the 'Wire Rope Safety Bulletin' published by the "WIRE ROPE TECHNICAL BOARD."

Note: Specialty ropes are available upon request.

CABLE & COMPONENTS

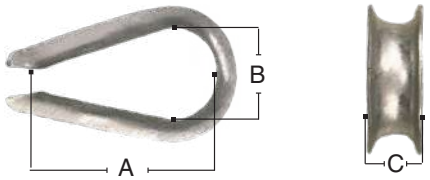
Galvanized & Stainless Steel Cable

	Cable Diameter (in.)	Weight per Reel (lbs.)	Standard Length (ft./Reel)	Nominal Break Strength (lbs.)	
				Galvanized Cable (GAC)	Stainless Steel Cable (SSAC) Type 304
7X7 	1/16	5	500	480	430
	3/32	9	500	920	820
	1/8	15	500	1,700	1,500
	5/32	16	250	2,600	n/a
	3/16	26	250	3,700	n/a
	1/4	28	250	6,100	n/a
7X19 	3/32	9	500	1,000	920
	1/8	15	500	2,000	1,760
	5/32	12	250	2,800	2,400
	3/16	17	250	4,200	3,700
	1/4	25	250	7,000	6,400
	5/16	38	200	9,800	9,000
	3/8	52	200	14,400	12,000

Galvanized Cable Coated W/Clear Vinyl (VGAC)

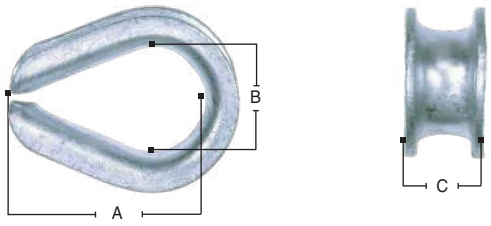
Galvanized Cable Construction	Cable Diameter (in.)	Coated to (in.)	Weight per Reel (lbs.)	Standard Length (ft./Reel)	Nominal Break Strength (lbs.)
7X7	1/16	3/32	7	500	480
	3/32	3/16	7	250	920
	1/8	3/16	10	250	1,700
7X19	1/8	3/16	10	250	2,000
	3/16	1/4	19	200	4,200
	1/4	5/16	28	200	7,000

STANDARD THIMBLES



Rope Dia. (in.)	Dimensions (in.)			Quantity Per Bag	Weight Per Bag (lbs.)
	A	B	C		
1/8	1.31	0.69	0.25	100	4
3/16	1.31	0.69	0.31	100	4
1/4	1.31	0.69	0.38	100	4
5/16	1.50	0.82	0.44	80	3
3/8	1.63	0.94	0.50	80	4

Heavy Duty Thimbles



Rope Diameter (in.)	Dimensions (in.)			Weight Each (lbs.)
	A	B	C	
1/4	1.63	0.88	0.44	0.08
5/16	1.88	1.06	0.53	0.14
3/8	2.13	1.13	0.66	0.22
7/16	2.32	1.25	0.75	0.36
1/2	2.75	1.50	0.94	0.51
9/16	2.75	1.50	1.00	0.35
5/8	3.25	1.75	1.03	0.75
3/4	3.75	2.00	1.25	1.47
7/8	4.25	2.25	1.44	1.85
1	4.50	2.50	1.69	3.00
1-1/8	5.13	2.88	1.81	4.00
1-1/4	6.50	3.50	2.19	8.17
1-3/8 & 1-1/2	6.25	3.50	2.56	11.75
1-5/8	8.00	4.00	2.72	17.00
1-3/4	9.00	4.50	2.84	17.75
1-7/8 & 2	12.0	6.00	3.09	25.00
2-1/4	14.0	7.00	3.63	39.50

CABLE & COMPONENTS

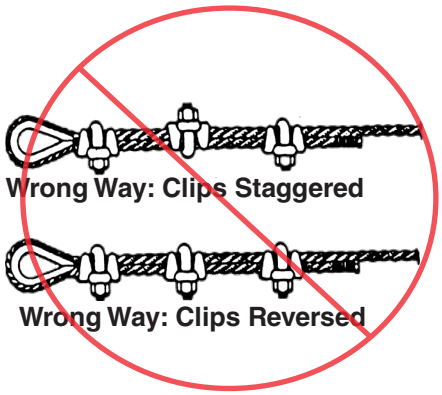
Wire Rope Clips

The following instructions, supplied by the Wire Rope Technical Board, will result in an approximate 80% efficiency rating when the clips are applied, as instructed, on GAC, SSAC, RRL or RLL; 6X19 class or 6X37 class; fiber core or IWRC non-Seale type construction wire rope. If applying to vinyl-coated ropes, strip the vinyl from the connection area first.

How to Apply Clips

1. Turn back the specified amount of rope from the thimble. Apply the first clip, fastening it one clip width from the dead-end of the wire rope (U-bolt over dead-end; live end rests in clip saddle). Tighten nuts evenly to recommended torque.
2. Apply the next clip as close to the loop as possible. Turn nuts firmly but do not tighten.
3. If required, place additional clips equally between the first two. Tighten nuts; take up rope slack; tighten all nuts evenly on all clips to recommended torque.
4. **NOTICE!** Apply the initial load and re-tighten nuts to the recommended torque. Wire rope will stretch, and diameter is reduced when a load is applied. Inspect periodically and re-tighten to recommended torque.

Right Way: For Maximum Rope Strength



Wrong Way: Clips Staggered

Wrong Way: Clips Reversed

⚠ WARNING

Failure to make a termination in accordance with aforementioned instructions, or failure to periodically check and re-tighten to the recommended torque, may result in death or serious injury.

Malleable

Drop Forged

Drop Forged Wire Rope Clips

Rope Dia. (in.)	Minimum Number of Clips	Rope Turn-back (in.)	Torque (ft./lbs.)	Weight Each (lbs.)
1/8	2	3.25	4.5	.06
3/16	2	3.75	7.5	.10
1/4	2	4.75	15	.18
5/16	2	5.25	30	.30
3/8	2	6.50	45	.47
7/16	2	7.00	65	.76
1/2	3	11.5	65	.80
9/16	3	12.0	95	1.04
5/8	3	12.0	95	1.06
3/4	4	18.0	130	1.50
7/8	4	19.0	225	2.12
1	5	26.0	225	2.50
1-1/8	6	34.0	225	2.80
1-1/4	7	44.0	360	4.15
1-3/8	7	44.0	360	4.60
1-1/2	8	54.0	360	5.30

Malleable Wire Rope Clips*

Rope Dia. (in.)	Minimum Number of Clips	Rope Turn-back (in.)	Torque (ft./ lbs.)	Quantity Per Bag	Weight Per Bag (lbs.)
1/8	3	5	3	200	10
3/16	3	6	5	150	12
1/4	3	7	15	100	12
5/16	3	8	15	100	15
3/8	3	10	30	50	11

* Malleable clips are not to be used for overhead lifting. Use in light duty, non-critical applications only.

INSPECTION CRITERIA FOR WIRE ROPE SLINGS

Remove slings from service when:

- Capacity information is missing or illegible.
- End attachments (including hooks) are cracked, deformed, or obviously worn.
- Hook throat opening is increased more than 15%.
- Hook is twisted out of plane by more than 10%.

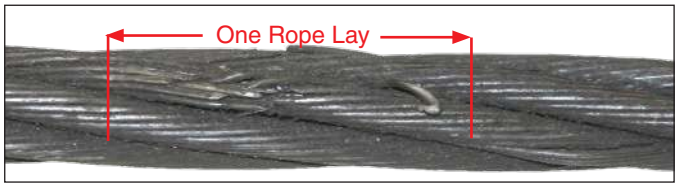
⚠ CAUTION **Do not inspect a sling by passing bare hands over the wire rope.**

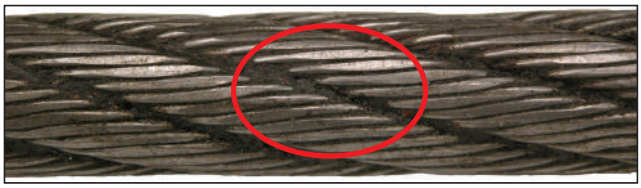
OSHA 1910.184 requires wire rope slings to have "permanently affixed and legible identification markings".

BROKEN WIRES

WHAT TO LOOK FOR: The individual wires that make up the strands in a wire rope can break for various reasons including fatigue and overload. Wire rope slings must be taken out of service when you find 10 or more broken wires in one rope lay, or 5 or more broken wires in one strand of one rope lay.

TO PREVENT: Avoid pulling rope across edges or protrusions.





WEAR

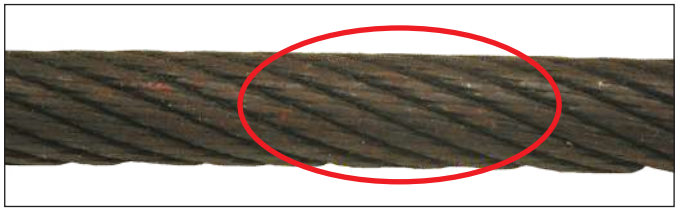
WHAT TO LOOK FOR: Flat areas on the individual wires. When wires have lost one third or more of their original diameter, the sling must be taken out of service.

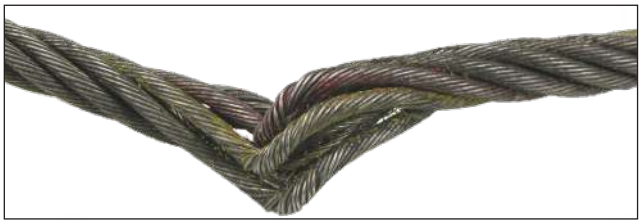
TO PREVENT: Do not drag sling on the ground and do not drag loads over slings. Protect high wear areas.

CORROSION / HEAT DAMAGE

WHAT TO LOOK FOR: Absence of lubrication and discoloration of rope.

TO PREVENT: Hang slings for storage away from moisture. Do not use wire core slings above 400° F or fiber core slings above 180° F.





KINKING / BIRDCAGING

WHAT TO LOOK FOR: Bent strands of wire or strands standing out from their regular position in the body of the sling.

TO PREVENT: Protect rope from sharp edges of load. Do not shock load slings.

CRUSHING

WHAT TO LOOK FOR: A section of rope that is flattened, where the cross section is no longer round.

TO PREVENT: Never allow loads to be set on top of slings.

SLING WEIGHTS

Estimate Sling Weights

Sling Weight = (Length x Per Foot Weight) + Zero Base Weight + Fitting Weights

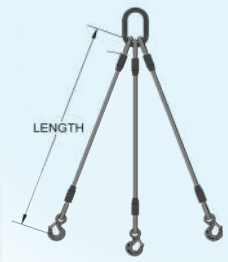
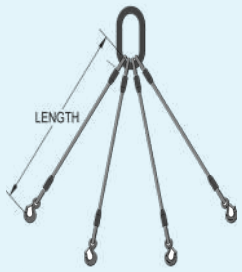
Rope Dia. (in.)	Zero Base Weight* (lbs.)	Per Foot Weight (lbs.)	Thimbled Eye Wt. Ea. (lbs.)	Alloy Eye Hook Wt. Ea. (lbs.)	Crescent Thimble Wt. Ea. (lbs.)	Slip Thru Thimble Wt. Ea. (lbs.)	Sliding Choker Hook Wt. Ea. (lbs.)
1/4	0.31	0.12	0.08	0.63	0.50	1.30	1.30
5/16	0.47	0.18	0.14	0.63	0.50	1.30	1.30
3/8	0.73	0.26	0.22	0.85	0.50	1.30	1.30
7/16	1.30	0.35	0.36	1.40	0.50	1.50	1.90
1/2	1.70	0.46	0.51	1.90	0.75	1.50	1.90
9/16	3.10	0.59	0.51	3.70	0.75	1.50	1.90
5/8	3.50	0.72	0.75	3.70	1.20	3.40	4.00
3/4	5.70	1.00	1.50	7.30	2.00	3.40	4.50
7/8	8.90	1.40	1.90	15.00	3.30	5.60	10.00
1	13.00	1.90	3.00	15.00	3.80	5.60	10.00
1-1/8	18.00	2.30	4.00	22.00	5.00	8.60	26.00
1-1/4	25.00	2.90	8.20	22.00	6.80	8.60	26.00
1-3/8	32.00	3.50	12.00	38.00	8.00	10.00	50.00
1-1/2	41.00	4.20	12.00	38.00	8.00	10.00	50.00
1-3/4	65.00	5.70	18.00	60.00	17.00	18.00	–
2	99.00	7.40	25.00	105.00	22.00	53.00	–
2-14	169.00	9.40	40.00	148.00	39.00	70.00	–
2-1/2	278.00	12.00	–	–	39.00	126.00	–

* Zero Base Weight accounts for the additional rope and sleeves required to form two standard eyes.

SLING WEIGHTS

Estimate Bridle Sling Weights

Sling Weight = (Length x Per Foot Weight) + Zero Base Weight

	2-Leg Bridle		3-Leg Bridle		4-Leg Bridle	
						
Rope Dia. (in.)	*Zero Base Weight (lbs.)	Per Foot Weight (lbs.) (2-Legs)	*Zero Base Weight (lbs.)	Per Foot Weight (lbs.) (3-Legs)	*Zero Base Weight (lbs.)	Per Foot Weight (lbs.) (4-Legs)
1/4	2.8	0.23	2.8	.35	4.7	0.46
5/16	3.2	0.36	5.7	.54	6.9	0.72
3/8	5.8	0.52	7.5	.78	12	1.0
7/16	8.1	0.70	14	1.0	17	1.4
1/2	10	0.92	17	1.4	26	1.8
9/16	20	1.2	27	1.8	39	2.4
5/8	21	1.4	34	2.2	42	2.9
3/4	38	2.1	60	3.1	85	4.2
7/8	58	2.8	89	4.3	121	5.7
1	76	3.7	114	5.6	171	7.4
1-1/8	108	4.7	163	7.0	250	9.4
1-1/4	131	5.8	210	8.7	296	12
1-3/8	197	7.0	320	11	–	–
1-1/2	230	8.3	350	13	–	–
1-3/4	380	11.0	–	–	–	–
2	550	15.0	–	–	–	–

*** Zero Base Weight includes Oblong Link, Thimbled Eyes and Sling Hooks**

ACKNOWLEDGMENT

Lift-All wire rope slings and rated capacities comply with all OSHA, ASME B30.9, and Wire Rope Technical Board publications. Portions of this section of the catalog were taken from the Wire Rope Sling User's Manual with the permission of the Wire Rope Technical Board and the American Iron and Steel Institute.

CHAIN SLING BASICS

***Lift-All* chain slings meet or exceed all OSHA, ASME B30.9 and NACM standards and regulations**

Lift-All chain slings, available in grade 100 for 7/32" through 3/4", and grade 80 for 7/8" up to 1-1/4" are recommended for rugged industrial applications in harsh environments where flexibility, abrasion resistance, and long life are required. OSHA required annual inspections can be performed by *Lift-All* trained personnel.

Features and Benefits

Promotes Safety

- Permanent steel capacity tag is serialized for identification.
- Welded slings offer the security of tamper-proof assemblies.

Saves Money

- Alloy Steel construction assures long life.
- Can be repaired, proof-tested, and re-certified by *Lift-All*.

Saves Time

- Easy to inspect for damage.
- Stores easily.

Use of Chain Under Heat Conditions

When the chain itself is heated to temperatures shown below, the Working Load Limit (Rated Capacity) should be reduced as indicated.

Temperature of Chain (°F)	Reduction of Working Load Limit While at Temperature		Permanent Reduction of Working Load Limit After Exposure to Temperature	
	Grade 80	Grade 100	Grade 80	Grade 100
Below -40	Do Not Use	Do Not Use	None	None
Below -20	None	Do Not Use	None	None
400	10%	15%	None	None
500	15%	25%	None	5%
600	20%	30%	5%	15%
700	30%	40%	10%	20%
800	40%	50%	15%	25%
900	50%	60%	20%	30%
1000	60%	70%	25%	35%
Over 1000	**REMOVE FROM SERVICE**			

Consult *Lift-All* about galvanized chain

Consult *Lift-All* about chain to be used in pickling operations

HOW TO ORDER CHAIN SLINGS

932 D O S W 10 X 12

Define Chain Diameter
9/32" shown in example

Sling Reach (ft.)
Refer to drawings on following pages on how to measure.

'X'

Number of Chain Legs or Other Style
Single – ***S***
Double – ***D***
Triple – ***T***
Quad – ***Q***
Choker – ***C***
Endless – ***E***
(w/o oblong)

Master Link or Specials
Oblong – **O**
Basket – **B**
Adjustable – **A**
Endless:
with oblong – **E**
w/o oblong – **N**

Bottom Attachments
Sling Hook – **S**
Grab Hook – **G**
Foundry Hook – **F**
Latchlok Eye Hook – **L**
Adjustable Slings:
Loop Style A – **A**
Loop Style B – **B**
Style A – **SA**
Style B – **SB**
Endless – Leave Blank

Chain Grade
Grade 80 – **8**
Grade 100 – **10**

Welded or Mechanical
Welded couplers – **W**
Mechanical couplers – **M**

CHAIN SLING BASICS

Grade 100

- Available in sizes 7/32" through 3/4".
- Higher capacity per chain size can be used as an increased safety factor.
- Higher capacity may allow use of smaller diameter chain for your lifts, reducing sling weight and cost.
- Extreme abrasion resistance - more durable.
- Powder-coated attachments for corrosion resistance.

Grade 80

- Available in sizes 7/8" through 1-1/4".
- Greater temperature tolerance.

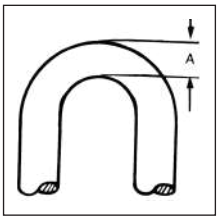
All Chain Slings

- Meet or exceed all OSHA, ASTM and NACM standards.
- Welded or mechanically assembled.

Chain Wear Allowance

Determine wear by measuring cross section at link ends. If worn to less than the minimum thickness allowable, chain should be removed from service.

Chain Size (in.)	Chain Size	Minimum Allowable Thickness - A (in.)
7/32	.219	.189
9/32	.281	.239
3/8	.375	.342
1/2	.500	.443
5/8	.625	.546
3/4	.750	.687
7/8	.875	.750
1	1.00	.887
1-1/4	1.25	1.091



Minimum thickness based on OSHA recommendations.

[1]Rated Capacity For Chain Slings

Size of Chain			90°	60°	45°	30°	60°	45°	30°	Nominal Dimensions (in.)		Approx. No. of Links per ft.	Approx. Weight per 100 ft. (lbs.)
Grade	(in.)	(mm)	Single Chain @ 90° (lbs.)	Double Chain Slings* (lbs.)			Triple & Quad Chain Slings* (lbs.)**			Inside Length	Inside Width		
100	7/32	5.5	2,700	4,700	3,800	2,700	7,000	5,700	4,000	0.676	0.312	17.8	44
100	9/32	7.0	4,300	7,400	6,100	4,300	11,200	9,100	6,400	0.883	0.395	13.6	73
100	3/8	10.0	8,800	15,200	12,400	8,800	22,900	18,700	13,200	1.247	0.574	9.6	144
100	1/2	13.0	15,000	26,000	21,200	15,000	39,000	31,800	22,500	1.559	0.734	7.7	246
100	5/8	16.0	22,600	39,100	32,000	22,600	58,700	47,900	33,900	1.916	0.855	6.3	370
100	3/4	20.0	35,300	61,100	49,900	35,300	91,700	74,900	53,000	2.397	1.070	5.0	580
80	7/8	22.0	34,200	59,200	48,400	34,200	88,900	72,500	51,300	2.250	1.137	5.3	776
80	1	26.0	47,700	82,600	67,400	47,700	123,900	101,200	71,500	2.664	1.348	4.5	995
80	1-1/4	32.0	72,300	125,200	102,200	72,300	187,800	153,400	108,400	3.250	1.656	3.7	1,571

[1]**Rated Capacity** also referred to as "Working Load Limit".
When using chain slings in choke hitch, reduce the sling's rated capacity by 20%.

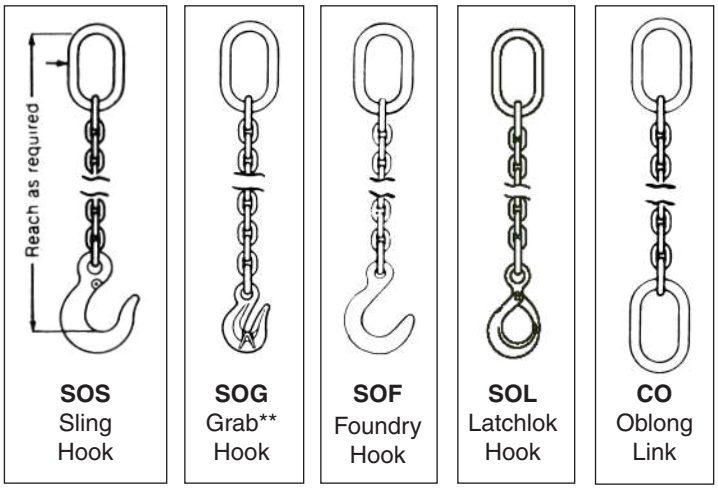
** A ***Quad Chain Sling*** is usually not sustaining the load evenly on each of its' four legs, especially when used on a load of rigid structure. The maximum working load limits are therefore set at the same values as the ***Triple Chain Slings*** of equal quality and size, and used with branches at the same angle of inclinations.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

CHAIN SLINGS

SINGLE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* Vertical (lbs.)	Approx. Weight 5-foot Reach Type SOS (lbs.)
100	7/32	2,700	4
100	9/32	4,300	5
100	3/8	8,800	10
100	1/2	15,000	18
100	5/8	22,600	27
100	3/4	35,300	44
80	7/8	34,200	58
80	1	47,700	79
80	1-1/4	72,300	121



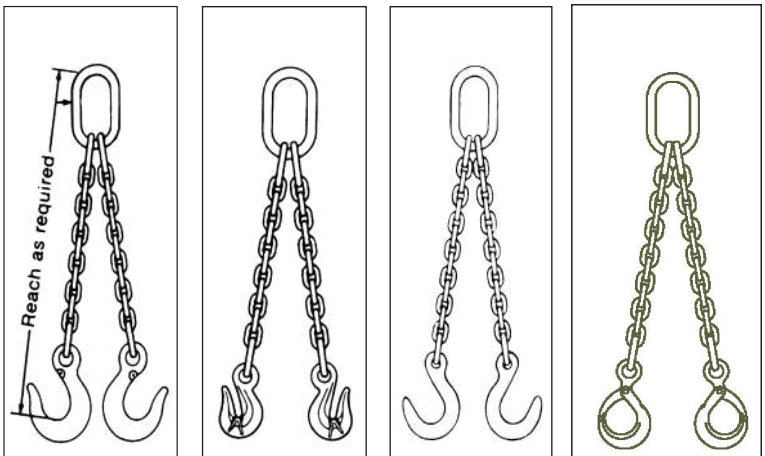
SOS Sling Hook | **SOG** Grab** Hook | **SOF** Foundry Hook | **SOL** Latchlok Hook | **CO** Oblong Link

[1]**Rated Capacity** also referred to as "Working Load Limit".
When using chain slings in choke hitch, reduce the sling's rated capacity by 20%.

**Cradle grab hooks are standard, non-cradle hooks available on request.

DOUBLE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	Approx. Weight 5-ft. Reach Type DOS (lbs.)
100	7/32	4,700	8
100	9/32	7,400	10
100	3/8	15,200	17
100	1/2	26,000	32
100	5/8	39,100	51
100	3/4	61,100	74
80	7/8	59,200	99
80	1	82,600	134
80	1-1/4	125,200	211



DOS Sling Hook | **DOG** Grab** Hook | **DOF** Foundry Hook | **DOL** Latchlok Hook

[1]**Rated Capacity** also referred to as "Working Load Limit".
When using chain slings in choke hitch, reduce the sling's rated capacity by 20%.

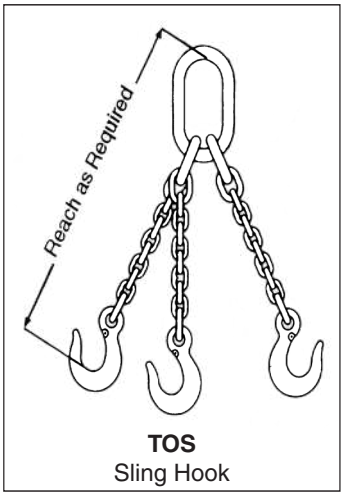
**Cradle grab hooks are standard, non-cradle hooks available on request.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

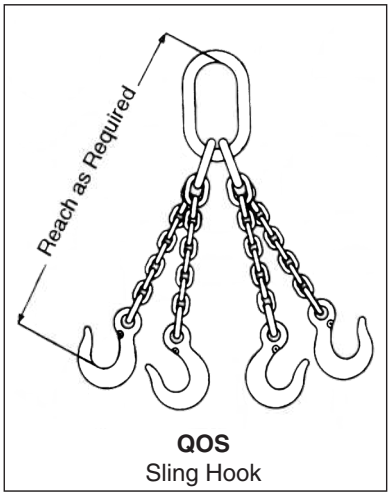
CHAIN SLINGS

TRIPLE and QUAD CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	Approx. Weight 5-ft. Reach Type TOS (lbs.)	Approx. Weight 5-ft. Reach Type QOS (lbs.)
100	7/32	7,000	12	16
100	9/32	11,200	16	19
100	3/8	22,900	28	36
100	1/2	39,000	53	63
100	5/8	58,700	81	100
100	3/4	91,700	116	140
80	7/8	88,900	154	187
80	1	123,900	209	250
80	1-1/4	187,800	358	406



TOS
Sling Hook

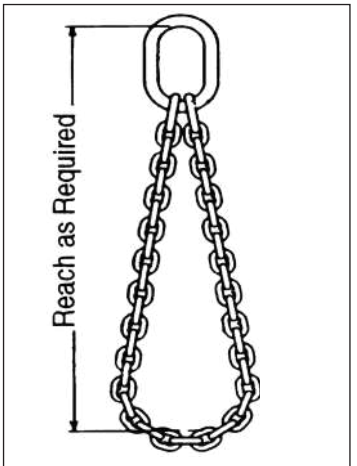


QOS
Sling Hook

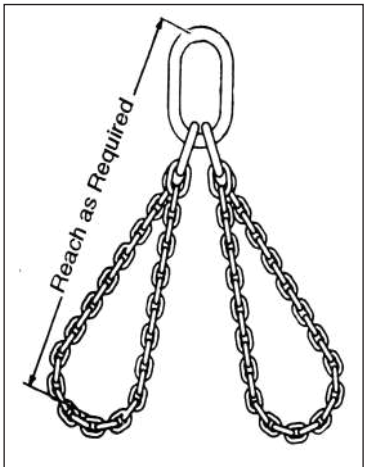
[1] **Rated Capacity** also referred to as "Working Load Limit"
When using chain slings in choke hitch, reduce the sling's rated capacity by 20%.

BASKET TYPE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	
		Single	Double
100	7/32	4,700	7,000
100	9/32	7,400	11,200
100	3/8	15,200	22,900
100	1/2	26,000	39,000
100	5/8	39,100	58,700
100	3/4	61,100	91,700
80	7/8	59,200	88,900
80	1	82,600	123,900
80	1-1/4	125,200	187,800



SB
Single Basket Type



DB
Double Basket Type

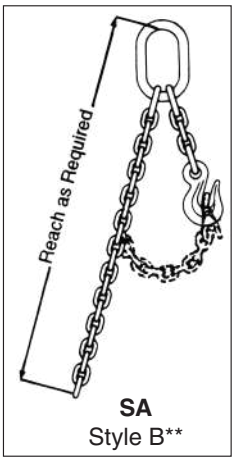
[1]**Rated Capacity** also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

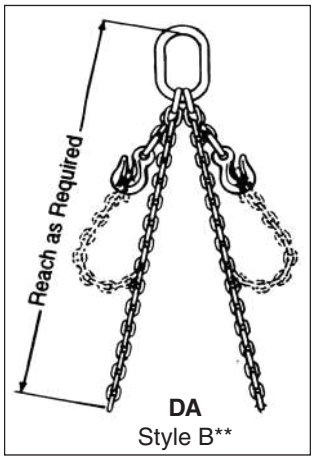
CHAIN SLINGS

ADJUSTABLE LOOP CHAIN SLINGS***

Grade	Chain Size (in.)	[1]Rated Capacity*@ 60° (lbs.)	
		Single	Double
100	7/32	4,700	7,000
100	9/32	7,400	11,200
100	3/8	15,200	22,900
100	1/2	26,000	39,400
100	5/8	39,100	58,700
100	3/4	61,100	91,700
80	7/8	59,200	88,900
80	1	82,600	123,900
80	1-1/4	125,200	187,800



SA
Style B**



DA
Style B**

Style A

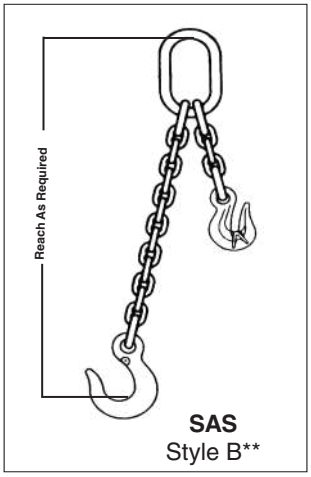
Hook is attached directly to the master link with a coupling link.

*** Cradle grab hooks standard; non-cradle hooks available on request.

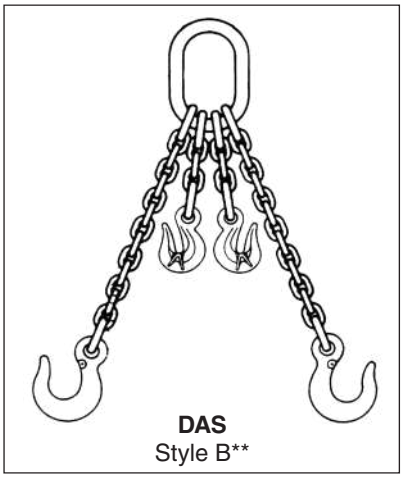
** Style B slings are furnished with approximately one foot of chain.

ADJUSTABLE CHAIN SLINGS***

Grade	Chain Size (in.)	[1]Rated Capacity* (lbs.)	
		Single @90°	Double @ 60°
100	7/32	2,700	4,700
100	9/32	4,300	7,400
100	3/8	8,800	15,200
100	1/2	15,000	26,000
100	5/8	22,600	39,100
100	3/4	35,300	61,100
80	7/8	34,200	59,200
80	1	47,700	82,600
80	1-1/4	72,300	125,200



SAS
Style B**



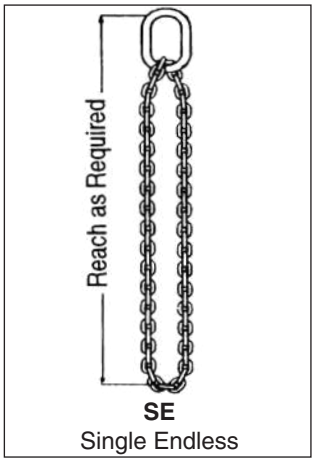
DAS
Style B**

*** Cradle grab hooks standard; non-cradle hooks available on request.

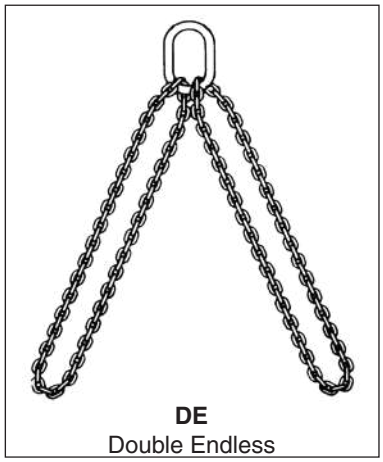
** Style B slings are furnished with approximately one foot of chain.

ENDLESS BASKET CHAIN SLINGS[2]

Grade	Chain Size (in.)	[1]Rated Capacity* (lbs.)	
		Single @90°	Double @ 60°
100	7/32	2,700	4,700
100	9/32	4,300	7,400
100	3/8	8,800	15,200
100	1/2	15,000	26,000
100	5/8	22,600	39,100
100	3/4	35,300	61,100
80	7/8	34,200	59,200
80	1	47,700	82,600
80	1-1/4	72,300	125,200



SE
Single Endless



DE
Double Endless

[1] Rated Capacity also referred to as "Working Load Limit"
[2] Available as welded assembly only.

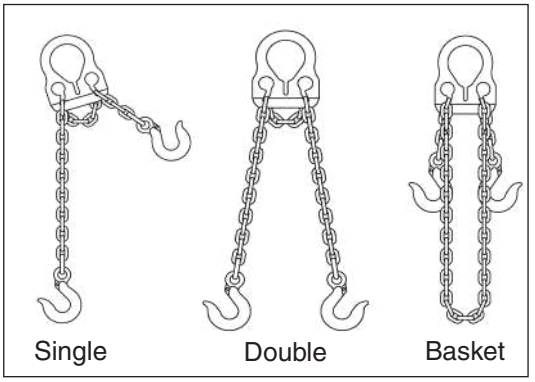
* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

ADJUST-A-LINK GRADE 100 CHAIN SLINGS

The most versatile adjustable chain sling available

Features and Benefits

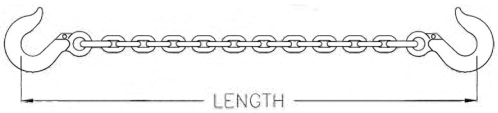
- Alloy steel master control link for strength and reliability.
- Chain cannot be removed from the master control plate.
- Easily adjustable to accommodate a wide range of applications.
- Each assembly serialized for traceability.
- Complies with OSHA – proof-tested and certified.
- Versatile – one sling does many jobs.
- Yellow powder-coating on master plate and hooks prevents rust.
- Compact plate design fits larger hooks for easier rigging.
- Less bulk than typical double adjustable chain slings.
- High visibility yellow fittings.



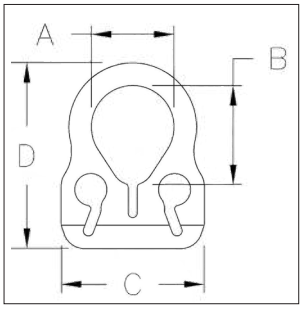
Chain Size (in.)	Rated Capacity* (lbs.)		6-ft. Length		10-ft. Length		14-ft. Length	
	Single @ 90°	Double @ 60°	Part Number	Wgt. (lbs.)	Part Number	Wgt. (lbs.)	Part Number	Wgt. (lbs.)
7/32	2,700	4,700	**30001G10**	4.2	**30002G10**	6.2	–	–
9/32	4,300	7,400	**30003G10**	7.5	**30004G10**	10.5	–	–
3/8	8,800	15,200	–	–	**30005G10**	18.5	**30006G10**	24.5
1/2⁺	12,000	20,800	–	–	**30007**	42	**30008**	52

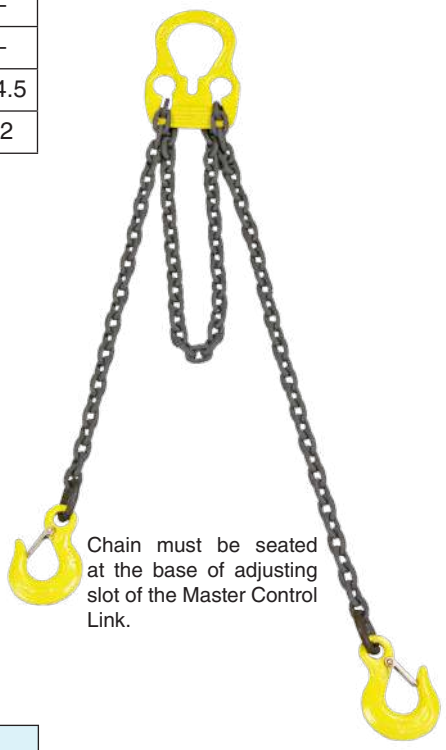
⁺ 1/2" size master link is flame cut, not forged; uses G80 capacity ratings.

* **⚠ WARNING** Adjust-A-Link slings should not be used at angles of less than 45°.

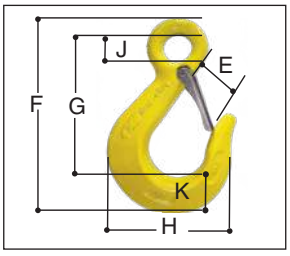


Master Plate Dimensions (in.)				
Chain Size (in.)	Eye Width A	Eye Height B	Overall Width C	Overall Length D
7/32	2.19	2.69	3.94	5.13
9/32	2.88	3.19	5.06	6.50
3/8	3.75	4.13	6.75	8.69
1/2⁺	4.38	4.38	9.75	12.75





Chain must be seated at the base of adjusting slot of the Master Control Link.



Hook Dimensions (in.)						
Chain Size	E	F	G	H	J	K
7/32	0.85	3.49	2.62	2.69	0.55	.872
9/32	1.01	4.04	3.01	3.19	0.64	1.03
3/8	1.44	6.07	4.77	4.33	0.91	1.30
1/2	1.78	7.63	5.69	5.50	1.13	1.94

Note: For AAL w/latches, insert an "L" after the first 5 numbers in the part number. Example: 30005LG10.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

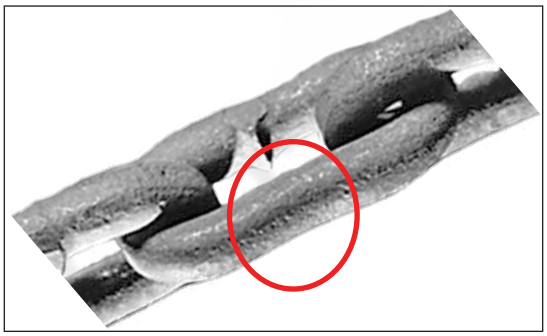
INSPECTION CRITERIA FOR CHAIN

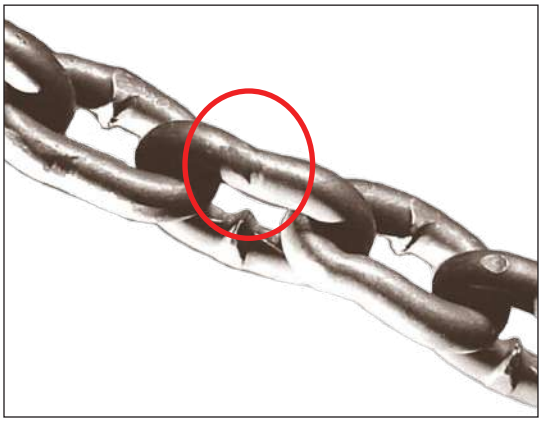
The following photos illustrate some of the common damage that occurs, indicating that the sling must be taken out of service. For inspection frequency requirements, see General Information section in this catalog.

STRETCHED CHAIN LINKS

WHAT TO LOOK FOR: Lengthening of the links and narrowing of the link width. Links that do not hinge freely with adjacent links are stretched and must be taken out of service; however, stretch **can** occur without this indicator. This damage indicates the sling has been extremely overloaded or subjected to shock loading.

TO PREVENT: Avoid overloading and shock loading.





BENT LINKS

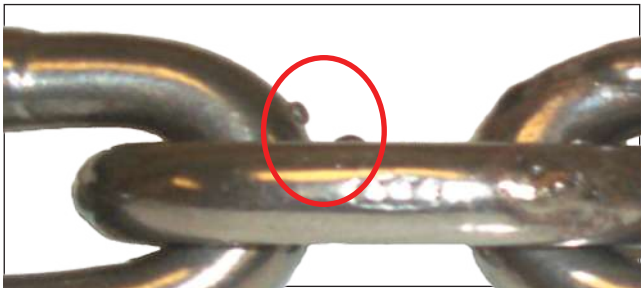
WHAT TO LOOK FOR: Bending usually occurs in only one or two adjacent links. Links will have an irregular shape when compared to other links.

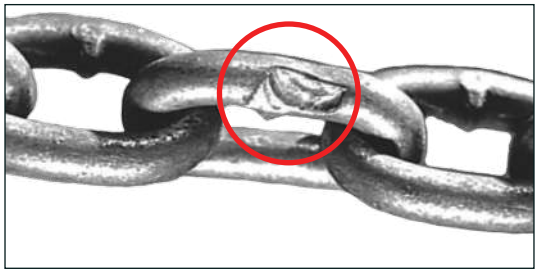
TO PREVENT: Bent links are usually the result of the chain going around the sharp edge of a load during a lift. Load edges must be padded to protect both chain and load.

WELD SPATTER

WHAT TO LOOK FOR: Metallic bumps on any link of chain.

TO PREVENT: The heat from weld spatter can adversely affect the strength of a chain link. Slings must be shielded from welding operations.





GOUGED LINKS

WHAT TO LOOK FOR: Indentations on an otherwise smooth link surface.

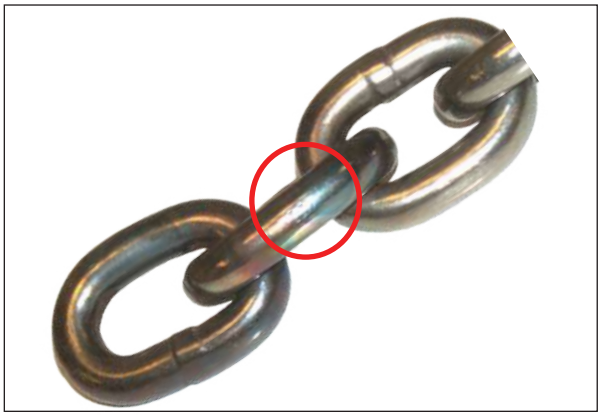
TO PREVENT: Gouging of links is usually caused by heavy loads being dragged over or dropped onto the chain. Protect sling from these situations.

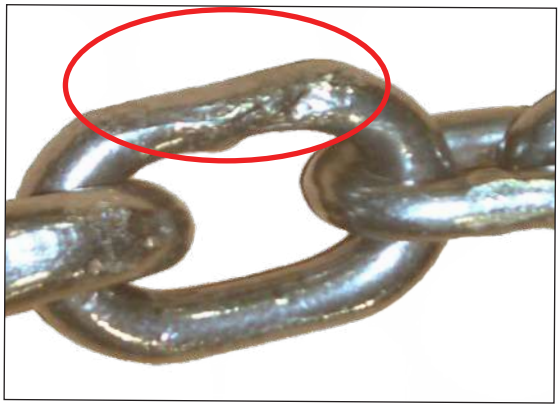
INSPECTION CRITERIA FOR CHAIN

HEAT DAMAGE

WHAT TO LOOK FOR: Discolored areas of chain

TO PREVENT: High temperatures begin to affect alloy chain strength at 400°F. When using chain slings at elevated temperatures, refer to the *Lift-All* temperature chart for working load reductions.





WORN LINKS

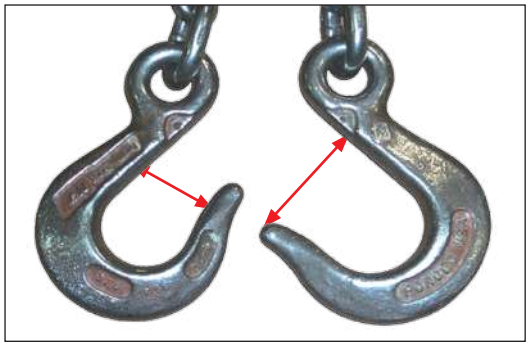
WHAT TO LOOK FOR: Excessive wear and a reduction of the material diameter, especially at the bearing points. Refer to *Lift-All* Wear Allowance Table for minimum allowable link thickness.

TO PREVENT: Wear is a natural result of sling use. Keeping load weights within the ratings of the slings being used will provide the maximum sling wear life.

DAMAGED HARDWARE

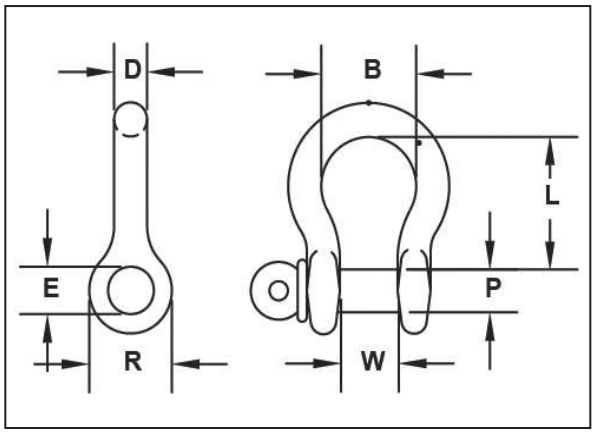
WHAT TO LOOK FOR: Hooks and other fittings usually show wear at the bearing points. Hooks bent more than 10° from the plane or opened more than 15% of the normal throat opening.

TO PREVENT: Never tip load hooks or lift with hardware on a load edge.



WIRE ROPE SLING HARDWARE

Screw Pin Anchor Shackles



Shackle Size D (in.)	[1]Rated Capacity* (tons)		Dimensions (inches)						Weight Each (lbs.)
	CM	Others	P	E	W	R	L	B (min.)	
3/16	1/2	1/3	0.25	0.29	0.38	0.57	0.88	0.58	0.06
1/4	3/4	1/2	0.31	0.36	0.47	0.75	1.13	0.75	0.12
5/16	1	3/4	0.38	0.45	0.53	0.84	1.25	0.81	0.20
3/8	1-1/2	1	0.44	0.52	0.66	1.00	1.40	1.00	0.30
7/16	2	1-1/2	0.50	0.58	0.72	1.15	1.69	1.19	0.50
1/2	3	2	0.63	0.70	0.84	1.34	1.94	1.38	0.75
5/8	4-1/2	3-1/4	0.75	0.83	1.06	1.66	2.41	1.63	1.30
3/4	6-1/2	4-3/4	0.88	0.95	1.28	1.94	2.84	1.89	2.30
7/8	8-1/2	6-1/2	1.00	1.09	1.44	2.14	3.31	2.06	3.50
1	10	8-1/2	1.13	1.22	1.72	2.44	3.75	2.52	5.00
1-1/8	12	9-1/2	1.25	1.36	1.84	2.66	4.02	2.69	7.00
1-1/4	14	12	1.38	1.52	2.03	3.15	4.63	2.88	9.50
1-3/8	17	13-1/2	1.50	1.65	2.25	3.25	5.19	3.25	12.50
1-1/2	20	17	1.63	1.77	2.41	3.50	5.63	3.50	17.20
1-5/8	24	20	1.75	1.88	2.66	3.91	6.13	4.13	23.50
1-3/4	30	25	2.00	2.13	2.94	4.06	6.97	4.75	27.70
2	35	35	2.25	2.38	3.28	4.51	7.44	5.50	39.00

Note: Standard capacities and dimensions shown, but may vary depending on source of supply. Specify required capacity if critical.
[1] Rated Capacity also referred to as "Working Load Limit".

- Carbon shackle, alloy pin.
- Heat treated and tempered.
- Hot dip galvanized.
- Specification: RR-C-271F.
- Type 4A, Grade A, Class 2.
- Design Factor 5:1.

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

SHACKLE PADS

Always Protect Synthetic Slings from Edges

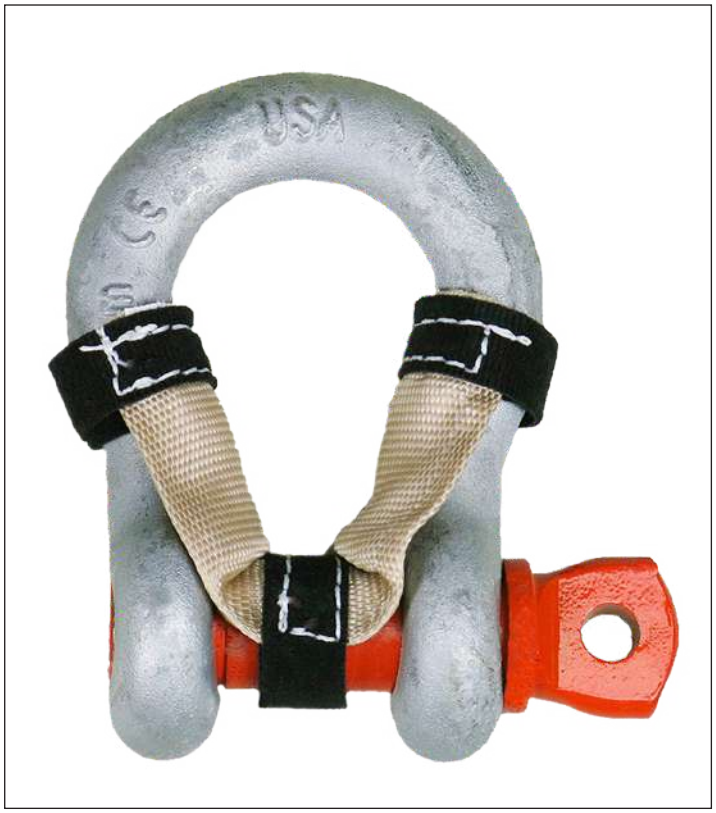
Shackles commonly contain screw threads and inlets to pin openings. These edges need to be guarded from contact with synthetic slings. Always use shackle pads in these areas to prevent possible equipment damage or injury to personnel from a loss of load.

Features and Benefits

Promotes Safety
- Prevents possible equipment damage or injury to personnel from a loss of load.

Saves Money
- Costs less to replace then expensive rigging hooks.

Saves Time
- Quick installation. The pad can be quickly installed using the Velcro® strips.
- Lightweight construction.
- Pad may be used on either end of the shackle.



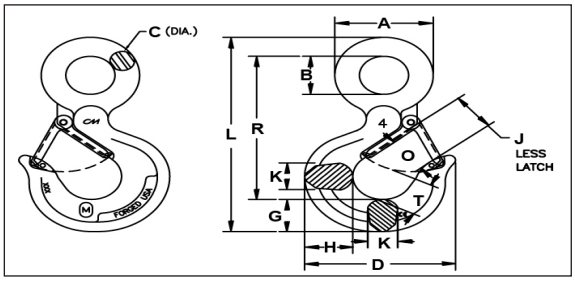
Shackle Size	Part Number
5/8"	**58SP**
3/4"	**34SP**
1"	**1SP**
1-1/4"	**114SP**
1-1/2"	**112SP**
1-3/4"	**134SP**
2"	**2SP**
2-1/2"	**212SP**
3"	**3SP**

Open Shackle Pad

WIRE ROPE SLING HARDWARE

Rigging Eye Hooks

- Drop forged alloy steel.
- Load rating marked on each hook body.
- Pre-drilled latch tab allows addition of heavy-duty latch.
- May also be used on Tuflex Bridle Roundslings and Web Bridle Slings
- Design factor 5:1.



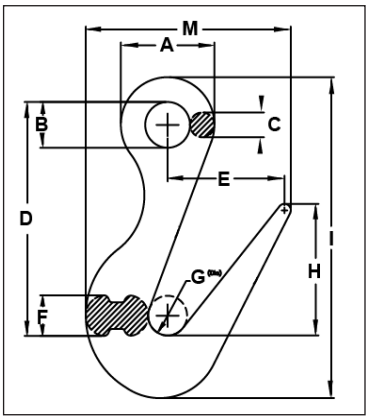
	[1]Rated Capacity* (tons)	Part Number	Dimension (in.)												Weight Each (lbs.)
			A	B	C	D	G	H	J	K	L	O	R	T	
Alloy	1	1AEH	1.50	0.75	0.38	3.12	0.87	1.01	0.93	0.63	4.37	0.93	3.13	0.87	0.66
	1-1/2	112AEH	1.75	0.88	0.44	3.37	0.94	1.11	0.97	0.71	5.04	0.97	3.66	0.97	1.12
	2	2AEH	2.13	1.10	0.50	3.80	1.06	1.21	1.02	0.74	5.65	1.02	4.09	1.03	1.46
	3	3AEH	2.50	1.25	0.64	4.20	1.26	1.43	1.19	0.94	6.55	1.16	4.67	1.16	2.42
	5	5AEH	3.08	1.56	0.77	5.11	1.44	1.63	1.50	1.38	7.97	1.41	5.78	1.53	4.10
	7	7AEH	3.88	1.98	0.94	6.24	1.82	2.01	1.78	1.68	10.07	1.69	7.31	1.94	8.16
	11	11AEH	4.69	2.44	1.13	7.89	2.25	2.63	2.38	1.88	12.41	2.19	9.03	2.52	15.60
	15	15AEH	5.34	2.84	1.25	8.53	2.75	3.10	2.50	2.03	14.05	2.30	10.21	2.54	21.58
	22	22AEH	6.63	3.50	1.56	10.30	3.15	3.62	3.30	2.60	17.53	3.12	12.81	2.73	39.89
Carbon	20	20CSEH	8.50	4.50	2.00	14.06	4.56	–	4.25	3.75	24.69	3.00	18.19	3.88	–
	30	30CSEH	9.30	4.94	2.18	15.44	5.06	–	4.75	4.50	27.36	3.38	20.12	4.75	–
	40	40CSEH	10.75	5.69	2.53	18.50	6.00	–	5.75	5.75	32.25	4.12	23.72	5.69	–

May also be used on Tuflex Bridle Roundslings and Web Bridle Slings.

Sorting Hooks

- Quenched and tempered alloy steel.
- Long tapered point designed for easy grab in rings, pear links, eye bolts or lifting holes.
- Durable powder-coated finish.
- Do not load last 1" of the tip.
- Design factor 5:1.

- **WLL at tip: 2.0-Ton**
- **WLL at bowl: 7.5-Ton**



Part Number+	Dimensions (in.)										Weight (lbs.)
	A	B	C	D	E	F	G	H	I	M	
2SORT	3.00	1.44	0.78	7.34	3.75	1.28	1.25	3.93	10.09	6.58	6.8

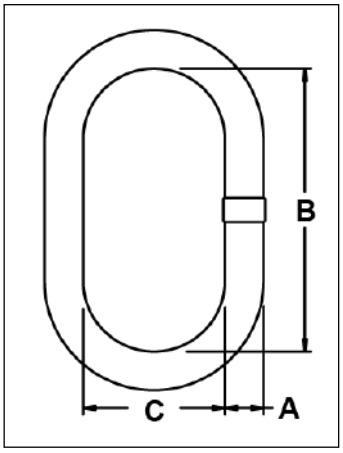
+ For Handle, add 'H' to part number (2SORTH).
[1] Rated Capacity also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

WIRE ROPE SLING HARDWARE

Alloy Oblong Master Link

- Drop forged through 1".
- Larger sizes welded.
- Design factor 5:1.



[1]Rated Capacity*		Part Number	Dimensions* (in.)			Weight Each (lbs.)
tons	lbs.		A Oblong Size (Diameter)	B Inside Length	C Inside Width	
3.0	6,100	**12DOL**	**1/2**	5.00	2.50	0.9
6.6	13,200	**34DOL**	**3/4**	6.00	3.00	2.5
11.2	22,400	**1DOL**	**1**	8.00	4.00	5.8
16.2	32,400	**114DOL**	**1-1/4**	8.75	4.38	9.2
24.5	49,000	**112DOL**	**1-1/2**	10.50	5.25	16
36.7	73,400	**134DOL**	**1-3/4**	12.00	6.00	25
44.4	88,800	**2G8OL**	**2**	14.00	7.00	37
62.6	125,200	**214G8OL**	**2-1/4**	16.00	8.00	54
93.9	187,800	**234G8OL**	**2-3/4**	16.00	9.00	85

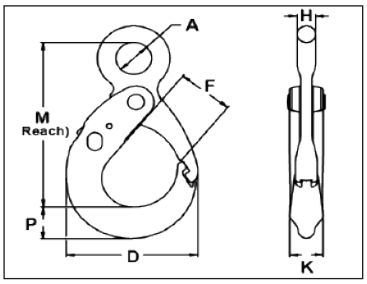
[1]Rated Capacity also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

WIRE ROPE SLING HARDWARE

Latchlok Eye Hooks

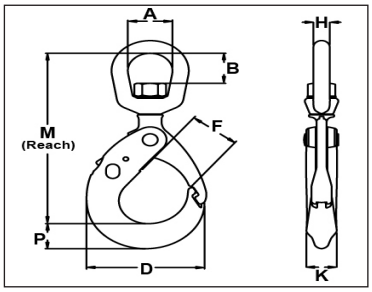
- Heavy-duty latch with lock prevents accidental opening.
- Drop forged alloy steel.
- Durable powder-coated finish.
- Design factor 5:1.



Part Number	[1]Rated Capacity		Dimensions (in.)							Weight Each (lbs.)
	TONS	LBS	A	M	P	D	F	H	K	
932G10ELLH	**1.7**	3,400	1.09	537	0.88	3.77	1.64	0.47	0.91	2.50
38G10ELLH	**3.5**	7,000	1.36	6.65	1.07	4.74	2.27	0.59	1.15	4.74
12G10ELLH	**6.0**	12,000	1.57	8.79	1.58	6.26	2.91	0.80	1.47	10.00
58G10ELLH	**9.0**	18,000	2.00	10.37	1.97	7.37	3.22	1.03	1.85	16.00

Swivel Latchlok Hooks with Bushings

- Hook swivels beneath the eye.
- Heavy-duty latch with lock prevents accidental opening.
- Durable powder-coated finish.
- Positive locking hook.
- Design factor 5:1.



Part Number	Size	[1]Rated Capacity		Dimensions (in.)								Weight Each (lbs.)
		TONS	LBS	H	M	P	D	F	A	B	K	
932G10SLLH	**9/32**	**1.7**	**3,400**	0.62	7.17	0.88	3.77	1.64	1.50	1.33	0.91	3.5
38G10SLLH	**3/8**	**3.5**	**7,000**	0.77	8.73	1.07	4.76	2.26	1.75	1.63	1.15	4.8
12G10SLLH	**1/2**	**6.0**	**12,000**	0.93	11.18	1.58	6.26	2.91	1.00	1.76	1.47	10.6
58G10SLLH	**5/8**	**9.0**	**18,000**	1.00	13.35	1.97	7.37	3.22	2.75	2.38	1.85	17.0

USING LATCHLOK™ HOOKS SAFELY

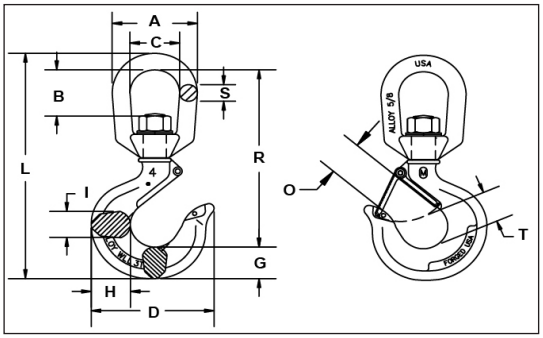
- Δ Do not apply load unless latch and hook are completely closed and locked.
- Δ Make certain that the latch does not support any part of the load.
- Δ When lifting, make certain that the load is firmly seated in the base (bowl) of the hook.
- Δ Inspect hook and latch periodically. If the hook or latch is damaged or if the latch fails to interlock with the tip, the hook should be removed from service.
- Δ Do not exceed the working load limit.
- Δ Do not use if the hook is visibly distorted, damaged, or worn.
- Δ Keep body and other objects clear of the latch when closing to avoid the pinch point.
- Δ Do not side load or tip load hook.
- Δ User should be properly trained and understand safe rigging practices.

[1]Rated Capacity also referred to as "Working Load Limit".

WIRE ROPE SLING HARDWARE

Swivel Rigging Eye Hooks

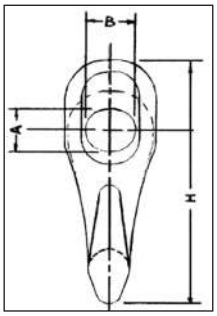
- Pre-drilled for latches.
- Heat-treated, quenched and tempered.
- Design factor 5:1.
- Shown with optional latch.

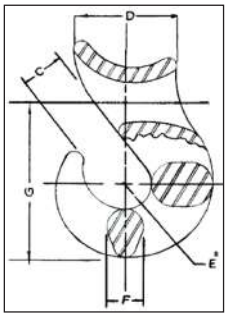


Rated Cap.* (tons)	Part Number	Dimensions (inches)												Weight Each (lbs.)
		A	B	C	D	G	H	I	L	R	S	T	O	
1	1ASWH	2.00	1.11	1.31	3.06	0.87	1.05	0.63	5.83	4.63	0.38	0.87	0.93	1.05
1-1/2	112ASWH	2.50	1.38	1.50	3.33	0.94	1.11	0.71	6.83	5.44	0.50	0.97	0.97	1.56
2	2ASWH	3.00	1.65	1.75	3.67	1.06	1.21	0.88	7.76	6.25	0.63	1.03	1.06	2.50
3	3ASWH	3.00	1.65	1.75	4.20	1.27	1.43	0.94	8.40	6.49	0.63	1.16	1.16	3.20
5	5ASWH	3.50	1.77	2.00	5.11	1.44	1.63	1.31	9.76	7.53	0.75	1.53	1.41	5.36
7	7ASWH	4.75	2.39	2.75	6.24	1.82	2.01	1.68	12.42	9.67	1.00	1.94	1.69	10.56
11	11ASWH	5.50	2.55	3.25	7.69	2.25	2.63	1.88	14.89	12.06	1.13	2.46	2.22	19.00
15	15ASWH	6.00	2.47	3.50	8.37	2.59	2.94	2.19	15.79	11.95	1.25	2.62	2.23	26.75
22	22ASWH	7.75	3.82	4.75	10.19	3.00	3.50	2.69	21.18	16.68	1.50	2.74	3.05	51.80

Sliding Choker Hooks

- Speeds rigging time of bundled loads.
- Reduces sling wear when used with thimbles. When used on multi-part slings, contact *Lift-All* for additional information.
- Saddle is rounded to minimize wear.
- Hook opening is large enough to take a galvanized plow steel thimble the same size as the hook size.





Hook Number (Rope Dia.)	[1]Rated Cap.* IMP (tons)	Dimension (in.)								Weight (lbs.)
		A	B	C	D	E	F	G	H	
3/8 - 1/2	1.9	0.67	0.67	0.83	2.00	0.50	0.75	3.88	5.20	1.5
5/8	2.9	0.88	0.88	1.13	2.75	0.56	0.94	4.44	5.94	4.0
3/4	4.1	1.00	1.00	1.13	3.13	0.69	1.25	4.69	6.44	4.5

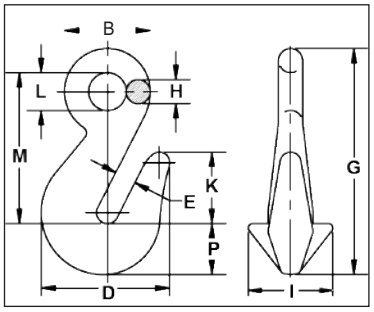
Contact *Lift-All* for domestic hook information, including larger sizes.
[1]Rated Capacity also referred to as "Working Load Limit."

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

CHAIN SLING HARDWARE

Eye Cradle Grab Hook – Code G

- For use with both G80 & G100 chain.
- Unique cradle grab design.
- Quenched and tempered alloy steel.
- 100% proof-tested.
- Fatigue rated.
- Durable powder-coated finish.
- Design factor 4:1.

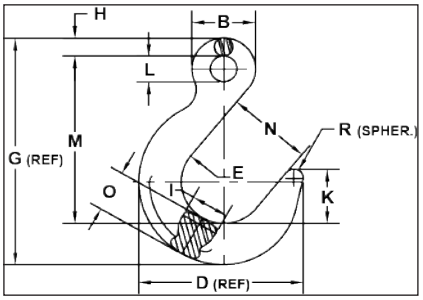


Grade	Chain Size (in.)	[1]Rated Cap.* (lbs.)	Part Number	Dimensions (inches)										Weight Each (lbs.)
				B	D	E	G	H	I	K	L	M	P	
100	7/32	2,700	732DECGH	1.20	1.68	.33	3.22	.33	.92	.99	.55	2.20	.69	0.35
100	9/32	4,300	932DECGH	1.40	1.93	.39	3.72	.39	1.07	1.07	.63	2.58	.76	0.55
100	3/8	8,800	38DECGH	1.78	2.86	.52	.481	.52	1.38	1.38	.75	3.27	1.02	1.39
100	1/2	15,000	12DECGH	2.28	3.69	.63	6.36	.63	1.81	1.81	1.06	4.23	1.53	3.05
100	5/8	22,600	58DECGH	2.75	4.53	.75	7.62	.75	2.13	2.13	1.25	5.06	1.80	4.36
100	3/4	35,300	34DECGH	3.50	5.23	.91	9.54	1.00	2.88	2.88	1.52	6.70	1.85	9.0
80	7/8	34,200	78G8ECGH	3.75	5.69	1.00	9.63	1.00	3.00	3.75	1.75	6.50	2.12	10.4
80	1	47,700	1G8ECGH	4.31	7.00	1.19	12.44	1.22	3.88	4.31	1.88	8.09	3.12	20.9
80	1-1/4	72,300	114G8CGH~	5.38	8.50	1.50	15.56	1.56	2.50	5.50	2.25	10.5	3.50	40

~Note: 1-1/4" is a Non-Cradle type. Also, Non-Cradle Grab Hooks are also available for other sizes upon request.

Foundry Hook – Code F

- For use with both G80 & G100 chain.
- Throat opening to 6 inches.
- Quenched and tempered alloy steel.
- 100% proof-tested.
- Fatigue rated.
- Durable powder-coated finish.
- Design factor 4:1.



Grade	Chain Size (in.)	[1]Rated Cap.* (lbs.)	Part Number	Dimensions (inches)												Weight Each (lbs.)
				B	D	E	G	H	I	K	L	M	N	O	R	
100	9/32	4,300	932DEFH	1.56	4.73	2.50	6.45	.47	1.00	1.56	.63	4.75	2.50	1.23	.25	2.4
100	3/8	8,800	38DEFH	2.00	5.72	3.00	7.88	.63	1.27	1.88	.80	5.77	3.00	1.50	.31	4.5
100	1/2	15,000	12DEFH	2.50	6.74	3.50	9.38	.75	1.50	2.22	1.00	6.88	3.50	1.75	.38	7.1
100	5/8	22,600	58DEFH	3.00	7.79	4.00	10.97	.88	1.81	2.63	1.13	8.06	4.00	2.03	.44	11.6
100	3/4	35,300	34DEFH	3.50	9.07	4.50	12.81	1.00	2.20	3.00	1.50	9.25	4.50	2.56	.50	20
80	7/8	34,200	78G8EFH	4.00	10.09	5.00	14.23	1.13	2.25	3.38	1.70	10.38	5.00	2.78	.56	26
80	1	47,700	1G8EFH	4.50	11.55	5.50	16.17	1.29	2.63	3.75	2.13	11.56	5.50	3.45	.62	36.8
80	1-1/4	72,300	114G8EFH	5.13	12.87	6.00	18.03	1.38	3.17	4.25	2.33	12.88	6.00	3.81	.75	58.4

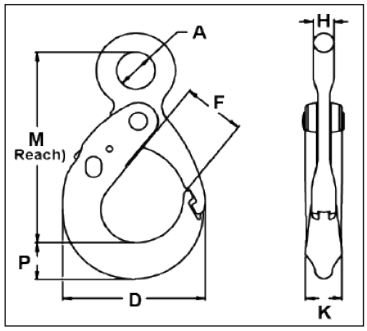
[1]Rated Capacity also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

CHAIN SLING HARDWARE

Latchlok Eye Hooks – Code L

- Large eye design for use with G80 and G100 chain, wire rope and synthetic material.
- 100% proof-tested.
- Positive locking hook.
- Meets ASTM A952 standards.
- Durable powder-coated finish.
- Design factor 4:1.

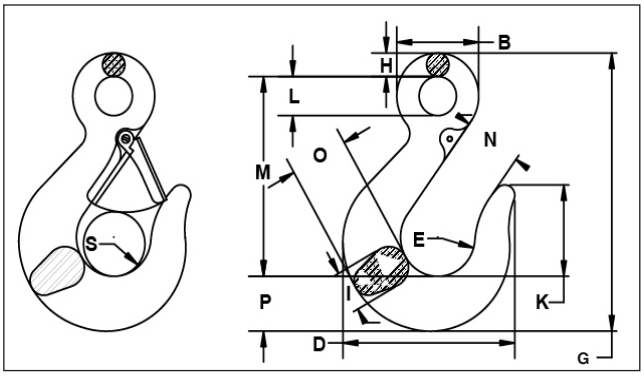


Chain Size (in.)	[1]Rated Capacity* (lbs.)	Part Number	Dimensions (inches)							Weight Each (lbs.)
			A	D	F	H	K	M	P	
9/32	4,300	**932G10ELLH**	1.09	3.77	1.64	0.47	0.91	5.37	0.88	2.50
3/8	8,800	**38G10ELLH**	1.36	4.74	2.27	0.59	1.15	6.65	1.07	4.74
1/2	15,000	**12G10ELLH**	1.57	6.26	2.91	0.80	1.47	8.79	1.58	10.00
5/8	22,600	**58G10ELLH**	2.0	7.37	3.22	1.03	1.85	10.37	1.97	16.00

Note: For welded 7/32" chain sling use 9/32" eye latchlok hook.

Chain Sling Eye Hook – Code S

- For use with both G80 and G100 chain.
- Quenched and tempered alloy steel.
- Fatigue rated.
- 100% proof-tested.
- Durable powder-coated finish
- Design factor 4:1.
- Shown with optional latches.



Grade	Chain Size (in.)	[1]Rated Cap.* (lbs.)	Part Number	Dimensions (inches)													Weight Each (lbs.)
				B	D	E	G	H	I	K	L	M	N	O	P	S	
100	**7/32**	2,700	**732DESH**	1.50	3.04	1.30	5.06	0.38	0.66	1.47	0.75	3.75	0.97	0.99	0.94	0.99	0.80
100	**9/32**	4,300	**932DESH**	1.65	3.48	1.50	5.25	0.45	0.75	1.75	0.72	3.75	1.19	1.21	1.05	1.10	1.10
100	**3/8**	8,800	**38DESH**	2.06	4.33	1.88	6.66	0.58	0.97	2.19	0.91	4.77	1.44	1.46	1.31	1.29	1.90
100	**1/2**	15,000	**12DESH**	2.63	5.50	2.25	8.16	0.77	1.10	2.56	1.09	5.67	1.78	1.91	1.68	1.63	4.50
100	**5/8**	22,600	**58DESH**	3.06	6.23	2.63	9.63	0.89	1.46	2.62	1.31	6.50	2.03	2.20	2.23	1.69	7.30
100	**3/4**	35,300	**34DESH**	3.50	7.82	3.00	11.38	1.00	1.69	3.47	1.50	7.81	2.50	2.82	2.58	2.31	11.40
80	**7/8**	34,200	**78G8ESH**	3.88	8.59	3.38	12.72	1.09	1.94	3.88	1.69	8.75	2.78	3.22	2.84	2.38	18.10
80	**1**	47,700	**1G8ESH**	4.31	9.59	4.00	14.23	1.22	2.14	4.25	1.88	9.88	3.13	3.55	3.09	2.88	22.60
80	**1-1/4**	72,300	**114G8ESH**	5.31	11.56	4.66	17.00	1.50	2.62	4.64	2.31	11.50	3.88	4.25	3.89	3.41	47.00

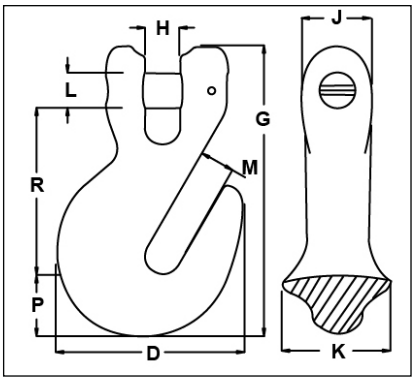
Note: Latches are not included on domestic hooks. If latches are required, you must specify latches when ordering.
[1]Rated Capacity also referred to as "Working Load Limit."

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

CHAIN SLING HARDWARE

Clevis Cradle Grab Hook – Code G

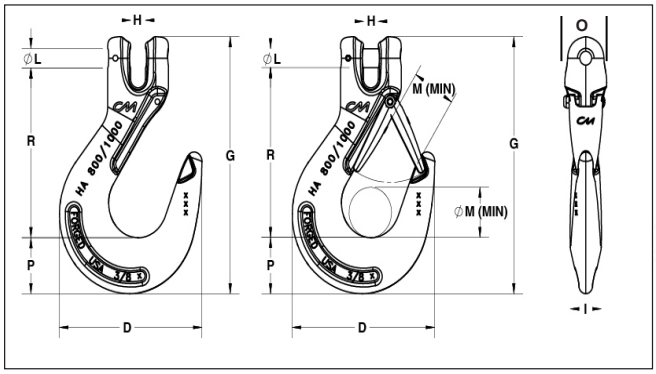
- For use with both G80 and G100 chain.
- Unique cradle grab design.
- 100% proof-tested.
- Quenched and tempered alloy steel.
- Fatigue rated.
- Durable powder-coated finish.
- Replacement pin available.
- Design factor 4:1.



Chain Size (in.)	[1]Rated Capacity* (lbs.)	Part Number	Dimensions (in.)									Weight Each (lbs.)
			D	G	H	J	K	L	M	P	R	
9/32	4,300	**932DCGH**	2.18	3.39	0.38	0.82	0.97	0.36	0.38	0.82	1.86	0.63
3/8	8,800	**38DCGH**	2.72	4.33	0.47	1.18	1.29	0.51	0.74	1.03	2.47	1.30
1/2	15,000	**12DCGH**	3.65	5.27	0.65	1.39	2.01	0.63	0.60	1.19	3.04	2.10
5/8	22,000	**58DCGH**	4.50	6.54	0.77	1.55	2.42	0.75	0.77	1.41	3.76	4.20
3/4	35,300	**34DCGH**	5.40	8.80	0.88	2.05	2.69	0.88	0.91	1.89	5.30	10.50

Clevis Sling Hook – Code S

- For use with both G80 and G100 chain.
- Unique cradle grab design.
- 100% proof-tested.
- Quenched and tempered alloy steel.
- Fatigue rated.
- Durable powder-coated finish.
- Replacement pin available.
- Design factor 4:1.



Shown with optional latch

Chain Size (in.)	[1]Rated Capacity* (lbs.)	Part Number	Dimensions (in.)									Weight Each (lbs.)
			D	G	H	I	L	M	O	P	R	
9/32	4,300	**932DCSH**	3.53	5.55	0.38	0.75	0.36	0.83	1.32	1.11	3.75	1.20
3/8	8,800	**38DCSH**	4.54	6.93	0.47	1.00	0.51	1.06	1.34	1.51	4.58	2.21
1/2	15,000	**12DCSH**	5.48	8.28	0.58	1.33	0.63	1.38	1.87	1.55	5.59	4.22
5/8	22,600	**58DCSH**	6.20	9.61	0.71	1.47	0.75	1.69	2.11	1.83	6.44	6.64
3/4	35,300	**34DCSH**	7.63	11.79	1.88	1.88	0.94	2.09	2.55	2.51	7.74	11.22

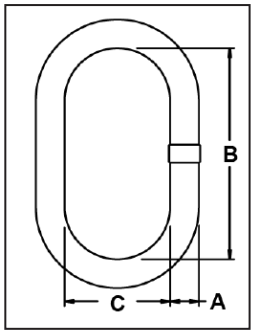
* Latches are not included. If latches are required, you must specify when ordering.
[1]Rated Capacity also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

CHAIN SLING HARDWARE

Oblong Master Link – Code O

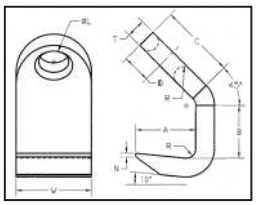
- For use with both G80 and G100 chain, web bridle and *Tuflex* bridle slings.
- 100% proof-tested.
- May be used for mechanical and welded sling assemblies.
- Durable powder-coated finish.
- Design factor 4:1.



Master Link Size* (in.)			Part Number	Standard Oblong for Size and Configuration of Chain Sling				Weight Each (lbs.)
Diameter Material A	Inside Length B	Inside Width C		Single	Double	Triple	Quad	
13/32	3.00	1.50	**1332DOL**	7/32	7/32	–	–	0.3
1/2	5.00	2.50	**12DOL**	9/32	9/32	7/32	7/32	0.9
3/4	6.00	3.00	**34DOL**	3/8	3/8	9/32	9/32	2.5
1	8.00	4.00	**1DOL**	1/2 or 5/8	1/2	3/8	3/8	5.8
1-1/4	8.75	4 .38	**114DOL**	3/4	5/8	1/2	1/2	9.2
1-1/2	10.50	5 .25	**112DOL**	7/8	3/4	5/8	5/8	16
1-3/4	12.00	6.00	**134DOL**	1	7/8	3/4	3/4	25
2	14.00	7.00	**2G8OL**	1-1/4	1	7/8	7/8	37
2-1/4	16.00	8.00	**214G8OL**	–	1-1/4	1	1	54
2-3/4	16.00	9.00	**234G8OL**	–	–	1-1/4	1-1/4	85

Plate Hooks – G80

- Made with alloy steel.
- May be used for mechanical and welded sling assemblies.
- Design factor 4:1.
- Ratings are per hook.
- Do not use at angle other than 60° from horizontal.



Chain Size (in.)	[1]Rated Capacity* (lbs.)**	Part Number	Dimensions (inches)									Weight Each (lbs.)
			A	B	C	D	L	N	R	T	W	
9/32	4,200	**932G8PH**	2.00	1.75	2.50	0.93	1.00	0.12	0.31	0.63	2.50	2.80
3/8	7,400	**38G8PH**	2.63	3.00	4.31	1.18	1.12	0.18	0.38	0.75	2.75	5.70
1/2	13,000	**12G8PH**	3.50	4.00	4.38	1.50	1.50	0.25	0.50	1.00	3.50	13.0
5/8	20,400	**58G8PH**	4.38	5.00	4.43	1.87	1.88	0.31	0.63	1.25	5.00	26.5
3/4	30,000	**34G8PH**	5.19	6.00	6.50	2.38	2.25	0.38	0.75	1.50	5.75	42.0
7/8	40,000	**78G8PH**	6.00	7.00	7.63	2.50	2.63	0.473	1.00	1.75	6.00	65.0

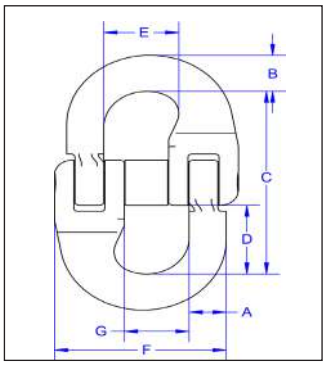
+Never use plate hooks on a quad sling. ++Do not attempt to lift using only one plate hook.
[1]Rated Capacity also referred to as "Working Load Limit."

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

CHAIN SLING HARDWARE

Mechanical Coupling Links

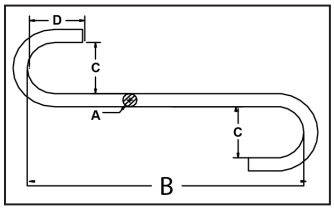
- Used for overhead lifting slings to connect chain branches to the master link and the hook to attachments.
- Constructed of drop-forged alloy steel.
- Can be used with G80 and G100 chain.
- Must be matched to chain size.
- Do not use for chain repair or splicing.
- Meets ASTM A952 standards.
- Design factor 4:1.



Grade	Chain Size (in.)	[1]Rated Capacity* (lbs.)	Part Number	Dimensions (in.)							Weight Each (lbs.)
				A	B	C	D	E	F	G	
100	**7/32**	2,700	**732G10H**	0.29	0.28	1.85	0.69	0.61	1.44	0.52	0.27
100	**9/32**	4,300	**932G10H**	0.37	0.44	1.94	0.69	0.68	1.58	0.61	0.28
100	**3/8**	8,800	**38G10H**	0.52	0.50	3.02	1.15	1.05	2.33	0.81	0.84
100	**1/2**	15,000	**12G10H**	0.64	0.68	3.79	1.43	1.29	2.98	1.10	1.87
100	**5/8**	22,600	**58G10H**	0.81	0.91	4.50	1.70	1.54	3.57	1.32	3.13
100	**3/4**	35,200	**34G10H**	0.97	1.07	5.36	2.06	1.78	4.69	1.52	5.75
80	**7/8**	34,200	**78G8H**	1.16	1.05	5.25	1.97	2.09	4.95	1.88	5.98
80	**1**	47,700	**1G8H**	1.32	1.25	6.00	2.31	2.37	5.87	2.33	9.47
80	**1-1/4**	72,300	**114G8H**	1.57	1.53	6.81	2.17	2.98	7.04	2.67	16.61

S-Hooks – G80

- Made from alloy material.
- 100% proof-tested.
- Durable powder-coated finish.
- Working Load Limit is embossed on hooks.
- Design factor 4:1.



Stock Dia. (in.)	[1]Rated Capacity* (lbs.)	Part Number	Dimensions (in.)				Weight Each (lbs.)
			A	B	C	D	
9/32	210	**932G8SH**	0.28	4.50	1.13	1.13	0.15
3/8	410	**38G8SH**	0.38	6.00	1.50	1.50	0.35
1/2	870	**12G8SH**	0.56	7.50	2.00	2.00	1.04
5/8	1,120	**58G8SH**	0.63	9.00	2.50	2.50	1.56
3/4	1,730	**34G8SH**	0.75	10.50	3.00	3.00	2.60
7/8	2,370	**78G8SH**	0.88	12.00	3.50	3.50	4.20
1	2,920	**1G8SH**	1.00	13.00	4.00	4.00	6.00
1-5/32	3,150	**1532G8SH**	1.13	15.00	4.50	4.50	9.30
1-1/4	4,450	**114G8SH**	1.25	16.00	5.00	5.00	11.70
1-3/8	6,100	**138G8SH**	1.38	17.00	5.50	5.50	15.40
1-1/2	6,250	**112G8SH**	1.50	18.00	6.00	6.00	19.50

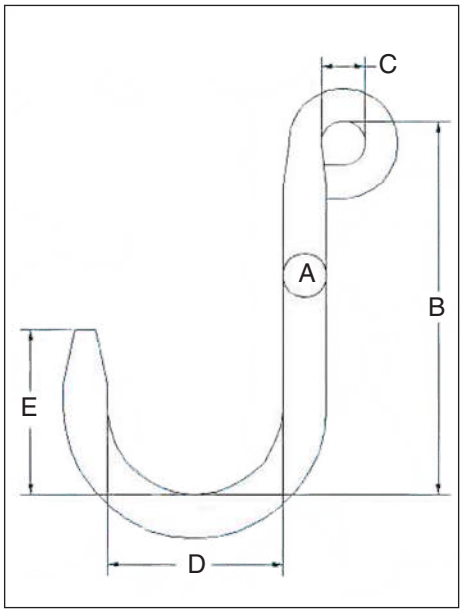
[1]Rated Capacity also referred to as "Working Load Limit".

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Do not use slings at angles of less than 30°. Refer to the Effect of Angle chart found in the HELP section of this catalog.

FOUNDRY SORTING HOOKS & J-HOOKS

Welded alloy steel hooks are heat-treated with a shot blast finish, proof-tested and certified.

Foundry Sorting Hooks



Standard Foundry Sorting Hooks - G80

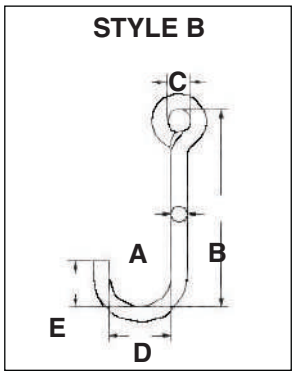
Part Number	A	B	C	D	E	Chain Size Eye Fits Mechanical Coupler	[1]Rated Capacity* (lbs.)
FSA050	0.50	6.00	0.75	2.50	2.00	0.28	500
FSA063	0.63	8.50	0.75	3.50	3.25	0.28	800
FSA075	0.75	8.50	0.75	3.50	3.25	0.28	1300
FSA088	0.81	8.50	0.88	3.50	3.25	0.38	1600
FSA100	1.00	8.50	1.00	4.00	3.75	0.38	2500
FSA113	1.13	8.50	1.00	4.00	4.00	0.38	3500
FSA125	1.25	8.50	1.25	4.00	4.00	0.50	4500
FSA150	1.50	8.50	1.25	5.00	4.00	0.50	6000

Short Foundry Sorting Hooks - G80

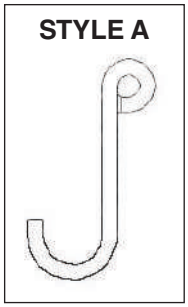
Part Number	A	B	C	D	E	Chain Size Eye Fits Mechanical Coupler	[1]Rated Capacity* (lbs.)
FSA050S	0.50	6.00	0.75	3.00	3.00	0.28	450
FSA063S	0.63	6.00	0.75	3.00	3.00	0.28	900
FSA075S	0.75	6.00	0.75	3.00	3.00	0.28	1400
FSA088S	0.88	6.00	0.88	3.00	3.00	0.38	2000
FSA100S	1.00	6.00	1.00	3.00	3.00	0.38	3000
FSA113S	1.13	6.00	1.00	3.00	3.00	0.38	4000
FSA125S	1.25	6.00	1.25	3.00	3.00	0.50	5500

Standard J-Hooks

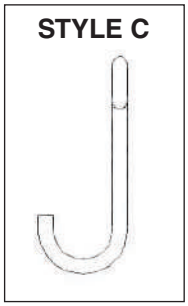
STYLE B



STYLE A



STYLE C



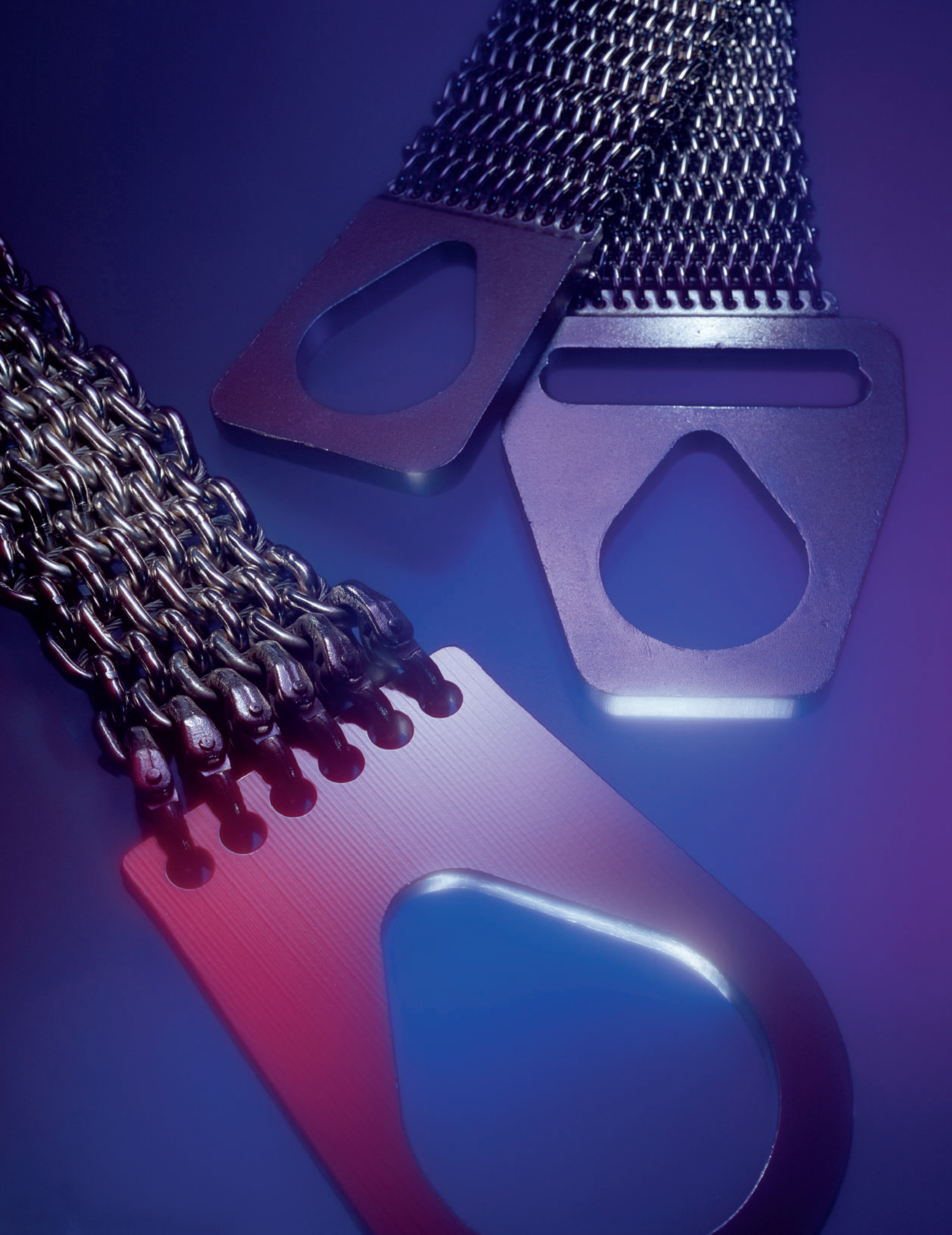
Flat Tip J-Hooks - G80

Part Number	Part Number	Part Number	A	B	C	D	E	[1]Rated Capacity* (lbs.)
JAA038	JBA038	JCA038	0.38	6.00	0.75	1.50	1.13	350
JAA050	JBA050	JCA050	0.50	8.00	0.75	2.00	1.50	650
JAA063	JBA063	JCA063	0.63	9.00	1.00	2.50	1.88	850
JAA075	JBA075	JCA075	0.75	10.00	1.00	3.00	2.25	1200
JAA088	JBA088	JCA088	0.88	12.00	1.00	3.50	2.63	1500
JAA100	JBA100	JCA100	1.00	14.00	1.25	4.00	3.00	2000
JAA113	JBA113	JCA113	1.13	15.00	1.25	4.50	3.37	2250
JAA125	JBA125	JCA125	1.25	16.00	1.50	5.00	3.75	2750
JAA138[2]	*JBA138[2]*	*JCA138[2]*	*1.38*	*17.00*	*1.50*	*5.50*	*4.13*	*3000*
JAA150[2]	*JBA150[2]*	*JCA150[2]*	*1.50*	*18.00*	*2.00*	*6.00*	*4.50*	*3500*
JAA175[2]	*JBA175[2]*	*JCA175[2]*	*1.75*	*20.00*	*2.580*	*7.00*	*5.25*	*4000*
JAA200[2]	*JBA200[2]*	*JCA200[2]*	*2.00*	*24.00*	*3.00*	*8.00*	*6.00*	*5000*

* Rated Capacity based on bearing to bearing pull. Tip load capacity averages 30% of bearing to bearing rating.

[1] Rated Capacity also referred to as "Working Load Limit."

[2] Custom: Made to Order



WIRE MESH SLINGS

Widely used in metalworking shops and steel warehouses where loads are abrasive, hot or tend to cut web slings.

Features and Benefits

Promotes Safety

- Steel construction resists abrasion and cutting.
- Each sling is permanently stamped with capacity and serial number.
- Grips contour of the load.
- Each sling is proof-tested and certified.

Saves Money

- Grips load firmly without stretching - reduces load damage.
- Resists abrasion and cutting for greater sling life.
- Low stretch and wide-bearing area distributes load to help avoid damage.
- The slings are repairable.
- Alloy steel end fittings are zinc plated for long life.
- Wire mesh is galvanized to resist corrosion.

Saves Time

- Width of mesh helps control and balance load.
- End fittings accommodate most large crane hooks.

Environmental Considerations

- Wire mesh slings shall not be used at temperatures above 550°F.
- Store in a clean, dry area.

Roughneck Wire Mesh Sling Construction - 10 Gage Standard

Alloy steel end fittings are zinc plated. Mesh is 10 gage galvanized high tensile steel (12 gage upon request).
Optional: Stainless steel mesh is available for use in corrosive environments.

How to Order Wire Mesh Slings

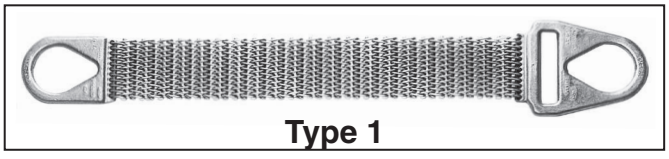
6 — Mesh Width in inches

T1 — **T1** – Type 1 (Triangle/Choker)
T2 – Type 2 (Triangle/Triangle)

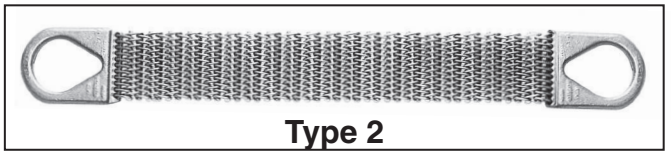
10 — Wire Gage Construction (**10**ga. or **12**ga.)

X — 'X'

10 — Sling Length in feet
Use pull to pull length



Type 1



Type 2

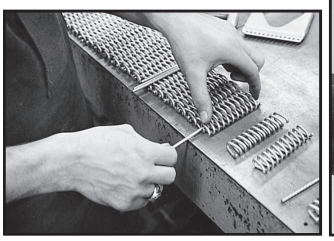
* **⚠ WARNING** **Do not edge load. Full width of mesh must contact load.**

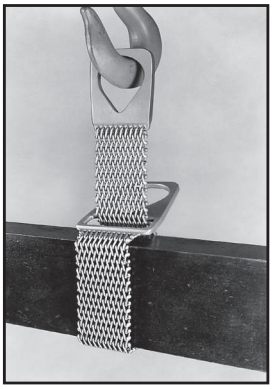
WIRE MESH SLINGS

Wire Mesh Width (in.)	Rated Capacity (lbs.)*		
	Vertical	Choker	Basket
10 Gage – Heavy Duty			
2	2,300	2,300	4,600
3	3,500	3,500	7,000
4	4,800	4,800	9,600
6	7,200	7,200	14,400
8	9,600	9,600	19,200
10	12,000	12,000	24,000
12	14,400	14,400	28,800
14	16,800	16,800	33,600
16	19,200	19,200	38,400
18	21,600	21,600	43,200
20	24,000	24,000	48,000
12 Gage – Medium Duty			
2	1,600	1,600	3,200
3	2,400	2,400	4,800
4	3,200	3,200	6,400
6	4,800	4,800	9,600
8	6,400	6,400	12,800
10	8,000	8,000	16,000
12	9,600	9,600	19,200

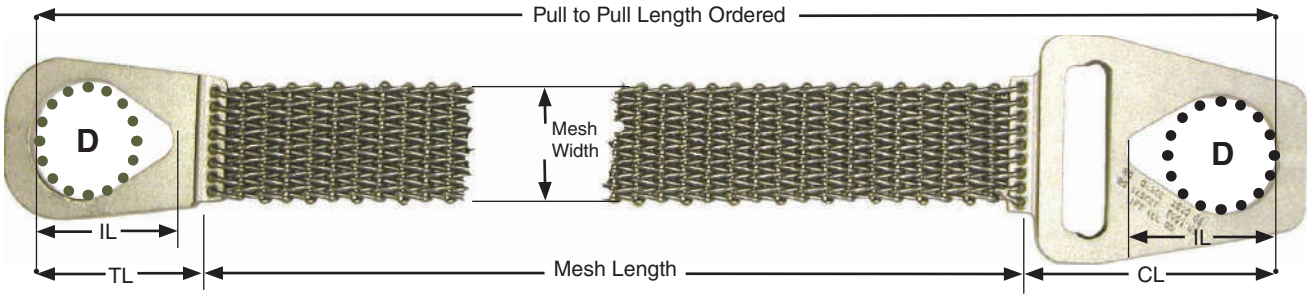
Under normal usage, wire mesh slings will eventually need repairs. *Lift-All* can perform this service and re-certify all sling brands at relatively low cost. Wire mesh slings that are repaired are guaranteed to meet or exceed original specifications. Five *Lift-All* factories are strategically located in the U. S. to ensure prompt service. Wire mesh slings should be removed from service and/or repaired under the following conditions.

- A broken weld or brazed joint along the sling edge.
- A broken wire in any part of the mesh.
- Reduction in wire diameter of 25% due to abrasion or 15% due to corrosion.
- Lack of flexibility due to distortion of the mesh.
- Visible distortion or wear of either end fitting.
- Cracked end fitting.





NOTE: The choker fitting must not be positioned against a load edge or directly on the triangle fitting.



Nom. Mesh Width (in.)	Terminal Dimensions (in.)				Terminal Thickness (in.)		Approx. Weight of 3-ft.(lbs.) Type 1 Slings		Mesh Weight (Per ft. in lbs.)	
MW	D	IL	TL	CL	10-GA	12-GA	10-GA	12-GA	10-GA	12-GA
2 3	2.00 2.25	3.00 3.38	3.88 4.38	5.63 6.25	1/2 1/2	1/2 1/2	6 8	5 8	1.3 1.9	1.1 1.8
4 6	3.00 3.50	4.00 4.50	5.00 5.63	6.75 7.75	1/2 1/2	1/2 1/2	10 16	10 14	2.5 3.9	2.3 3.4
8 10	4.50 4.75	6.00 6.25	7.50 8.00	9.00 10.88	1/2 1/2	1/2 1/2	22 28	21 26	5.1 6.4	4.5 5.6
12 14	5.00 5.00	6.50 6.50	8.63 8.75	11.38 12.75	1/2 1/2	1/2 1/2	34 40	32 37	7.6 8.9	6.8 7.9
16 18	5.25 5.50	7.00 7.50	9.13 9.75	14.13 15.75	3/4 3/4	1/2 1/2	57 67	38 44	10 11	9.0 10
20	5.75	7.75	10.13	17.00	3/4	1/2	77	51	13	11

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart in General Information section.

CHAIN MESH SLINGS

Specialty slings for rugged applications

Features and Benefits

Promotes Safety

- Each sling permanently stamped with capacity and serial number for traceability.
- Steel construction resists abrasion and cutting.
- Each sling proof-tested and certified.

Saves Time

- Width of mesh helps to balance and control loads.
- End fittings accommodate most large crane hooks.

Saves Money

- Alloy steel end fittings coupled with G100 chain resist abrasion and cutting for greater sling life.
- Repairable.
- Sling flexibility allows fast and easy connection to load.
- Low stretch and wide-bearing area distributes load to help avoid damage.

Inspection Criteria+ for *Roughneck* Chain Mesh Slings

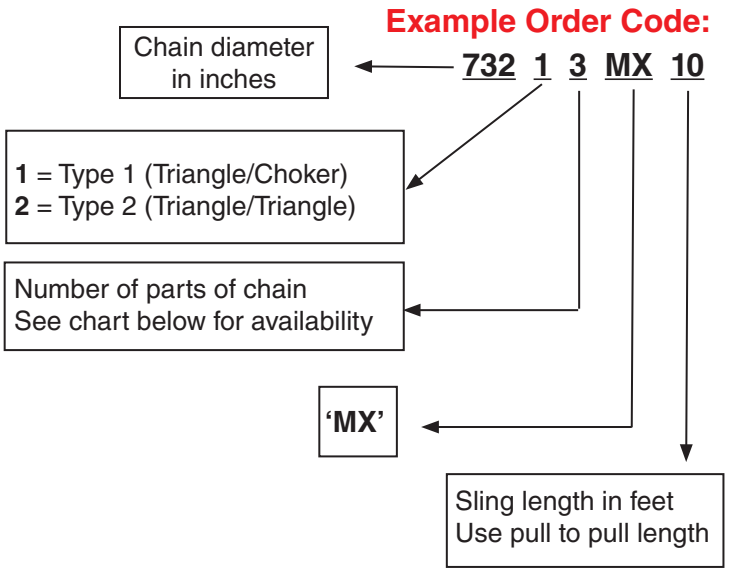
Remove sling from service if any of the following conditions are visible:

- Wear, nicks, cracks, breaks, gouges, stretch, bends or weld spatter on chain or attachments.
- Discoloration from excessive temperature.
- Chain links and attachments won't hinge freely with adjacent links.
- Visible distortion or deformation of fitting.
- 15% reduction of original cross-sectional area of metal at any point of either end fitting.
- Cracked end fitting.

Environmental Considerations

- Rated capacities of chain mesh are reduced at temperatures above 400°F.
- Store in clean, dry area to avoid corrosive action.

How to Order Chain Mesh Slings



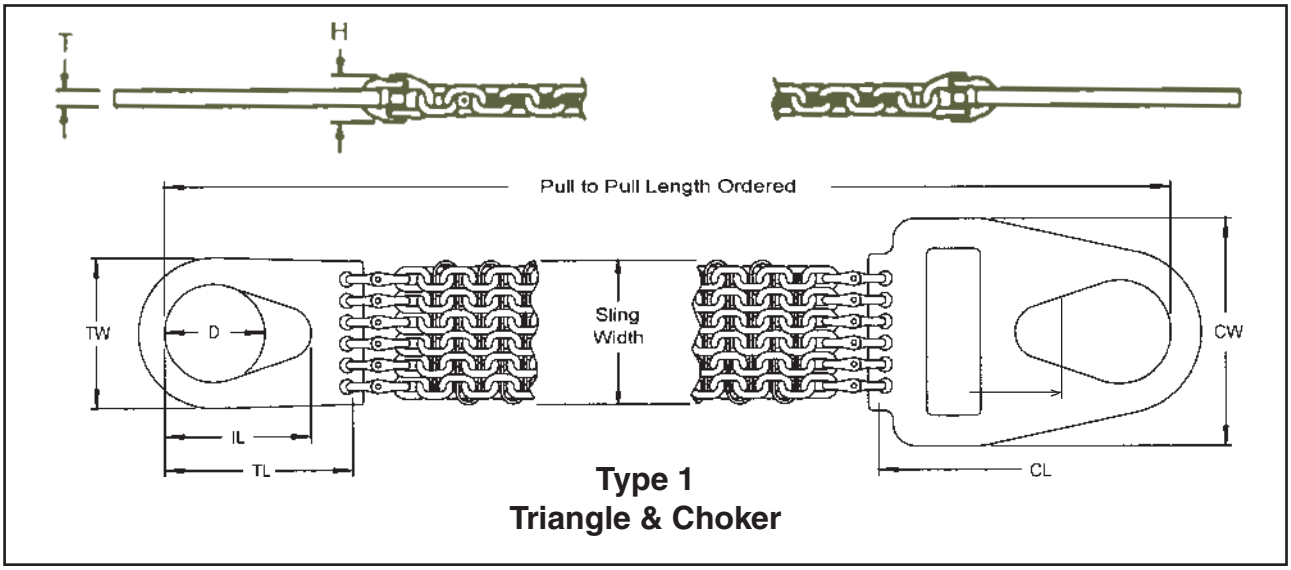
Chain Size (in.)	Parts of Chain	Sling Width (in.)	Rated Capacity (lbs.)*		
			Vertical	Choker	Basket
7/32	3	1-1/2	5,000	5,000	10,000
	4	2.00	6,700	6,700	13,400
	5	2-1/2	8,400	8,400	16,800
	6	3.00	10,000	10,000	20,000
9/32	3	2-1/8	8,400	8,400	16,800
	4	2-3/4	11,000	11,000	22,000
	5	3-3/8	14,000	14,000	28,000
	6	4.00	16,800	16,800	33,600
3/8	3	3-1/4	17,000	n/a	34,000
	4	4-3/8	22,700	n/a	45,400
	5	5-3/8	28,400	n/a	56,800
	6	6-1/2	34,000	n/a	68,000
1/2	2	3.00	19,200	n/a	38,400
	3	4-1/2	28,800	n/a	57,600
	4	6.00	38,400	n/a	76,800

For more details, see inspection criteria at the end of the CHAIN section of this catalog.

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

* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to Effect of Angle chart in General Information section of this catalog.

CHAIN MESH SLINGS



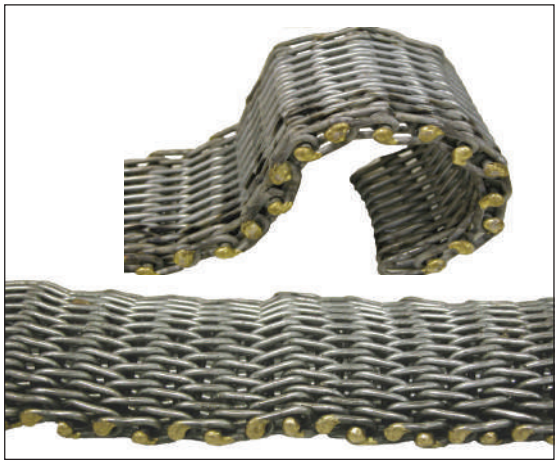
Type 1
Triangle & Choker

Chain Size (in.)	Parts of Chain	Sling Width (in.)	Terminal Dimensions (in.)								5-ft. Type 2 Weight (lbs.)	Weight per ft. (lbs.)
			D	IL	TL	TW	CL	CW	T	H		
7/32	3	1-1/2	2.75	4.13	6.75	4.75	9.00	7.13	0.38	1.25	10	1.3
	4	2.00	3.00	4.50	7.13	5.00	9.38	7.13	0.38	1.25	12	1.8
	5	2-1/2	3.50	5.25	8.00	5.50	10.13	7.75	0.38	1.25	14	2.2
	6	3.00	3.75	5.63	8.25	5.75	10.63	8.25	0.38	1.25	17	2.7
9/32	3	2-1/8	2.75	4.13	6.75	4.75	9.00	7.13	0.50	1.75	14	2.2
	4	2-3/4	3.00	4.50	7.13	5.00	9.38	7.25	0.50	1.75	18	3.0
	5	3-3/8	3.50	5.25	8.0	5.50	10.13	7.75	0.50	1.75	22	3.7
	6	4.00	3.75	5.63	8.25	5.75	10.63	8.25	0.50	1.75	26	4.5
3/8	3	3-1/4	3.50	5.25	6.88	5.00	–	–	0.75	2.25	30	4.4
	4	4-3/8	4.38	6.50	8.13	6.38	–	–	0.75	2.25	41	5.8
	5	5-3/8	4.38	6.50	8.38	7.38	–	–	0.75	2.25	55	7.3
	6	6-1/2	5.25	7.88	9.75	8.25	–	–	0.75	2.25	59	8.8
1/2	2	3.00	3.50	5.25	6.88	5.00	–	–	1.0	3.13	33	5.2
	3	4-1/2	4.38	6.50	8.38	6.38	–	–	1.0	3.13	50	7.7
	4	6.00	5.25	7.88	9.75	7.75	–	–	1.0	3.13	62	10

Note: Length tolerance ± 2 chain links so plane is maintained.

INSPECTION CRITERIA FOR WIRE MESH SLINGS

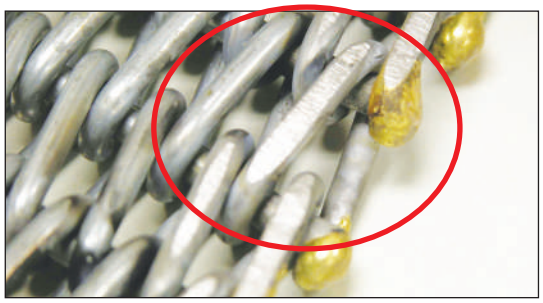
The following photos illustrate typical damage that occurs, indicating that the sling must be removed from service. Please review the Safety Bulletin provided with each sling. For inspection frequency requirements, see the General Information section of this catalog.



OVERLOAD / UNEVEN LOADING

WHAT TO LOOK FOR: Mesh does not lie flat, appears distorted and/or will not bend easily.

TO PREVENT: Do not load in excess of rated capacity. Load edges must be straight, flat, and in contact with full width of mesh at bearing points.



WEAR

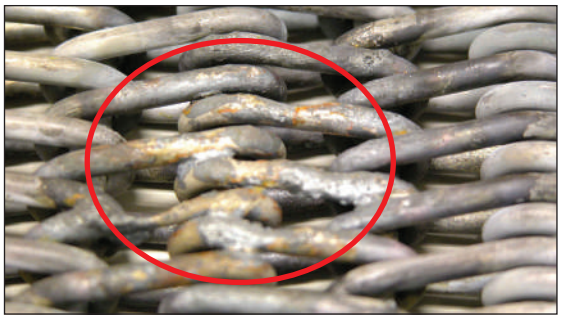
WHAT TO LOOK FOR: Flat areas on the individual wires. When wires have lost 25% or more of their original diameter, the sling must be taken out of service.

TO PREVENT: Do not drag sling on the ground and do not drag loads over slings. Protect high wear areas.

CORROSION / HEAT DAMAGE

WHAT TO LOOK FOR: Areas of discoloration. Remove slings with wire diameter reduction of 15% or more. Slings exposed to temperatures of 550°F or more must be removed from service.

TO PREVENT: Hang slings for storage away from moisture. Do not use mesh slings above 550°F. Consider using stainless steel mesh.



BROKEN WELD OR BRAISED JOINT

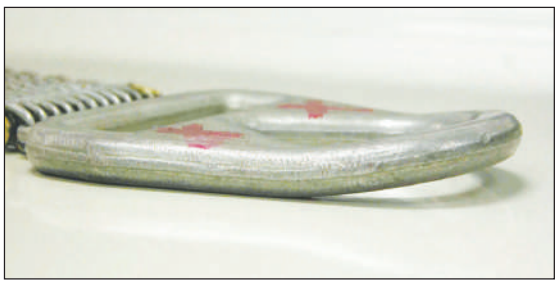
WHAT TO LOOK FOR: A crack or separation of the wire at the edge or in the body of the mesh.

TO PREVENT: Do not side load mesh. Tension on sling must be distributed evenly across the entire width of the mesh.

DISTORTION OR WEAR OF END FITTINGS

WHAT TO LOOK FOR: Fittings that do not lie flat or have obvious areas of wear.

TO PREVENT: Never lift with fitting against a load edge or set load directly onto sling. Reduce wear by keeping loads within the rated capacity of the sling.



LOAD HUGGER BASICS

Lift-All Load Hugger cargo control and load securement products offer the van and flatbed operator a wide variety of options to meet U.S. DOT, FMCSA (Federal Motor Carrier Safety Administration), and CVSA (Commercial Vehicle Safety Alliance) requirements.*

Features and Benefits

- Meets all U.S. DOT, FMCSA, and CVSA regulations.
- Low stretch polyester webbing allows for more secure cargo control.
- All hooks and chain assemblies equal or exceed webbing strength.
- Webbing is soft and comes in varying widths; will not damage expensive cargo.
- Large selection; choose the capacity that's right for the load carried.
- Lightweight and easy to handle.
- Large selection of end fastenings, winches, and ratchets make choosing and using the correct assembly easy.
- Custom lengths available.

Inspection Criteria

Remove from service if any of the following are visible:

- Cuts, holes, surface abrasion or crushed areas.
- Burns or chemical damage.
- Separation of load carrying stitch pattern.
- Hardware, fittings or tensioning devices which are broken, bent, twisted, cracked, or have nicks and gouges.
- Knotted webbing.
- Splices or other makeshift repairs.
- The loop ends are damaged.

See illustrations of damaged webbing on pages 34 & 35; damaged chain and hooks on pages 106 and 107.

Environmental Considerations

- Synthetic webbing severely degrades at temperatures above 200°F.
- Prolonged exposure to ultraviolet light adversely affects synthetic webbing. Tiedown straps become bleached and stiff when exposed to sunlight or arc welding.
- Many acids, alkalis, and chemicals have an adverse effect on nylon and polyester. See chart on page 16.

*CVSA (Commercial Vehicle Safety Alliance) www.cvsa.org

Safe Operating Practices

- Inspect tiedown straps and all hardware when the load is first being secured.
- Re-tighten tiedowns periodically during use.
- Never use *Load Huggers* for anything other than securing cargo. Do not use for lifting loads or towing vehicles.
- The load should be securely blocked and stabilized before tensioning the straps.
- Never exceed rated capacities.
- Use caution when tossing straps and chain anchor assemblies over a load.
- Check installation of portable winches. The ratchet pawl must be at the top of the toothed wheel and bolts tight against the rub rail.
- Weld-on winches should not be cracked.
- Corner protectors or sling protection must be used to protect *Load Huggers* from edges and abrasion.
- All hardware must be in line with the direction of pull to achieve full strength.

Definitions

Working Load Limit (WLL): The maximum load that may be applied to an assembly or component in straight tension.

Ultimate Strength: The load at which an assembly or component will fail in testing.

Department of Transportation Regulations 393.102(b) uses the Ultimate Breaking Strength to calculate the number of tiedown assemblies required to secure a load.

Lift-All publishes Ultimate Strength for this purpose only. For safety, we recommend that only Working Load Limits are used for your calculations.

WARNING Always protect tiedowns from being cut by corners and edges.

Load Hugger™ Cargo Control

WEB SELECTION

Two **styles** of webbing are available for our 2" through 4" ratchet assemblies and winch straps:
Standard Yellow and **Hi-Vis *Tuff-Edge***

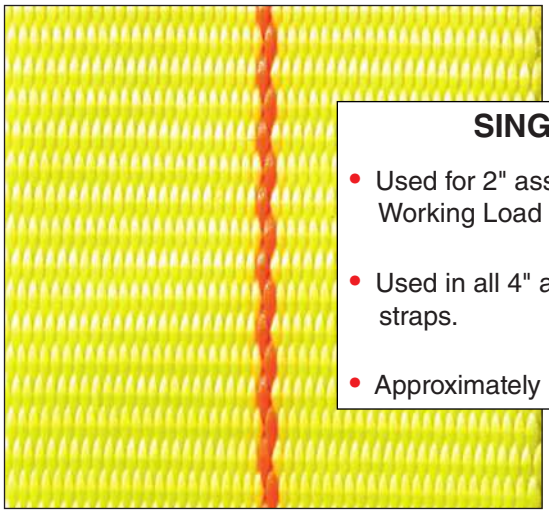
Two strength classes are available for 2" assemblies:
Single Stripe and **Double Stripe**

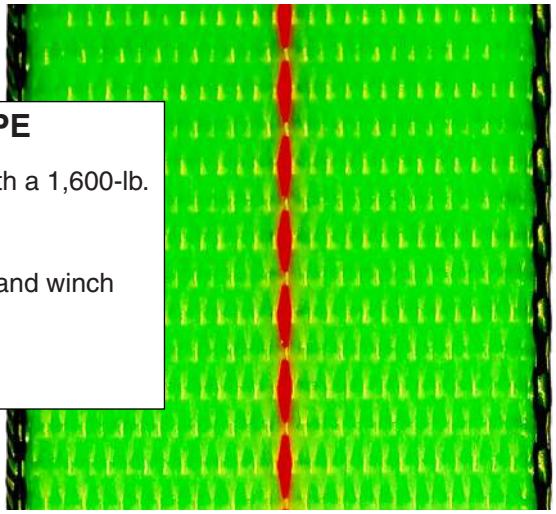
STANDARD TIEDOWN WEBBING

This polyester webbing offers exceptional value for everyday use.

HI-VIS *TUFF-EDGE* WEBBING

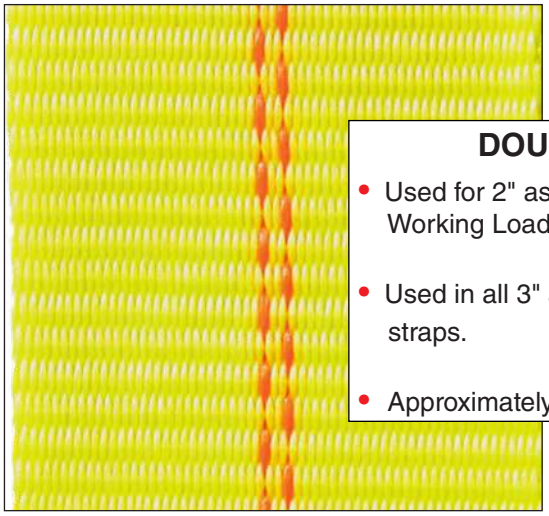
The brightness of our polyester **Hi-Vis *Tuff-Edge*** webbing allows for increased visibility on the roadside. Special black polymer edge yarns provide 32% better edge cut resistance for longer assembly life.

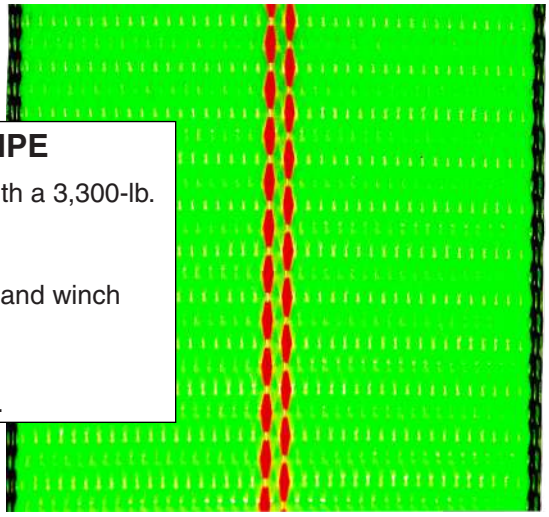




SINGLE STRIPE

- Used for 2" assemblies with a 1,600-lb. Working Load Limit.
- Used in all 4" assemblies and winch straps.
- Approximately 1/32" thick.





DOUBLE STRIPE

- Used for 2" assemblies with a 3,300-lb. Working Load Limit.
- Used in all 3" assemblies and winch straps.
- Approximately 3/64" thick.

RATCHET ASSEMBLIES

Type A Assemblies

One-piece assemblies for use without end fittings.
Length measured from ratchet mandrel to end of webbing.

Type B Assemblies

Two-piece assemblies with one piece attached to the ratchet, and the other end is adjustable. Numerous end fittings are available to handle any requirements. (See following pages).

Series 1,000

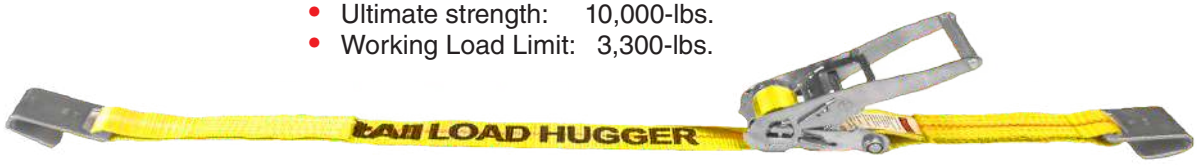
- **1" Wide Polyester Webbing**
- Ultimate strength: 2,100-lbs. *
- Working Load Limit: 700-lbs. *

Series 5,000

- **2" Wide Polyester Webbing**
- Ultimate strength: 5,000-lbs.
- Working Load Limit: 1,600-lbs.

Series 10,000

- **2" Wide Polyester Webbing**
- Ultimate strength: 10,000-lbs.
- Working Load Limit: 3,300-lbs.



Series 15,000

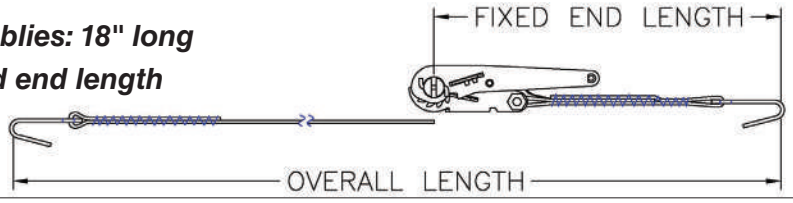
- **3" or 4" Wide Polyester Webbing**
- Ultimate strength: 15,000-lbs.
- Working Load Limit: 5,000-lbs.

Type B Measurement - FIXED END

2" Wide Assemblies: 16" long

1" Wide, 3" Wide, and 4" Wide Assemblies: 18" long

Note: Chain Anchor adds 14" to fixed end length

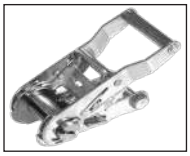


* **Series 1,000 Exception: Series 1,000 Ratchet Assembly with Flat Hooks, Ultimate Strength is 1,000-lbs. and Working Load Limit is 330-lbs.**

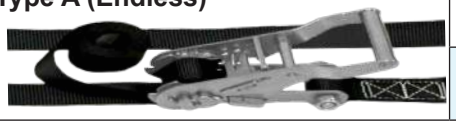
Load Hugger™ Cargo Control

1" TIEDOWN ASSEMBLIES

1" Cam Buckle



1" Ratchet

Series 1,000				
WEB WIDTH & TYPE	1" Wide Polyester			
BUCKLE	RATCHET		CAM	
ULTIMATE STRENGTH*	2,100 lbs.		1,000 lbs.	
WORKING LOAD LIMIT	700 lbs.		330 lbs.	
	Buckle	Part No. 10' Length**	Part No. 15' Length**	Weight (lbs.)
Flat Hook** 	Ratchet	**60102**	**6A102**	1.1
	Cam	**60110**	**6A110**	.7
Stamped Snap Hook 	Ratchet	**60104**	**6A104**	1.5
	Cam	**60113**	**6A113**	1.0
U-Hook 	Ratchet	**60101**	**6A101**	1.1
	Cam	**60109**	**6A109**	.7
Hook & Keeper 	Ratchet	**60105**	**6A105**	1.5
	Cam	**60114**	**6A114**	1.1
Open Hook** 	Ratchet PE Hook	**60103**	**6A103**	1.7
	Ratchet ZP Hook	**60106**	**6A106**	1.6
	Cam PE Hook	**60111**	**6A111**	1.3
PE Coated (shown) Zinc Plated (Optional)	Cam ZP Hook	**60112**	**6A112**	1.2
Type A (Endless) 	Ratchet	**60107**	**6A107**	.9
	Cam	**60108**	**6A108**	.5

* Ultimate strength of assembly when new. ** Non-standard lengths available
*** Exception: Series 1,000 *Ratchet Assembly with Flat Hooks*, WLL is 330-lbs. and Ultimate Strength is 1,000-lbs.

POPULAR

1" X 15' Ratchet Tiedown Assembly: 16-pc. Display Box
6A103B

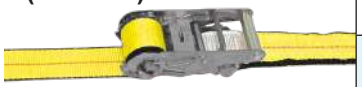
Both assemblies have PE coated open hooks.

Our 1" X 12' Retractable Ratchet Tiedown Assembly in a convenient 2-Pack.
60203

RETRACTABLE

Load Hugger™ Cargo Control

RATCHET ASSEMBLIES

		Series 5,000			Series 10,000		
WEB WIDTH & TYPE		2" Wide Polyester			2" Wide Polyester		
ULTIMATE STRENGTH*		5,000 lbs.			10,000 lbs.		
WORKING LOAD LIMIT		1,600 lbs.			3,300 lbs.		
	Length**	Standard Part No.	*Tuff-Edge* Part No.	Weight (lbs.)	Standard Part No.	*Tuff-Edge* Part No.	Weight (lbs.)
Flat Hook 	27'	60501	TE60501	4.6	61001	TE61001	5.8
	30'	60502	TE60502	4.8	61002	TE61002	6.0
Stamped Triangle 	27'	60503	TE60503	4.2	61003	TE61003	5.2
	30'	60504	TE60504	4.4	61004	TE61004	5.4
Stamped Snap Hook 	27'	60505	TE60505	4.6	61005	TE61005	6.2
	30'	60506	TE60506	4.8	61006	TE61006	6.4
Twisted Snap Hook 	27'	60507	TE60507	5.2	61007	TE61007	5.6
	30'	60508	TE60508	5.4	61008	TE61008	5.8
Forged Snap Hook 	27'	60509	TE60509	5.8	61009	TE61009	6.4
	30'	60510	TE60510	6.0	61010	TE61010	6.6
D-Ring 	27'	60511	TE60511	4.2	n/a	n/a	n/a
	30'	60512	TE60512	4.4	n/a	n/a	n/a
U-Hook 	27'	60513	TE60513	4.6	26422	TE26422	5.8
	30'	60514	TE60514	4.8	26423	TE26423	6.0
Hook & Keeper 	27'	60515	TE60515	4.8	n/a	n/a	n/a
	30'	60516	TE60516	5.0	n/a	n/a	n/a
Chain Anchor Assembly 	27'	n/a	n/a	n/a	61013	TE61013	13.0
	30'	n/a	n/a	n/a	61014	TE61014	13.2
Type A (Endless) 	27'	60517	TE60517	3.8	61011	TE61011	4.4
	30'	60518	TE60518	4.0	61012	TE61012	4.6

*** Ultimate strength of assembly when new.**

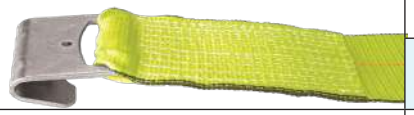
**** Non-standard lengths available**

⚠ WARNING Always protect Tiedowns from being cut by corners and edges.

Note: Since end terminations vary proportionally with size, check with *Lift-All* if critical dimensions are required. Non-standard lengths available upon request.

Load Hugger™ Cargo Control

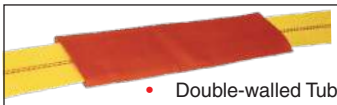
RATCHET ASSEMBLIES

		SERIES 15,000					
WEB WIDTH & TYPE		3" Wide Polyester			4" Wide Polyester		
ULTIMATE STRENGTH*		15,000 lbs.			15,000 lbs.		
WORKING LOAD LIMIT		5,000 lbs.			5,000 lbs.		
	Length**	Standard Part No.	*Tuff-Edge* Part No.	Wt. (lbs.)	Standard Part No.	*Tuff-Edge* Part No.	Wt. (lbs.)
Flat Hook 	27'	**20482**	**TE20482**	12.8	**26424**	**TE26424**	13.6
	30'	**20483**	**TE20483**	13.2	**26425**	**TE26425**	14.0
Forged Triangle 	27'	**20484**	**TE20484**	14.0	**26430**	**TE26430**	14.8
	30'	**20485**	**TE20485**	14.4	**26431**	**TE26431**	15.2
Chain Grab Hook 	27'	**20486**	**TE20486**	13.4	**26426**	**TE26426**	14.2
	30'	**20487**	**TE20487**	13.8	**26427**	**TE26427**	14.6
Chain Anchor Assembly 	27'	**20488**	**TE20488**	16.8	**26432**	**TE26432**	17.6
	30'	**20489**	**TE20489**	17.2	**26433**	**TE26433**	18.0
U-Hook 	27'	**20494**	**TE20494**	13.0	**26436**	**TE26436**	13.8
	30'	**20495**	**TE20495**	13.2	**26437**	**TE26437**	14.2
7-in. Sewn Eye 	27'	**20490**	**TE20490**	11.0	**26428**	**TE26428**	11.8
	30'	**20491**	**TE20491**	11.4	**26429**	**TE26429**	12.2
Type A (Endless) 	27'	**20492**	**TE20492**	10.6	**26434**	**TE26434**	11.4
	30'	**20493**	**TE20493**	11.0	**26435**	**TE26435**	11.8

* Ultimate strength of assembly when new.

** Non-standard lengths available

Part No.	SLIDING SLEEVES FOR *LOAD HUGGERS* (Specify length when ordering)
60117	1-1/2" Flat Sliding Sleeve for 1" *Load Hugger*
60118	2-1/2" Flat Sliding Sleeve for 2" *Load Hugger*
60119	3-1/4" Flat Sliding Sleeve for 3" *Load Hugger*
60120	4-1/2" Flat Sliding Sleeve for 4" *Load Hugger*
	RATCHET PROTECTOR
1RP	1" Ratchet Protector
2RP	2" Ratchet Protector
3RP	3" Ratchet Protector
4RP	4" Ratchet Protector
	CORNER GUARD
CG	Corner Guard



Sliding Sleeve

- Double-walled Tubular Product
- Protects *Load Hugger* webbing from abrasion and helps resist cutting

Ratchet Protector

- A sewn fabric pad protects surface finish of cargo and ratchet mechanism

Corner Guard

- A movable, rust-proof copolymer corner guard
- Protects from sharp edges
- Tough enough for chain or webbing

WINCH STRAPS & WINCHES

Series 12,000 *Load Huggers*

3" & 4" Wide Polyester Winch Straps

- *Load Hugger* Winch Straps are designed for winches on flat bed trucks and trailers.
- Sling protection and corner protectors extend life of *Load Huggers.*
- Ultimate strength 15,000 lbs.
- Working load limit 5,000 lbs.
- Standard assemblies in 27' or 30' lengths.
- To order a non-standard strap, specify width, length, and end fitting.

Winches must be properly installed with ratchet pawl on top of toothed wheel to help prevent accidental disengagement.

Standard Winch #61222

For 3" & 4" *Load Hugger* Winch Straps

7.8-lbs.

Portable Winch #61221

For 3" & 4" *Load Hugger* Winch Straps

8.8-lbs.

36" Winch Bar #61223

For use with both 61221 and 61222 above

4.8-lbs.

EZ Winch Handle #61230

For use with both 61221 and 61222 above

1.2-lbs.

EZ Spool #61231

For use with both 61221 and 61222 above

2.5-lbs.

Web Width (in.)	Length* (ft.)	Standard Part No.	*Tuff-Edge* Part No.	Assembly Weight (lbs.)

Flat Hook

4	27	**61201**	**TE61201**	4.0
4	30	**61202**	**TE61202**	4.6
3	27	**61203**	**TE61203**	4.4
3	30	**61204**	**TE61204**	4.8

Forged Triangle

4	27	**61205**	**TE61205**	4.4
4	30	**61206**	**TE61206**	5.0
3	27	**61207**	**TE61207**	4.8
3	30	**61208**	**TE61208**	5.2

Grab Hook

4	27	**61209**	**TE61209**	4.2
4	30	**61210**	**TE61210**	4.8
3	27	**61211**	**TE61211**	4.6
3	30	**61212**	**TE61212**	5.0

Chain Anchor

4	27	**61213**	**TE61213**	6.0
4	30	**61214**	**TE61214**	6.6
3	27	**61215**	**TE61215**	6.4
3	30	**61216**	**TE61216**	6.8

7" Sewn Eye

4	27	**61217**	**TE61217**	3.0
4	30	**61218**	**TE61218**	3.6
3	27	**61219**	**TE61219**	3.4
3	30	**61220**	**TE61220**	3.8

U-Hook

4	27	**61225**	**TE61225**	4.2
4	30	**61226**	**TE61226**	4.8
3	27	**61227**	**TE61227**	4.6
3	30	**61228**	**TE61228**	5.0

*** Non-standard lengths available**

Load Hugger™ Cargo Control

E-TRACK & VAN INTERIOR ASSEMBLIES

ULTIMATE ASSEMBLY STRENGTH	
Cam Buckle	2,500 lbs.
Ratchet Buckle	3,000 lbs.

WORKING LOAD LIMIT	
Cam Buckle	800 lbs.
Ratchet Buckle	1,000 lbs.

STANDARD E-TRACK ASSEMBLIES	Standard Part No.	*Tuff-Edge** Part No.	Wt. (lbs.)
2" X 12' Cam Buckle/Spring E-Track Fittings - Yellow	**60805**	**TE60805**	1.6
2" X 16' Cam Buckle/Spring E-Track Fittings - Gray	**60806**	**TE60806**	1.7
2" X 20' Cam Buckle/Spring E-Track Fittings - Blue	**60807**	**TE60807**	1.8
2" X 12' Ratchet/Spring E-Track Fittings - Yellow	**60808**	**TE60808**	2.0
2" X 16' Ratchet/Spring E-Track Fittings - Gray	**60809**	**TE60809**	2.1
2" X 20' Ratchet/Spring E-Track Fittings - Blue	**60810**	**TE60810**	2.2

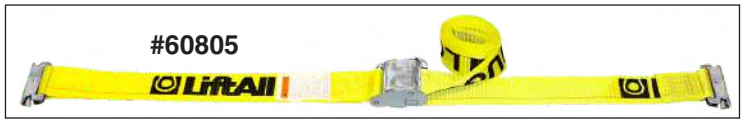
***Tuff-Edge* web is yellow for all lengths.**

- Standard Fixed End is 48"
- Spring-loaded E-Track, 3-piece E-Track, or any of the end fittings listed in Series 5,000 *Load Huggers* may be attached.
- E-Track only works with E-Track fittings.

To order a non-standard interior van restraint assemblies specify:

- Overall length.
- Fixed Length.
- Cam Buckle or Ratchet Buckle.

NOTE: Van interior restraint assemblies are only as strong as the anchor or track to which they are attached.

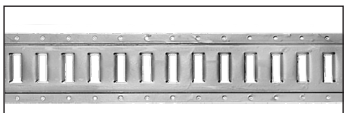



Spring Loaded **E-Track Fitting**


Tie-Off Strap #TOS

Logistic Strap Storage Bag

Part #60820


Horizontal E-Track #60801
12-Ga. Steel Galvanized
10-ft. Sections (17-lbs.)


Vertical E-Track #60802
12-Ga. Steel Galvanized
10-ft. Sections (13-lbs.)

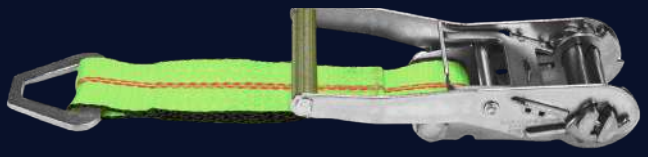
Note: E-Track can be cut into lengths suitable for UPS shipments.

TIEDOWN CHAIN & LOAD BINDERS

Tiedown Chain Grab Hook Each End	WLL (lbs.)	Domestic Part No.	Import Part No.	Weight (lbs.)
5/16" X 20' Welded G-70 Gold Dichromate	**4,700**	**16001**	—	21.2
3/8" X 20' Welded G-43 Self-Colored	**5,400**	**16002**	—	28.1
5/16" X 20' Clevis G-70 Gold Dichromate	**4,700**	**16005**	—	21.1
3/8" X 20' Clevis G-43 Self-Colored	**5,400**	**16006**	—	29.0
3/8" X 20' Clevis G-70 Gold Dichromate	**6,600**	**16006G7**	—	31.1
Load Binders	**WLL (lbs.)**	**Domestic Part No.**	**Import Part No.**	**Weight (lbs.)**
5/16" - 3/8" Lever Style	**6,600**	**16004**	**16004I**	8.0
5/16" - 3/8" Ratchet Style	**6,600**	**16003**	**16003I**	12.0


Tiedown Chain


LOADHUGGER

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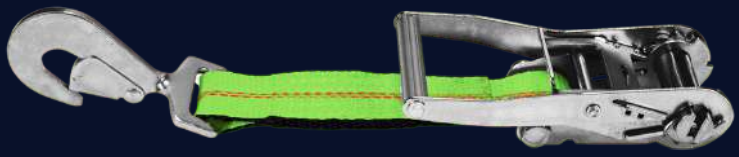
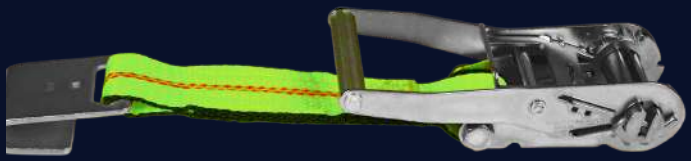



LOADHUGGER
LOADHUGGER



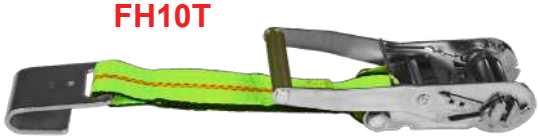
TIE DOWNS & WHEEL STRAPS

Mix or match these 2" components to get exactly the combination you want!

1. Specify the part number for the fixed or adjustable end that you want.
2. For non-standard **fixed end** web length, change the **10** in the part number to desired length in inches.
3. For non-standard **adjustable end** web length, change the number in the part number to desired length (in feet).
4. Part numbers shown are for *Tuff-Edge® HiVis™* webbing. For traditional yellow tie down web, replace the "**T**" at the end of the part number with a "**Y**".

Fixed Ends – 10" Web Length Standard

FH10T

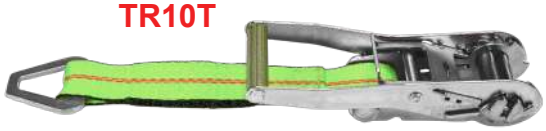


Flat Hook – WLL 3,300-lbs.
Long Wide Handle Ratchet

CG10T

Chain w/ Grab Hook – WLL 3,300-lbs.
Long Wide Handle Ratchet

TR10T

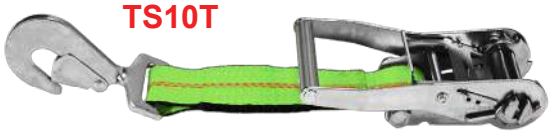


Triangle – WLL 3,300-lbs.
Long Wide Handle Ratchet

CE10

Chain End – WLL 3,300-lbs.
Short Wide Handle Ratchet

TS10T

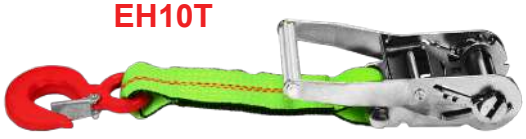


Twisted Snap Hook – WLL 3,300-lbs.
Long Wide Handle Ratchet

UH10T

U-Hook – WLL 1,600-lbs.
Short Wide Handle Ratchet

EH10T



Eye Hook – WLL 3,300-lbs.
Long Wide Handle Ratchet

FS10T

Flat Snap Hook – WLL 2,000-lbs
Short Wide Handle Ratchet

Exclusively manufactured and shipped from our Chicago plant.

TIE DOWNS & WHEEL STRAPS

Adjustable Ends

Flat Hook – WLL 3,300-lbs.

7-ft. Length	AFH7T
25-ft. Length	AFH25T
28-ft. Length	AFH28T

Flat Snap Hook w/ 18" Sliding Sleeve
WLL 2,000 lbs.

** Used on Dynamic® Wheel Lifts **

6-ft. Length	AFSS8T
7-ft. Length	AFSS7T

Wrap Around Strap U-Hook
WLL 1,600-lbs.

Use 7-ft. on *Avenger*® & *Peterson*® Scoops

7-ft. Length	AUH7T
25-ft. Length	AUH25T
28-ft. Length	AUH28T

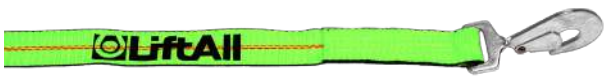
Retainer Strap w/ Flat Snap Hook
& D-Ring w/30" Sliding Sleeve
WLL 2,000-LBS.

** Used on American® Wheel Lifts**

7-ft. Length	ARS7T

Triangle
WLL 3,300-lbs.

25-ft. Length	ATR25T
28-ft. Length	ATR28T



Triangle – WLL 3,300-lbs.

** Use 7-ft. on Weld-Built® Wheel Lifts**

7-ft. Length	ATS7T
25-ft. Length	ATS25T
28-ft. Length	ATS28T

Lasso Strap - O-Ring
WLL: 3,300-lbs.

8-ft. Length	ALO8T
12-ft. Length	ALO12T

Chain w/ Grab Hook
WLL 3,300-lbs.

25-ft. Length	ACG25T
28-ft. Length	ACG28T

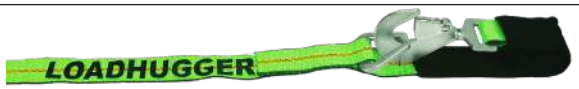
Eye Hook
WLL 3,300-lbs.

15-ft. Length	AEH15T

Exclusively manufactured and shipped from our Chicago plant.

TIE DOWNS & WHEEL STRAPS

Adjustable Ends (continued)



Axle Strap w/ Twisted Snap Hook, Triangle, & 12" Wear Pad Sleeve
WLL 3,300-lbs.

10-ft. Length — AAS10T

Cluster Hook (R, T & Mini J)
WLL: 1,600-lbs.

8-ft. Length — ACH8T

Keyhole Strap
WLL 3,300-lbs.

Used on Chevron® Wheel Lifts

8-ft. Length — AEH15T

Axle Strap
WLL 2,000-LBS.

22-in. Length — AS22T
36-in. Length — AS36T

Axle Strap Sewn-On Wear Pad
WLL 3,300-LBS.

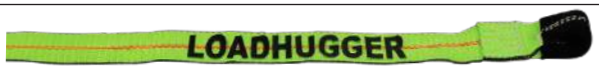
22-in. Length — ASWP22T
36-in. Length — ASWP36T

Flat Snap Hook – WLL 2,000-lbs.

6-ft. Length — AFS6T

Lasso Strap
Plain Eye
WLL: 3,300-lbs.

8-ft. Length — ALE8T



Lasso Strap
Eye w/Cordura Wrap
WLL: 3,300-lbs.

8-ft. Length — ALEI8T

Basket Style Wheel Straps

Basket Strap
Wear Pad & Triangle End
WLL 3,300-lbs.

BSTRT

Basket Strap
Wear Pad & Plain End
WLL 3,300-lbs.

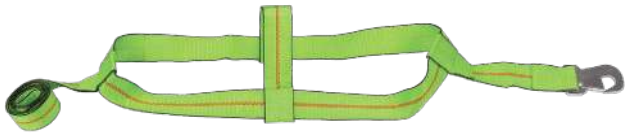
BSPET

Exclusively manufactured and shipped from our Chicago plant.

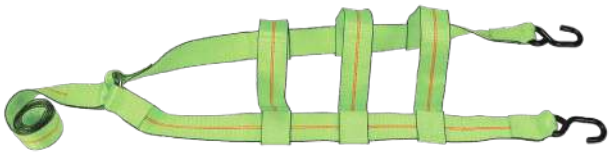
BASKET STYLE WHEEL STRAPS

Combination Strap
2" Web • D-Ring
WLL 1,600-lbs.
Used on all wheel lifts and dollies
BSTT

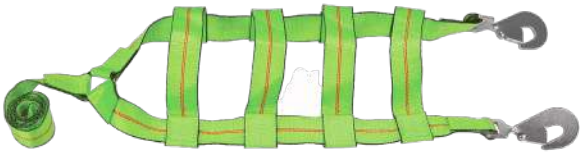
Flat Hook Basket Strap
2" Web • Flat Hook
WLL 1,600-lbs.
Used on *Rover*® brand dollies
BSFT



Snap Hook Basket Strap
2" Web • Snap Hook
WLL 2,000-lbs.
Used on *Hydra-Tech*® wheel lifts
BSST



Open Hook Basket Strap
2" Web • Open Hook
WLL: 1,600-lbs.
Used on *Holmes*® wheel lifts
BSOT



Twisted Snap Hook Basket Strap
2" Web • Twisted Snap Hooks
WLL 1,600-lbs.
Used on older *Holmes*® wheel lifts
BSTST

Cage Strap
1" Web • T-Hooks, 1/4"X26" G30 Chain
WLL 1,500-lbs.
Used on *Century*® wheel lifts
CS1

Cage Strap
2" Web • T-Hooks, 1/4"X26" G30 Chain
WLL 1,600-lbs.
Used on *Chevron*® and *Challenger*® wheel lifts
CS2T

Exclusively manufactured and shipped from our Chicago plant.

WEB V-ASSEMBLIES

Lightweight straps that protect the towed vehicle

Tuff-Edge® HiVis™ webbing is standard • 4,700-lb. WLL

3" Web • Long Shank J-Hooks

Web Length 2-ft. **VWLJ2T**
Web Length 6-ft. **VWLJ6T**

How to order:

1. Specify the part number.
2. If non-standard length is desired, change the number to the length in feet that you want.
3. For traditional yellow web, replace the **"T"** at the end of the part number with a **"Y"**.

3" Web • T and Sports Car J-Hooks

Web Length 2-ft. - **VWTJ2T**
Web Length 3-ft. - **VWTJ3T**

3" Web • Sports Car J-Hooks

Web Length 2-ft. **VWSJ2T**

3" Web • Cluster Hooks R, T & Mini J

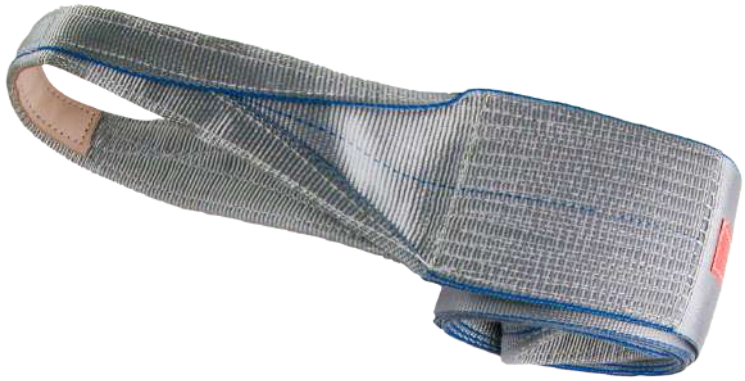
Web Length 3-ft. - **VWCH3T**
Web Length 6-ft. - **VWCH6T**

Axle Strap
2" Web • Twisted Snap Hook, Triangle & 12" Wear Pad in Eyes

Web Length 4-ft. **VWAS4T**
Web Length 6-ft. **VWAS6T**

Exclusively manufactured and shipped from our Chicago plant.

TUFF-EDGE® II VEHICLE RECOVERY STRAP



Tuff-Edge II vehicle recovery straps are made from strong, durable, weather-resistant webbing which will not rot or mildew. The straps feature sewn eyes lined with premium abrasion resistant material, and attach quickly to vehicle frames or towing hooks.

Features and Benefits

- No dangerous hooks or metal parts.
- Elongates 7% at rated capacity to help absorb the energy of sudden loading.
- Polyester material is gentle on painted and plated surfaces.
- Lightweight and flexible, making them easy to use and store.
- Design Factor 5:1; suitable for overhead lifting.
- Special silver treatment makes straps 2X stronger after abrasion.
- Blue polymer coated edge yarns provide 2X better edge cut resistance.
- Leather–lined bearing point of eyes for longer strap life.
- *Tuff-Tag* provides permanent, vital strap information.

1-PLY				
Strap Width (in.)	Vertical WLL (lbs.)	Basket WLL (lbs.)	Standard Lengths (ft.)	Part Number
6	9,600	19,200	16	RS1806TGX16
			20	RS1806TGX20
			26	RS1806TGX26
			30	RS1806TGX30
8	12,800	25,600	16	RS1808TGX16
			20	RS1808TGX20
			26	RS1808TGX26
			30	RS1808TGX30
12	19,200	38,400	16	RS1812TGX16
			20	RS1812TGX20
			26	RS1812TGX26
			30	RS1812TGX30

2-PLY				
Strap Width (in.)	Vertical WLL (lbs.)	Basket WLL (lbs.)	Standard Lengths (ft.)	Part Number
6	16,300	32,600	16	RS2806TGX16
			20	RS2806TGX20
			26	RS2806TGX26
			30	RS2806TGX30
8	19,200	38,400	16	RS2808TGX16
			20	RS2808TGX20
			26	RS2808TGX26
			30	RS2808TGX30
12	26,900	53,800	16	RS2812TGX16
			20	RS2812TGX20
			26	RS2812TGX26
			30	RS2812TGX30

TOW-ALL™ VEHICLE TOW STRAP

Vehicle tow straps aid in removing vehicles stranded in snow, mud, sand and ditches.

Tow-All vehicle tow straps are made from strong, durable, weather-resistant *Tuff-Edge*® III webbing (1" – 4"), which will not rot or mildew. The straps feature sewn eyes lined with premium abrasion resistant material, and attach quickly to vehicle frames or towing hooks.

Features and Benefits

- No dangerous hooks or metal parts.
- Elongates 7% at rated capacity to help absorb the energy of sudden loading.
- Polyester material is gentle on painted and plated surfaces.
- Lightweight and flexible, making them easy to use and store.
- Design Factor 3:1; not suitable for lifting.

Note: *Lift-All* believes tow straps with metal end fittings are dangerous and, therefore, will not put metal hardware on *Tow-All* straps.

Part Number	Web Plies	Web Width	Assembly Breaking Strength* (lbs.)	Towing Capacity[1] (lbs.)
TS1802T	1	2	16,000	5,300
TS2802T	2	2	32,000	10,700
TS1803T	1	3	24,000	8,000
TS2803T	2	3	43,000	14,300
TS1804T	1	4	32,000	10,600
TS2804T	2	4	57,500	19,100
TS1806T[2]	1	6	48,000	16,000
TS2806T[2]	2	6	81,500	27,100

* Assembly breaking strength when new.
[1] Do not exceed towing capacity.
[2] *Tuff-Edge* II webbing.

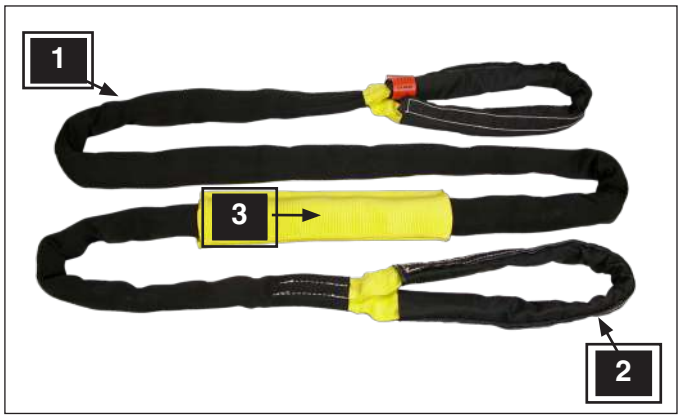
Safe Operating Practices

- Do not use a damaged or defective strap.
- Inspect before each use.
- Do not exceed rated capacity.
- Do not tie knots in strap.
- Do not attach to bumpers.
- Avoid dragging strap on ground.
- The strap is permanently damaged when exposed to temperatures in excess of 200°F. Avoid muffler and hot exhaust systems.
- Stand clear of strap and vehicles when under load.
- Always protect straps from being cut by corners and edges.
- Store in cool, dry and dark location.

TUFLEX® VEHICLE RECOVERY STRAPS

THE HEAVY DUTY RECOVERY STRAPS!

Tuflex straps elongate to 3% and are designed to prevent dangerous recoil.



Our *Tuflex* version of the *Tow-All* strap offers the most rugged synthetic strap on the market. We start with our standard *Tuflex* Roundsling:

1 Add an additional jacket of texturized, abrasion resistant nylon, installed over the body, creating an eye/eye style.

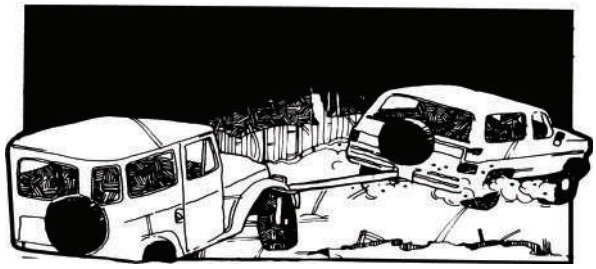
2 The eyes are then covered with ballistic nylon material for additional protection.

3 An 18" long sliding sleeve wear pad provides added protection against load edges.

Inspection Criteria for all *Tow-All* Vehicle Recovery straps:

Remove from service if any of the following are visible:

- Signs of melting, charring or chemical damage.
- Holes, tears, snags, or cuts on the face or edge of webbing.
- Visible signs of damage exposing core yarns.
- Signs of excessive abrasive wear.
- Broken or worn threads in the stitch patterns.
- Any other visible damage.
- Illegible or missing identification tag.
- Knots.



Part Number	Assembly Breaking Strength* (lbs.)	Towing Capacity+ (lbs.)
TSEN90X20 **TSEN90X30**	42,000	14,000
TSEN120X20 **TSEN120X30**	52,500	17,500
TSEN150X20 **TSEN150X30**	66,000	22,000
TSEN180X20 **TSEN180X30**	84,000	28,000
TSEN240X20 **TSEN240X30**	105,900	35,300
TSEN360X20 **TSEN360X30**	154,800	51,600
TSEN600X20 **TSEN600X30**	264,900	88,300
TSEN800X20 **TSEN800X30**	330,000	110,000
TSEN1000X20 **TSEN1000X30**	450,000	150,000

* Assembly breaking strength when new.
\+ Do not exceed towing capacity.
Above ratings reflect a 3:1 design factor.

To use product for lifting applications with a 5:1 design factor, contact *Lift-All* when ordering.

Refer to photographs of damaged *Tuflex* roundslings in the ROUNDSLINGS section of this catalog.

PERMALOC WINCH LINES

Lift-All winch and hoist lines are made using 6X19 IWRC wire core ropes for better resistance to abrasion and crushing. Available with carbon hooks for large throat openings, or alloy hooks for longer life.

- *Permaloc*™ Flemish Eye splice for high strength efficiency.
- Meets OSHA 1910.184 and ASME B30.9.
- Heavy-duty thimble in eye extends useful life.
- Economical custom assemblies.
- No assembly time - ready to install.
- Stainless steel latch keeps hook in proper place.

DOMESTIC

IMPORT

6X19 IWRC STEEL CORE						
			DOMESTIC		IMPORT	
Rope Diameter (In.)	WLL (Tons)	Length (Ft.)	Eye Hook & Latch	Swivel Eye Hook & Latch	Eye Hook & Latch	Swivel Eye Hook & Latch
3/8"	2.4	35	38WX35	38WSX35	38WIX35	38WISX35
		50	38WX50	38WSX50	38WIX50	38WISX50
		75	38WX75	38WSX75	38WIX75	38WISX75
		100	38WX100	38WSX100	38WIX100	38WISX100
		150	38WX150	38WSX150	38WIX150	38WISX150
7/16"	3.2	50	716WX50	716WSX50	716WIX50	716WISX50
		75	716WX75	716WSX75	716WIX75	716WISX75
		100	716WX100	716WSX100	716WIX100	716WISX100
		150	716WX150	716WSX150	716WIX150	716WISX150
1/2"	4.2	75	12WX75	12WSX75	12WIX75	12WISX75
		100	12WX100	12WSX100	12WIX100	12WISX100
		150	12WX150	12WSX150	12WIX150	12WISX150

PERMALOC WINCH LINES

6X19 FIBER CORE						
			DOMESTIC		IMPORT	
Rope Diameter (In.)	WLL (Tons)	Length (Ft.)	Eye Hook & Latch	Swivel Eye Hook & Latch	Eye Hook & Latch	Swivel Eye Hook & Latch
3/8"	1.88	35	38WFX35	38WFSX35	38WFIX35	38WFISX35
		50	38WFX50	38WFSX50	38WFIX50	38WFISX50
		75	38WFX75	38WFSX75	38WFIX75	38WFISX75
		100	38WFX100	38WFSX100	38WFIX100	38WFISX100
		150	38WFX150	38WFSX150	38WFIX150	38WFISX150
7/16"	2.5	50	–	–	716WFIX50	716WFISX50
		75	–	–	716WFIX75	716WFISX75
		100	–	–	716WFIX100	716WFISX100
		150	–	–	716WFIX150	716WFISX150

WINCH LINE EXTENSIONS

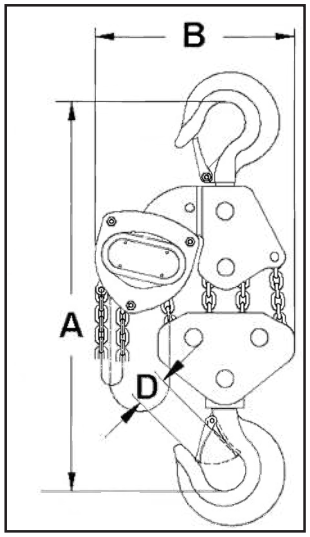
- All winch lines extensions are U.S. made using either domestic or imported rope and fittings.
- Eyes are made using the flemish eye technique and include a thimble for eye protection.
- Latches are included with all hooks.

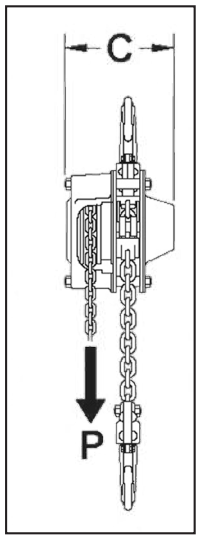
6X19 IWRC STEEL CORE				
Rope Diameter (in.)	WLL (tons)	Length (ft.)	Domestic	Import
3/8"	2.4	35	38WEX35	38WEIX35
		50	38WEX50	38WEIX50
7/16"	3.2	50	716WEX50	716WEIX50
1/2"	4.2	50	12WEX50	12WEIX50

www.lift-all.com
LiftAll
1 1/2 t
3,300 lb (WLL)
Model: CB015
Read the manual before operating.
Do Not lift people or loads over people.
LiftAll

MANUAL CHAIN HOIST (MCH)

Lift-All hoists are perfect for a low-headroom lift. These economical, durable, and lightweight hoists are excellent options for a variety of lifting applications. The fully enclosed gears are protected from contamination. Powder-coated and plated finishes on exposed components protect the hoists from corrosion. All gears and shafts run on caged roller bearings for smooth operation and long life (excludes mini pullers). The self-adjusting Weston style mechanical load brake never requires adjustment. The top hook mounting aids in rigging and helps ensure straight line loading between hooks.





Part Number	Lift	Metric Tons
MCH005X10	10’	.5
MCH005X20	20’	
MCH005X30	30’	
MCH010X10	10’	1
MCH010X20	20’	
MCH010X30	30’	
MCH015X10	10’	1.5
MCH015X20	20’	
MCH015X30	30’	
MCH020X10	10’	2
MCH020X20	20’	
MCH020X30	30’	
MCH030X10	10’	3
MCH030X20	20’	
MCH030X30	30’	
MCH050X10	10’	5
MCH050X20	20’	
MCH050X30	30’	
MCH100X10	10’	10
MCH100X20	20’	
MCH100X30	30’	

Part Number	Load Chain lbs./ft.	Hand Chain lbs./ft.	Dimensions (in./lbs.)					Weight 10' Lift
			A min.	B	C	D	P	
MCH005X10	0.54	0.48	10.6	5.4	5.4	0.94	49	22
MCH005X20								
MCH005X30								
MCH010X10	0.54	0.48	12.5	6.4	5.8	0.94	72	26
MCH010X20								
MCH010X30								
MCH015X10	0.92	0.48	15.7	7.2	6.7	1.14	81	42
MCH015X20								
MCH015X30								
MCH020X10	0.92	0.48	16.3	7.6	6.7	1.14	81	44
MCH020X20								
MCH020X30								
MCH030X10	1.84	0.48	18.3	8.7	6.7	1.42	87	59
MCH030X20								
MCH030X30								
MCH050X10	2.96	0.48	24.3	11.3	7.5	1.81	98	101
MCH050X20								
MCH050X30								
MCH100X10	5.92	0.48	31.4	15.1	7.5	1.97	98	183
MCH100X20								
MCH100X30								

Meets ASME B30, OSHA 1915.114, and NASA-STD-8719.9

* **⚠ WARNING**

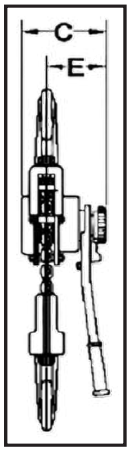
- Do not exceed working load limit (load rating capacity).
- Do not lift loads over people.
- Do not use to lift people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.

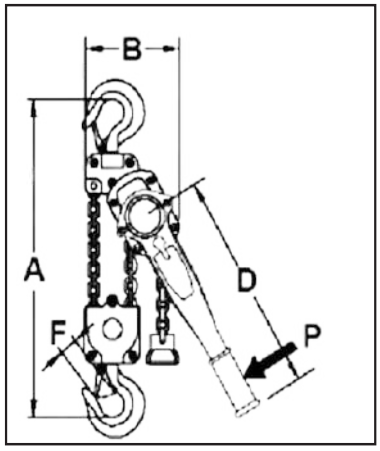
LEVER CHAIN HOIST (LCH)

Lever Chain Hoists are highly versatile tools that can be used to pull, lift, drag or stretch. All Lever Chain Hoists use alloy steel chain for long life, and forged steel swivel hooks with latches for safety.

Part Number	Lift	WLL (Metric Ton)
LCH008X5	5’	3/4
LCH008X10	10’	
LCH008X20	20’	
LCH015X5	5’	1.5
LCH015X10	10’	
LCH015X20	20’	
LCH030X5	5’	3
LCH030X10	10’	
LCH030X20	20’	
LCH060X5	5’	6
LCH060X10	10’	
LCH060X20	20’	

- Easy one hand operation and set up.
- Operates in any orientation.
- Non-slip rubber grip lever and 360° rotation require minimal space for operation with 20 to 30% less pull force than other brands.
- Powder-coated and plated finishes resist corrosion.
- Fully enclosed gearing to protect from contamination.
- The automatic Weston style mechanical load brake will react to the inertia of a descending load.
- Drop forged alloy hooks are designed to stretch before chain failure when overloaded and are equipped with cast steel safety latches.
- The top hook mounting articulates to aid in rigging and helps ensure straight line loading between hooks.





Part Number	Dimensions (inches)						P (lbs.)	Weight per foot (lbs.)	Weight (lbs.) A=5-ft.
	A	B	C	D	E	F			
LCH008	12.6	5.3	5.8	11.4	3.5	0.94	33	0.54	17
LCH015	15.0	6.4	6.9	16.5	4.0	1.14	66	0.92	26
LCH030	18.9	8.3	7.7	16.5	4.3	1.42	122	1.48	46
LCH060	24.4	10.0	7.7	16.5	4.3	1.81	264	2.96	70

Meets ASME B30, OSHA 1915.114, and NASA-STD-8719.9

* **⚠ WARNING**

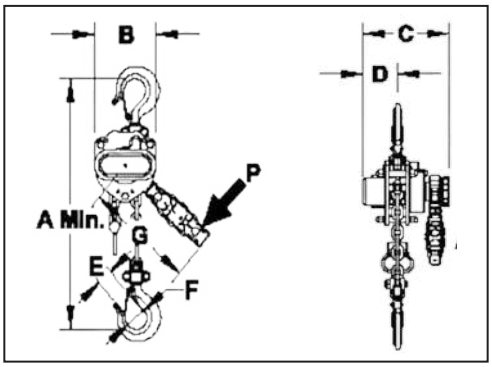
- Do not exceed working load limit (load rating capacity).
- Do not lift loads over people.
- Do not use to lift people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.

MINI LEVER HOISTS (MLH)

Mini Lever Hoists can lift up to 1,100 lbs., yet are small enough to fit in your toolbox! These mini lever hoists are the most compact on the market. They perform just like the larger models, plus come with these great features:

Part Number	Lift (ft.)	WLL (lbs.)
MLH003X5	5	500
MLH003X10	10	
MLH005X5	5	1100
MLH005X10	10	

- Easy to transport, install, and store.
- Low headroom design for use in tight spaces.
- Rubber hand grip for better comfort and security.
- Lightweight and durable all-steel construction with chrome exterior finish to resist corrosion.
- Sleeve bearings used to maximize serviceability and provide good efficiency.
- Self-adjusting pawl and disc type mechanical load brake ensure positive load control.
- The brake will stop a load even if the operator leaves the unit in free chain mode and in neutral.
- Your choice of either 5-ft. or 10-ft. lifts.
- Meets ASME B30, OSHA 1915.114, and NASA-STD-8719.9



Part Number	Lift (ft.)	Dimensions (inches)							P Max (lbs.)	Weight (lbs.)
		A	B	C	D	E	F	G		
MLH003X5	5	8.5	3.0	4.6	1.6	0.6	1.0	6.2	28	4.4
MLH003X10	10									
MLH005X5	5	10.0	3.5	5.3	2.0	0.8	1.3	7.1	40	7.7
MLH005X10	10									

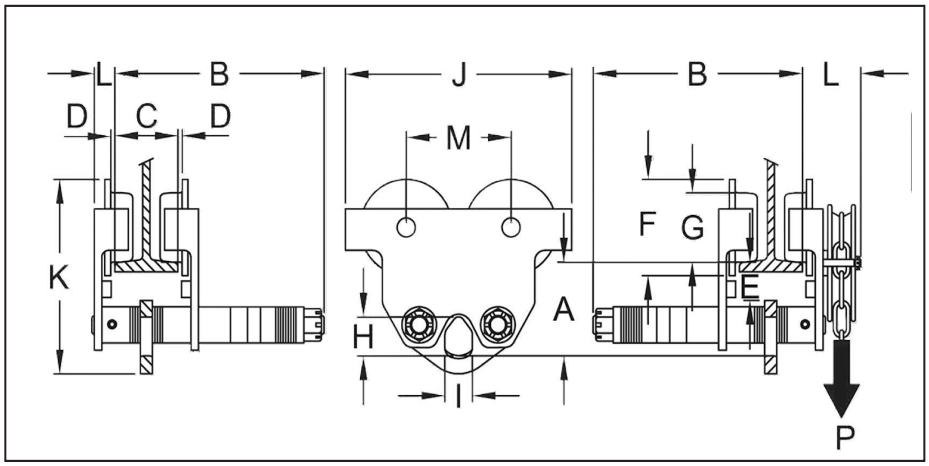
* **⚠ WARNING**

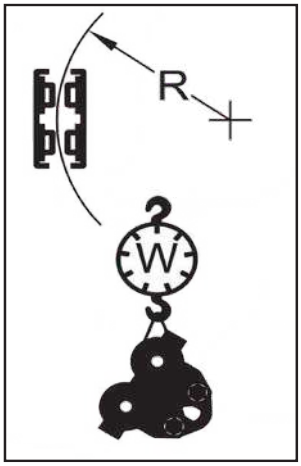
- Do not exceed working load limit (load rating capacity).
- Do not lift loads over people.
- Do not use to lift people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.

PUSH TROLLEY

- 1/2t to 5t installation and adjustment by rotating the threaded hanger shaft.
- 10t to 30t is from one side, trolley hanger shafts are fix mounted to the opposite side plate.
- Trolleys up to 5t have a 5:1 design factor and can be used for manual or powered hoist.
- The 10t has a 4:1 design factor and must be derated for powered hoist.
- Machined cast iron wheels with universal tread design to fit flat or tapered beam flanges.
- Low headroom design with precision sealed "lubed for life" bearings assure smooth operation.
- Durable all steel construction with standard safety lugs.
- Geared trolley hand chain drop is standard with a 20' drop.
- Meets ASME/ANSI B30.16, OSHA, NASA-STD-8719.9, EU Directives: 2006/42/EC.
- ATEX rated Ⓔx II 3 GD c IIB 54º C X for limited use in Hazardous Environments.

Model	WLL (Metric Tons)	A	B	C Standard (in.)	Dimensions (in.)											R MIN (in,)	Weight (lbs.)
					D	E	F	G	H	I	J	K	L	M	P		
PT005	1/2	3.3	11.5	1.97–8.66	0–0.12	1.5	2.3	3.4	1.2	0.9	8.9	6.8	—	4	—	36	18
PT010	1	3.7	11.8	2.28–8.66	0–0.12	1.7	2.4	3.7	1.4	0.9	9.9	7.4	—	4.7	—	40	24
PT020	2	4.4	4.4	2.60–8.66	0–0.12	1.6	3.2	4.6	1.9	10	11.8	8.9	—	5.5	—	48	40
PT030	3	5.8	5.8	2.91–8.66	0–0.12	2.5	3.9	3.5	2.3	13	14.2	11.4	—	6.3	—	52	69
PT050	5	6.3	13.0	3.54–8.66	6.30–12.01	0–0.12	2.2	4.3	5.9	2.8	1.5	15.4	12.3	—	6.7	56	94
PT100	10	7.5	15.5	4.9–12.01	0.08–0.13	1.8	7.0	5.4	4.4	2.8	18.1	15.5	1.8	7.9	—	79	198

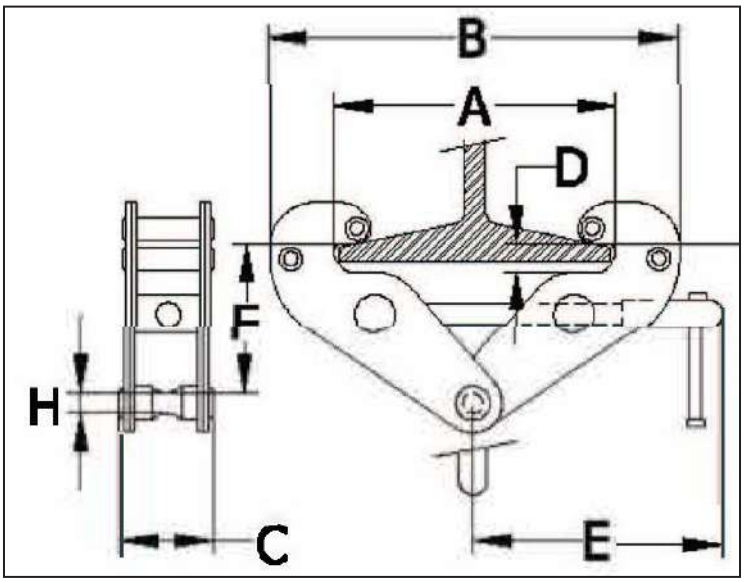




BEAM CLAMP

- The easy way to install a fixed hoist mount or rigging point.
- Simple installation by hand, no tools required.
- Compact and portable low headroom design.
- Meets OSHA, ASME B30, NASA-STD-8719.9 and EU Directives: 2006/42/EC.

Model	WLL (Metric Tons)	WLL Capacity from Vertical				Dimensions (in.)							Weight (lbs,)
		0°	15°	30°	45°	A Adjustment	B Max	C	D	E	F Max	H	
BC010	1	2,200	0	0	0	3.1 – 9.6	14.6	3.7	0.75	7.8	5.6	0.8	7.7
BC020	2	4,400	0	0	0	3.1 – 9.6	14.6	4.0	0.75	7.8	5.6	0.8	9.9
BC030	3	6,600	0	0	0	3.5 – 13.0	19.7	5.2	1.12	10.4	7.8	0.9	20.9
BC050	5	11,000	0	0	0	3.5 – 13.0	19.7	5.6	1.41	10.4	8.2	0.9	24.3
BC100	10	22,000	0	0	0	3.5 – 13.0	20.6	7.1	1.50	11.2	8.4	1.5	35.2



HOIST RINGS

Hoist Rings Make Lifting Easy

Hoist rings provide the safest method of attaching pickup points to loads. Eye bolts tend to deform and fracture when lifted at an angle. Hoist rings are designed to eliminate this weakness.

Features and Benefits

Promotes Safety

- Designed for lifting at angles; safer than rigid eye bolts.
- Magnetic particle or X-Ray inspection of components assures the highest quality.
- Fixed lift points prevent load and sling from slipping and ensure proper rigging methods.
- Every hoist ring is stamped with rated capacity and proof-tested.

Saves Money

- Hoist rings minimize contact between sling and load, reducing potential damage.
- Alloy steel material increases strength and reduces wear.
- Black oxide finish resists corrosion.
- Highest industry quality for durability and long life.

Saves Time

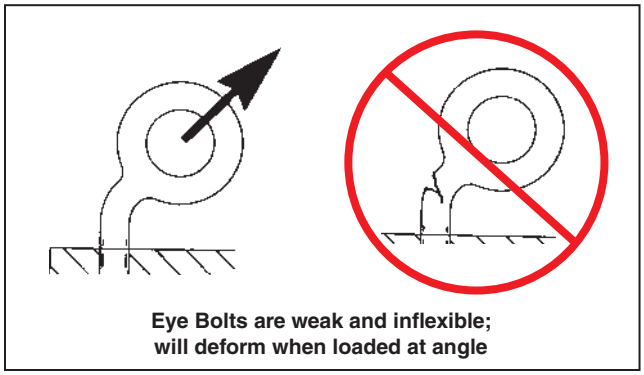
- Easy hook-up and disconnect of the load.
- Full swivel and pivot action of side pull hoist hings allows turning and flipping without unhooking.
- Easy to inspect.

Safe Operating Practices

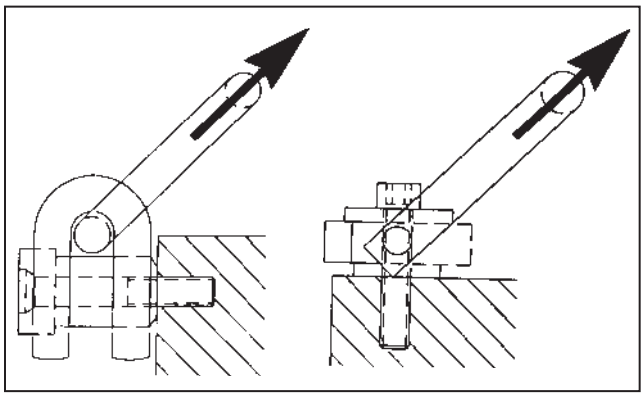
Read and understand instruction sheet supplied with each hoist ring prior to use.

- Do not use a damaged or defective hoist ring.
- Inspect before each use.
- Do not overload.
- Full thread length must be engaged and torqued according to tables.
- Periodic re-torquing may be required.

Hoist ring ratings apply to use at any angle. Be sure that sling tension does not exceed the rating of the hoist ring. Refer to the Effect of Angle chart in the HELP section of this catalog.



Eye Bolts are weak and inflexible; will deform when loaded at angle



Side Pull Hoist Ring

Strong and flexible, Side Pull Hoist Rings allow for full 360° swiveling and pivoting.

Center Pull Hoist Ring

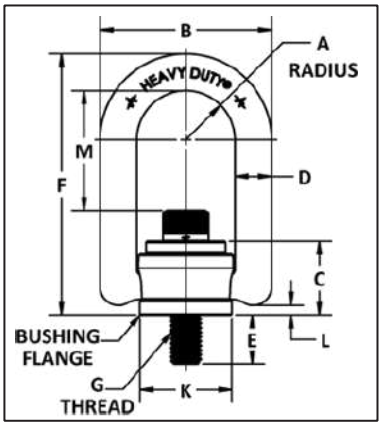
Center Pull Hoist Rings are the industry standard and are designed for top of load mounting.

HOIST RINGS

Forged Center-Pull Hoist Rings

Forged hoist rings are ideal for OEM and industrial use.

- Forged high strength 4140 alloy steel.
- Swivels 360° and pivots 180° under load.
- Meets manufacturing and design requirements of ASME-B30.26 and MIL-STD 209.
- Magnetic particle inspected per ASTM 1444.
- Each hoist ring is individually serialized.
- Black oxide finish for corrosion resistance.
- Design Factor 5:1.



Center-Pull Hoist Rings (Dimensions in inches)

Part Number	Load Capacity* (lbs.)	G Thread	A	B	C	D	E (+/-.12)	F	K	L	M	Torque** (ft. lbs.)	Weight (lbs.)
23906	800	5/16-18	0.65	2.29	0.96	0.44	0.56	3.23	1.25	0.15	1.51	7	0.52
23907	800	5/16-18	0.65	2.29	0.96	0.44	1.06	3.23	1.25	0.15	1.51	7	0.54
23908	1,000	3/8-16	0.65	2.29	0.96	0.44	0.56	3.23	1.25	0.15	1.45	12	0.56
23909	1,000	3/8-16	0.65	2.29	0.96	0.44	1.06	3.23	1.25	0.15	1.45	12	0.58
23910	2,500	1/2-13	1.00	3.50	1.50	0.75	0.75	5.31	1.89	0.17	2.56	28	1.71
23911	2,500	1/2-13	1.00	3.50	1.50	0.75	1.00	5.31	1.89	0.17	2.56	28	1.72
23914	4,000	5/8-11	1.00	3.50	1.50	0.75	1.00	5.31	1.89	0.17	2.44	60	1.78
23915	4,000	5/8-11	1.00	3.50	1.50	0.75	1.25	5.31	1.89	0.17	2.44	60	1.88
23917	5,000	3/4-10	1.00	3.50	1.50	0.75	1.00	5.31	1.89	0.17	2.31	100	1.89
23918	5,000	3/4-10	1.00	3.50	1.50	0.75	1.50	5.31	1.89	0.17	2.31	100	2.02
23926	10,000	1-8	1.50	5.10	2.05	1.00	1.45	7.37	2.81	0.18	3.20	230	7.57
23927	10,000	1-8	1.50	5.10	2.05	1.00	2.20	7.37	2.81	0.18	3.20	230	7.81
23929	15,000	1 1/4-7	2.00	6.75	2.87	1.25	1.88	9.22	3.88	0.18	3.74	470	15.7
23930	15,000	1 1/4-7	2.00	6.75	2.87	1.25	2.63	9.22	3.88	0.18	3.74	470	16.0
23933	24,000	1 1/2-6	2.00	6.75	2.87	1.25	2.63	9.22	3.88	0.32	3.49	800	18.1
23935	30,000	2-4 1/2	2.00	6.75	2.87	1.25	2.96	9.22	3.88	0.32	3.49	1100	22.9

Metric Center-Pull Hoist Rings (Dimensions in millimeters)

Part Number	Load Capacity* (kgs.)	G Thread	A	B	C	D	E (+/- .12)	F	K	L	M	Torque** (Nm)	Weight (kg.)
23956	400	M8 x 1.25	16.5	58.2	24.4	11.1	16	82.0	31.8	4.0	38.5	9.5	0.24
23958	450	M10 x 1.50	16.5	58.2	24.4	11.1	16	82.0	31.8	4.0	36.5	16	0.25
23962	1,050	M12 x 1.75	25.4	88.9	38.1	19.1	25	134.9	48.0	4.4	65.0	37	0.78
23965	1,900	M16 x 2.0	25.4	88.9	38.1	19.1	25	134.9	48.0	4.4	62.0	80	0.81
23968	2,200	M20 x 2.5	25.4	88.9	38.1	19.1	25	134.6	48.0	4.4	58.7	135	0.86
23974	4,200	M24 x 3.0	35.6	129.5	52.1	25.4	28	187.2	71.4	4.6	85.7	311	3.29
23975	4,200	M24 x 3.0	35.6	129.5	52.1	25.4	38	234.2	71.4	4.6	85.7	311	3.30
23979	7,000	M30 x 3.5	50.8	171.5	72.9	31.8	67	234.2	98.5	8.2	95.0	637.2	7.26
23982	11,000	M36 x 4.0	50.8	171.5	72.9	31.8	67	234.2	98.5	8.2	88.6	1085.5	8.21
23985	12,500	M42 x 4.5	50.8	171.5	72.9	31.8	80	234.2	98.5	8.2	88.6	1085.5	10.14
23986	13,500	M48 x 5.0	50.8	171.5	72.9	31.8	80	234.2	98.5	8.2	88.6	1085.5	10.59

All dimensions approximate. Variations do not affect use or design factor.

** It is recommended that these torques be used when installing hoist rings.

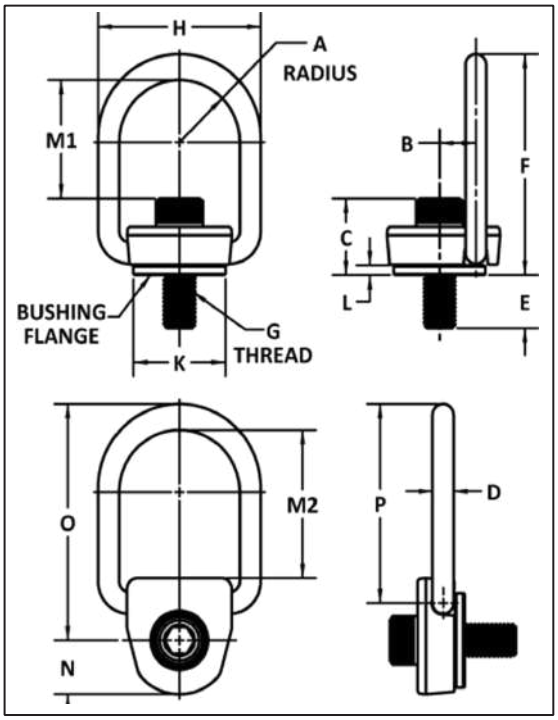
* **⚠ WARNING** Do not exceed rated capacities. Be sure that sling tension does not exceed hoist ring capacity. Follow instructions for Effect of Angle in HELP section of this catalog.

HOIST RINGS

Side-Pull Hoist Rings

A versatile style of hoist ring well suited for turning and flipping loads, as well as for top lifts. Extensively used in automotive stamping plants and injection molding operations for die changing.

- Re-designed load ring is more suitable for use with web slings.
- Self-aligns in the direction of the load.
- Rotates 360° under load.
- Forged high strength 4140 alloy steel.
- Designed for loading 90° from bolt axis.
- Meets manufacturing and design requirements of ASME-B30.26 and MIL-STD 209.
- Magnetic particle inspected per ASTM 1444.
- Each hoist ring is individually serialized.
- Black Oxide finish for corrosion resistance.
- Design Factor 5:1.



Side-Pull Hoist Rings (Dimensions in inches)

Part Number	Load Capacity (lbs.)	G Thread	A	B	C	D	E (+/-.12)	F	H	K	L	M1	M2	N	O	P	Torque** (ft-lbs)	Weight (lbs.)
10253	800	5/16 - 18	1.44	0.87	1.33	0.5	0.48	5.12	3.88	2.19	0.23	3.18	3.43	1.25	5.48	4.61	7	2.05
10254	1,000	3/8 - 16	1.44	0.87	1.40	0.5	0.48	5.12	3.88	2.19	0.23	3.12	3.43	1.25	5.48	4.61	12	2.12
10255	2,500	1/2 - 13	1.44	0.87	1.52	0.5	0.98	5.12	3.88	2.19	0.23	2.99	3.43	1.25	5.48	4.61	28	2.12
10256	4,000	5/8 - 11	1.44	0.87	1.65	0.5	0.98	5.12	3.88	2.19	0.23	2.87	3.43	1.25	5.48	4.61	60	2.22
10257	5,000	3/4 - 10	1.44	0.87	1.77	0.5	1.23	5.12	3.88	2.19	0.23	2.74	3.43	1.25	5.48	4.61	100	2.34
10258	10,000	1 - 8	1.75	1.25	2.47	.75	1.53	6.88	5.00	3.13	0.31	3.51	4.34	1.63	7.40	6.15	230	6.64

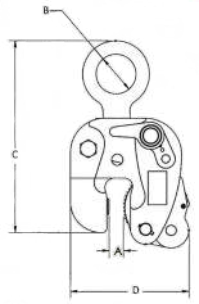
Metric Side-Pull Hoist Rings (Dimensions in millimeters)

Part Number	Load Capacity (kg.)	G Thread	A	B	C	D	E (+/-.3.0)	F	H	K	L	M1	M2	N	O	P	Torque** (Nm)	Weight (kg.)
10262	400	M8 x 1.25	37	22	34	13	14	121	98	56	6	74	81	32	130	117	9.5	0.93
10263	450	M10 x 1.50	37	22	36	13	24	130	99	56	6	79	87	32	139	117	16	0.96
10264	1,050	M12 x 1.75	37	22	38	13	39	130	99	56	6	77	87	32	139	117	37	0.96
10265	1,900	M16 x 2.00	37	22	42	13	39	460	99	56	6	73	87	32	139	117	80	1.01
10266	2,200	M20 x 2.50	37	22	46	13	39	130	99	56	6	69	87	32	139	117	135	1.07
10267	4,200	M24 x 3.00	22	32	61	19	43	175	127	79	8	90	110	41	188	156	311	2.73

** It is recommended that these torques be used when installing hoist rings.

* **⚠ WARNING** Do not exceed rated capacities. Be sure that sling tension does not exceed hoist ring capacity. Follow Instructions for Effect of Angle chart in HELP section of this catalog.

MODELS LA AND LPA



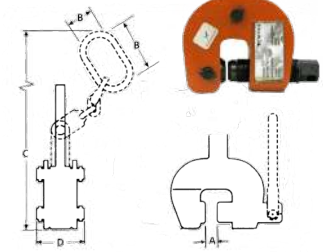
LA: Vertical +180 Degree Turn

LPA: Vertical +180 Degree Turn + Side Pull

- Lightweight ergonomic design.
- Push button auxiliary lock allows 180 degree turn.
- Lock open / lock closed feature facilitates attachment to and removal from plate.
- LPA has pivoting lifting eye, allowing side loading.

Vertical Capacity (tons)	Part Number	Plate Thickness (in.) A	Lifting Eye (in.) B	Max Height (in.) C	Max Width (in.) D	Weight (lbs.)	Clamp Orientation
1/2	LA-00.50-A	0 – 5/8	1.13	8.69	4.25	5	Vertical + 180° turn
1	LA-01.00-A	0 – 3/4	1.13	8.69	4.38	6	Vertical + 180° turn
2	LA-02.00-A	0 – 1	2.38	12.50	7.06	17	Vertical + 180° turn
3	LA-03.00-A	0 – 1	3.38	17.00	8.50	32	Vertical + 180° turn
1/2	LPA-00.50-A	0 – 5/8	1.13	8.69	4.25	5	Vertical + 180° + side pull
1	LPA-01-00-A	0 – 3/4	1.13	8.69	4.38	6	Vertical + 180° + side pull
2	LPA-02.00-A	0 – 1	1.88	12.50	7.06	17	Vertical + 180° + side pull
3	LPA-03.00-A	0 – 1	3.63	17.00	8.50	32	Vertical + 180° + side pull

MODEL SCPA

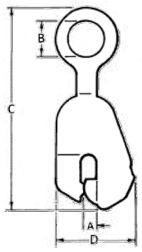


Vertical + 180 Degree turn + Side Pull

- Can be used in rolling and forming.
- Spring loaded cam.
- Can be used for horizontal lifts (use in pairs or sets of pairs).

Vertical Capacity (tons)	Part Number	Plate Thickness A	Lifting Eye B	Max Height C	Max Width D	Weight	Clamp Orientation
1/2	SCPA–00.50A	0 – 3/4	1.8 X 1.8	12.19	6.63	8	Vertical + 180° + side pull
1-1/2	SCPA–01.50A	0 – 1-1/4	2.0 X 2.0	14.19	8.44	15	Vertical + 180° + side pull
3	SCPA–03.00A	0 – 2	3.0X 6.0	21.38	10.19	24	Vertical + 180° + side pull
6	SCPA–06.00A	0 – 2-1/2	3.5 X 7.0	27.75	14.38	57	Vertical + 180° + side pull

MODEL FR



Vertical Only

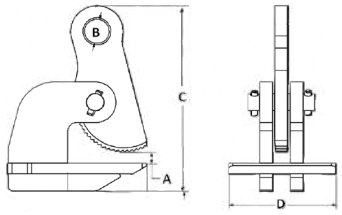
- Most popular clamp.
- Small and easy to handle.
- Serrated gripping cams.
- Lock closed feature.

Vertical Capacity (tons)	Part Number	Plate Thickness (in.) A	Lifting Eye (in.) B	Max Height (in.) C	Max Width (in.) D	Weight (lbs.)	Clamp Orientation
1/2	FR-00.50-A	0 – 3/4	2.38	11.25	4.63	8	Vertical only
1	FR-01.00-A	0 – 3/4	2.63	13.75	5.88	14	Vertical only
2	FR-02.00-A	0 – 1	3.63	16.38	6.75	23	Vertical only
3	FR-03.00-A	0 – 1-1/4	3.63	18.38	7.63	30	Vertical only

MODEL LHC

Horizontal

- Use in pairs, or tripod arrangement.
- Serrated gripping cams.
- Available with smooth non-marring cams.

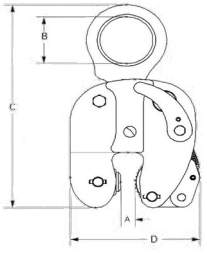


Vertical Capacity Each (tons)	Part Number	Plate Thickness A	Lifting Eye B	Body Height C	Max Width D	Weight	Clamp Orientation
1/4	**LHC–00.2**	0 – 1	1.00	5.38	2.25	3	Horizontal (use in pairs)
1/2	**LHC–00.5**	0 – 2	1.38	9.88	4.88	14	Horizontal (use in pairs)
3/4	**LHC–00.7**	0 – 2	1.41	10.00	5.38	19	Horizontal (use in pairs)
1-1/2	**LHC–01.5**	0 – 2	1.41	10.25	6.13	26	Horizontal (use in pairs)
3	**LHC–03.0**	0 – 2	1.41	10.88	6.13	24	Horizontal (use in pairs)
4	**LHC–04.0**	0 – 3	1.41	14.50	6.50	48	Horizontal (use in pairs)

MODELS J AND JP

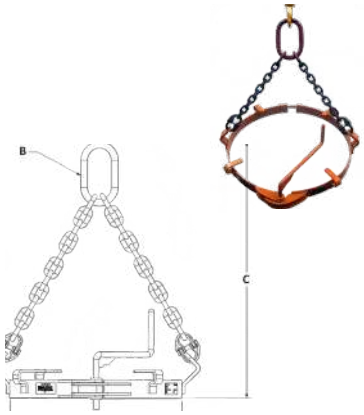
J: Vertical + 90 Degree Turn
JP: Vertical + 90 Degree Turn + Side Pull

- Lock open / lock closed feature facilitates attachment to and removal from plate.
- JP has pivoting lifting eye, allowing side loading.
- Turn plate through 90 degree arc.



Vertical Capacity (tons)	Part Number	Plate Thickness (in.) A	Lifting Eye (in.) B	Max Height (in.) C	Max Width (in.) D	Weight (lbs.)	Clamp Orientation
1/2	**J-00.50-A**	0 – 5/8	2.38	12.00	5.63	10	Vertical + 90° turn
1	**J-01.00-A**	0 – 3/4	2.63	13.75	7.00	15	Vertical + 90° turn
2	**J-02.00-A**	0 – 1	3.50	17.38	8.75	36	Vertical + 90° turn
4	**J-04.00-A**	3/16 – 1-1/4	3.50	20.13	9.25	42	Vertical + 90° turn
1/2	**JP-00.50-A**	0 – 5/8	2.38	12.00	5.63	12	Vertical + 90° + side pull
1	**JP-01.00-A**	0 – 3/4	2.63	13.75	7.00	20	Vertical + 90° + side pull
2	**JP-02.00-A**	0 – 1	3.50	17.38	8.75	40	Vertical + 90° + side pull
4	**JP-04.00-A**	3/16 - 1-1/4	3.50	20.13	9.25	50	Vertical + 90° + side pull

MODEL 300-S DRUM LIFTER



Vertical only

- Secure locking device.
- Easy handling of one drum.
- Vertical lift and transport.

Vertical Capacity (tons)	Part Number	Drum Diameter	Lifting Eye B	Max Height C	Max Width D	Weight	Clamp Orientation
3000	**300S–01.50–A**	22.50	3 X 6	25	22.50	25	Vertical only

Quality Engineered Products

These products have been engineered and produced to the highest quality standards and meet or exceed applicable U.S. government standards including OSHA, ASME B30.20 and B30.9. Proof-testing with certification is available upon request for a nominal charge. Custom devices can be designed to meet your lifting application needs (see end of Lifting Devices section).

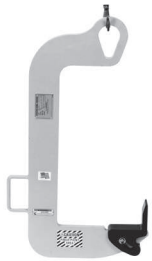
Product Overview

Lifting Beams

Allow multiple pick points for balance and support. The top rigging adds stability to the lift. Available in nine standard styles.

Gantry Cranes

These portable cranes allow for the pick-up and transport of a load wherever you have a smooth and level floor. Available in either steel or aluminum and fixed or adjustable height.



Coil Lifters

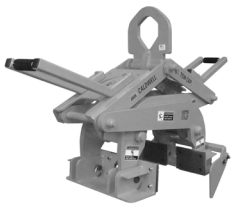
Use to lift, manipulate and reposition coils. Requires minimum aisle space equal to lifter arm length. Available in two standard styles.

Forklift Accessories

Three styles of booms and two hook devices provide added lifting capabilities to your forklift trucks.

Beam/Girder Clamps

For use in lifting and positioning structural beams. Two styles may also be hung from load bearing beams to suspend hoists or other lifting devices.



Barrier Grabs

Scissor-style grab is the easy way to lift and move concrete road barriers. Auto-latch for hands-off operation.

Pipe Grab

For lifting and positioning of steel, iron and concrete pipes.

Manhole Sleeve Lifter

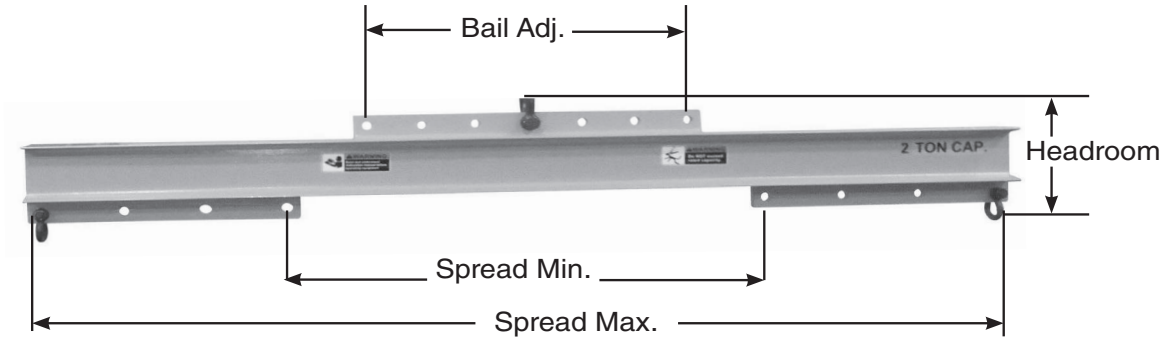
The quick and easy way to place cast manhole sleeves. 2-Leg and 3-Leg configurations available.

Battery Beams provide a non-conductive lifting method for industrial batteries.

Lifting Device Return Policy

- Items to be returned **MUST BE UNUSED** and in like-new condition.
- Contact Lift-All's customer service department to obtain an RMA number; no returns will be accepted without it.
- The customer must prepay freight to the designated location.
- Request for return MUST be made within 30-days of the original shipment date (not receipt date).
- A restocking fee of 25% shall be charged for all authorized returns.
- Credit will be issued **after** receipt, inspection, and acceptance of the return.
- Custom (non-standard) items or modified items are non-returnable and non-refundable.

ADJUSTABLE SPREADER/LIFTING BEAM (ASLB16)

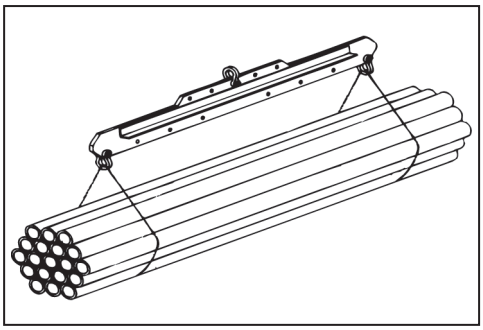


Features

- Use for 2, 3, or 4-point lifting, or as a spreader beam (optional top rigging).
- Adjustable lifting points.
- Handles both wide and unbalanced loads.
- Low headroom capability.
- Shackles included.
- 6" spread adjustments.
- 4" bail adjustments.

Options

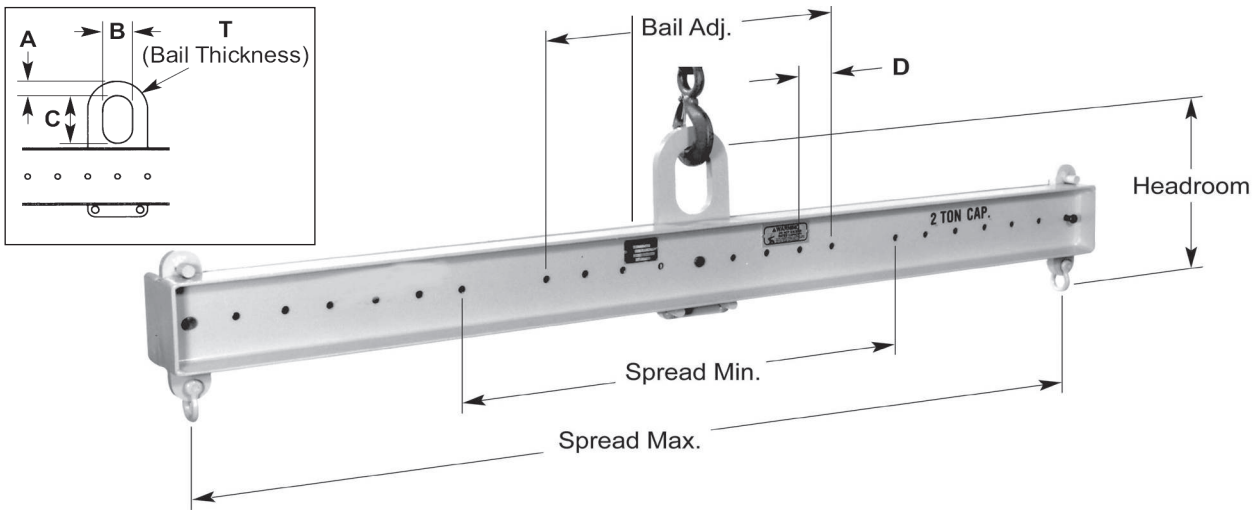
- Pair of swivel hooks*.
- Top chain rigging available.



Rated Capacity (tons)	Part Number*	Spread (ft.)		Bail Adjustment (in.)	Bolt Style Anchor Shackles (tons)		Headroom (in.)	Weight (lbs.)
		Max.	Min.		Top	Bottom		
1/4	ASLB.5X4	4	1	16	1.50	1.50	7.13	40
1/2	ASLB1X4	4	1	16	1.50	1.50	7.13	40
1/2	ASLB1X6	6	3	24	1.50	1.50	10.00	100
1/2	ASLB1X8	8	4	32	1.50	1.50	10.00	135
1/2	ASLB1X10	10	5	40	1.50	1.50	10.00	145
1	ASLB2X6	6	3	24	1.50	1.50	10.00	100
1	ASLB2X8	8	4	32	1.50	1.50	11.00	140
1	ASLB2X10	10	5	40	1.50	1.50	11.00	175
2	ASLB4X6	6	3	24	3.25	2.00	12.50	130
2	ASLB4X8	8	4	32	3.25	2.00	13.50	200
2	ASLB4X10	10	5	40	3.25	2.00	14.50	280
4	ASLB8X8	8	4	32	4.75	4.75	16.75	290
4	ASLB8X10	10	5	40	4.75	4.75	18.75	420
4	ASLB8X12	12	6	48	4.75	4.75	18.75	500
5	ASLB10X8	8	4	32	6.50	4.75	18.75	320
5	ASLB10X10	10	5	40	6.50	4.75	20.25	465
5	ASLB10X12	12	6	48	6.50	4.75	20.25	550
7	ASLB14X12	12	6	48	8.50	6.50	23.75	790

*** For optional swivel hooks, add an "S" to part number and contact *Lift-All* for pricing.**

ADJUSTABLE LIFTING BEAM (ALB17)

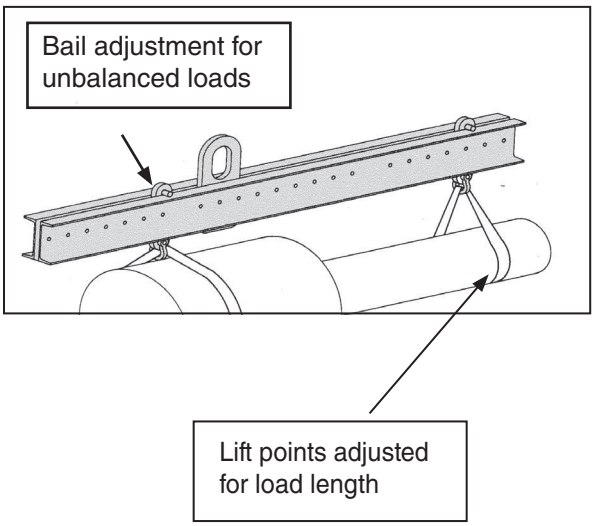


Features

- Adjust bail horizontally for lifting unbalanced loads.
- Provides clearance in low headroom applications.
- Spread adjusts in 6” increments.
- Shackles included.

Options

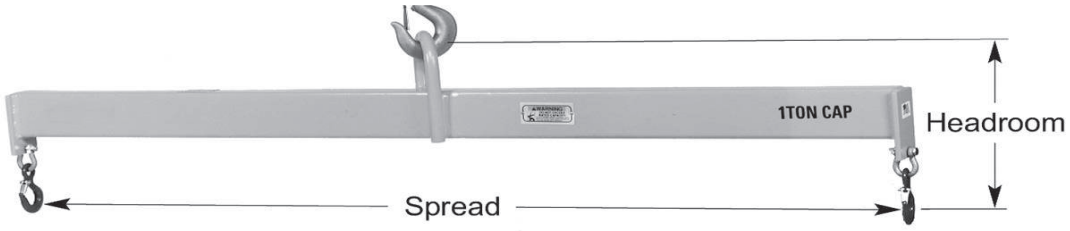
- Pair of swivel hooks*.



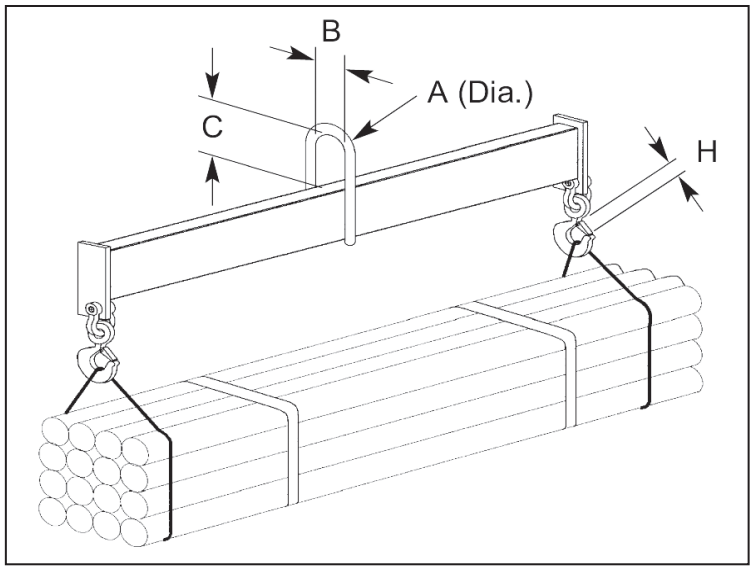
Rated Capacity (tons)	Part Number*	Spread (ft.)		Bail Adjustment (in.)		Bail Dimensions A • B • C • T (in.)	Headroom (in.)	Weight (lbs.)
		Max.	Min.	Range	D			
1-1/4	ALB2.5X6	6	3	24	3	1.50 • 3.00 • 5.00 • 0.63	14.7	150
2	ALB4X6	6	3	24	3	1.50 • 3.00 • 5.00 • 0.63	14.7	155
4	ALB8X8	8	4.5	36	6	2.00 • 4.00 • 7.00 • 0.75	19.8	285
5	ALB10X10	10	5	36	6	2.00 • 4.00 • 7.00 • 1.00	22.4	475

*** For optional swivel hooks, add an “S” to part number and contact *Lift-All* for pricing.**

FIXED SPREAD LIFTING BEAM (FSLB19)



Rated Capacity (tons)	Part Number	Spread (ft.)	Bail Dimensions A • B • C • H (in.)	Headroom (in.)	Weight (lbs.)
1/2	FSLB1X2	2	A • 0.75 B • 3.00 C • 5.00 H • 0.89	13.75	20
	FSLB1X3	3		13.75	26
	FSLB1X4	4		13.75	33
	FSLB1X6	6		13.75	48
	FSLB1X8	8		14.75	75
	FSLB1X10	10		14.75	93
1	FSLB2X2	2	A • 1.00 B • 3.00 C • 5.00 H • 0.89	14.75	26
	FSLB2X3	3		14.75	35
	FSLB2X4	4		14.75	44
	FSLB2X6	6		15.75	72
	FSLB2X8	8		15.75	93
	FSLB2X10	10		16.75	131
2	FSLB4X3	3	A • 1.00 B • 3.00 C • 5.00 H • 1.00	16.75	45
	FSLB4X4	4		17.75	55
	FSLB4X6	6		19.75	108
	FSLB4X8	8		19.75	140
	FSLB4X10	10			188
3	FSLB6X3	3	A • 1.50 B • 4.00 C • 7.00 H • 1.00	18.50	58
	FSLB6X4	4		20.50	87
	FSLB6X6	6		20.50	118
	FSLB6X8	8		20.50	222
	FSLB6X10	10		20.50	272



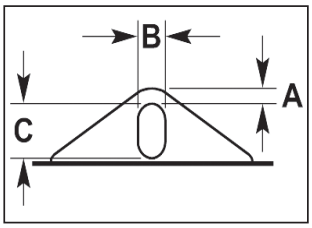
Features

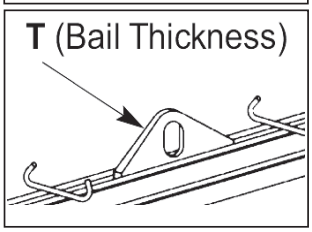
- Fixed spread.
- Eye hooks with latches.
- Sealed construction for cleaner beam.

BASKET SLING LIFTING BEAM (BSLB18)

Features

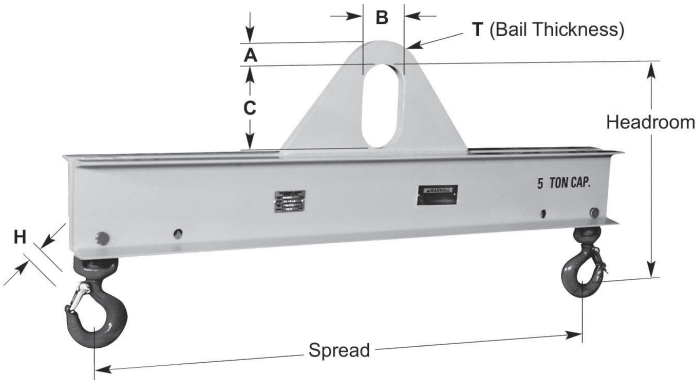
- Best beam for low headroom applications.
- Fixed spread.
- Bent bar hooks allow for 2" wide sling eyes:
  - One set for 3' and 4' spreads.
  - Two sets for 6' through 12' spreads.
- Spread 2 is one-half of spread 1.





Rated Capacity (tons)	Part Number	Spread (ft.)	Bail Dimensions A • B • C • T (in.)	Headroom (in.)	Weight (lbs.)
1/2	BSLB1X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75	8.50	40
	BSLB1X4	4		8.50	48
	BSLB1X6	6		8.50	78
	BSLB1X8	8		8.50	95
	BSLB1X10	10		8.50	113
	BSLB1X12	12		9.50	171
1	BSLB2X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75	8.50	40
	BSLB2X4	4		8.50	48
	BSLB2X6	6		9.50	93
	BSLB2X8	8		10.50	136
	BSLB2X10	10		10.50	175
	BSLB2X12	12		11.50	239
2	BSLB4X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75	9.50	52
	BSLB4X4	4		10.50	75
	BSLB4X6	6		10.50	139
	BSLB4X8	8		11.50	169
	BSLB4X10	10		12.50	246
	BSLB4X12	12		13.50	326
5	BSLB10X3	3	A • 2.00 B • 4.00 C • 7.00 T • 1.25	13.50	104
	BSLB10X4	4		14.50	135
	BSLB10X6	6		15.50	211
	BSLB10X8	8		16.50	310
	BSLB10X10	10		17.50	423
	BSLB10X12	12		19.50	618

LOW HEADROOM MULTIPLE SPREAD LIFTING BEAM (LHLB20)

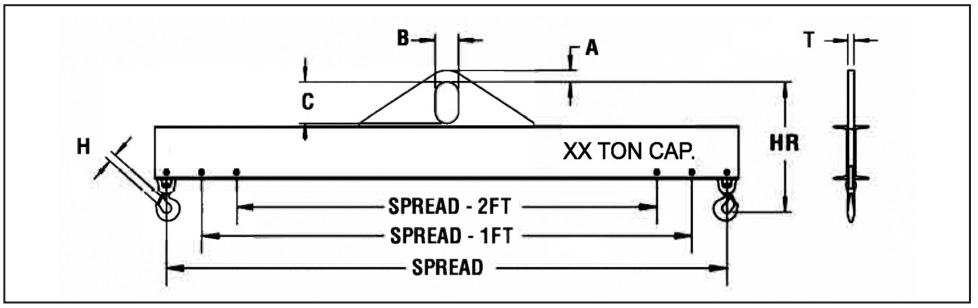


Features

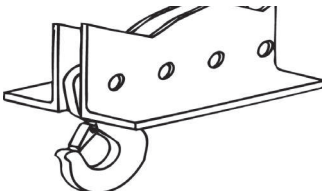
- Great for low headroom applications.
- Swivel hooks with latches standard.
- 3' & 4' beams have two spreads.
- Beams 6' and longer have three spreads.
- Inner spread lengths are shorter than outer spreads by 1' increments.
- Additional or custom hole configuration available.

Rated Capacity (tons)	Part Number	Spread (ft.)	Bail Dimensions A • B • C • T • H (in.)	Headroom (in.)	Weight (lbs.)
1/2	LHLB1X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 0.88	12.75	40
	LHLB1X4	4		12.75	50
	LHLB1X6	6		12.75	65
	LHLB1X8	8		12.75	95
	LHLB1X10	10		13.75	140
	LHLB1X12	12		13.75	160
	LHLB1X14	14		14.75	230
	LHLB1X16	16		15.75	305
	LHLB1X18	18		16.75	400
	LHLB1X20	20		16.75	450
	LHLB1X24	24		20.25	830
	LHLB1X30	30		22.25	1340
1	LHLB2X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 0.88	12.75	40
	LHLB2X4	4		12.75	50
	LHLB2X6	6		13.75	85
	LHLB2X8	8		13.75	115
	LHLB2X10	10		14.75	165
	LHLB2X12	12		15.75	230
	LHLB2X14	14		16.75	320
	LHLB2X16	16		18.50	415
	LHLB2X18	18		20.25	605
	LHLB2X20	20		20.25	675
	LHLB2X24	24		22.25	1095
2	LHLB4X3	3	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 0.88	13.75	50
	LHLB4X4	4		13.75	65
	LHLB4X6	6		14.75	100
	LHLB4X8	8		16.50	165
	LHLB4X10	10		17.50	230
	LHLB4X12	12		18.25	315
	LHLB4X14	14		20.25	480
	LHLB4X16	16		20.25	540
	LHLB4X18	18		24.75	800
	LHLB4X20	20		24.75	900
	LHLB4X24	24		27.75	1730

LOW HEADROOM MULTIPLE SPREAD LIFTING BEAM (LHLB20)

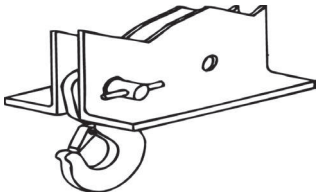


Options:

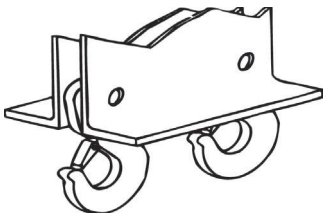


Extra Holes
Allows for extra hook positions in addition to the standard holes.

Specify number and spread.



FasPins
Allows for easy repositioning of hooks. Recommended for frequent hook position changes.



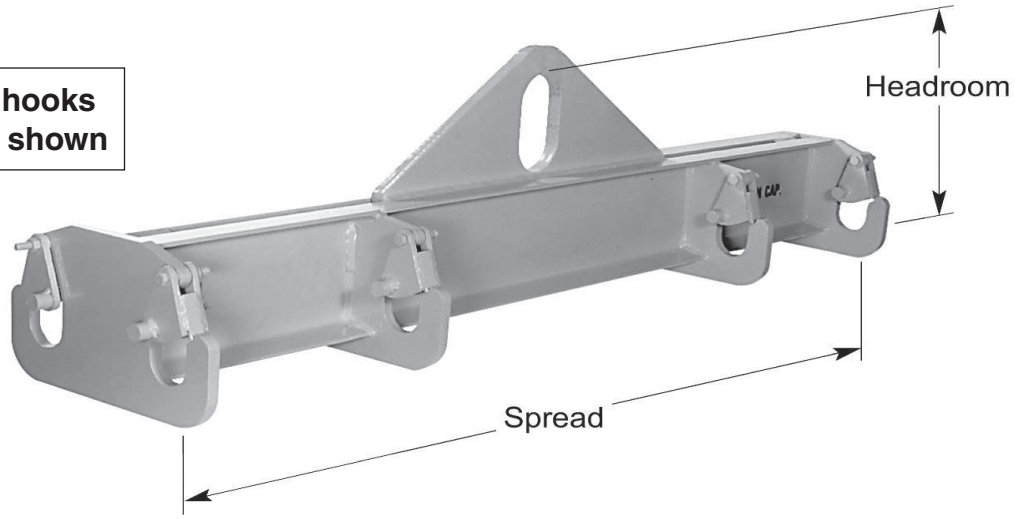
Extra Hooks
Allows for multiple pick points.

Saves time from having to move hooks.

Rated Capacity (tons)	Part Number	Spread (ft.)	Bail Dimensions A • B • C • T • H (in.)	Headroom (in.)	Weight (lbs.)
3	LHLB6X3	3	A • 1.25 B • 3.00 C • 5.00 T • 1.00 H • 1.00	15.25	70
	LHLB6X4	4		15.25	80
	LHLB6X6	6		16.25	140
	LHLB6X8	8		17.25	200
	LHLB6X10	10		18.25	275
	LHLB6X12	12		22.50	415
	LHLB6X14	14		24.50	650
	LHLB6X16	16		24.50	730
	LHLB6X18	18		27.50	1295
	LHLB6X20	20		27.50	1450
	LHLB6X24	24		27.50	1765
5	LHLB10X3	3	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 1.94	19.50	115
	LHLB10X4	4		20.50	145
	LHLB10X6	6		21.50	205
	LHLB10X8	8		25.50	325
	LHLB10X10	10		25.50	390
	LHLB10X12	12		27.50	580
	LHLB10X14	14		27.50	690
	LHLB10X16	16		30.25	1210
	LHLB10X18	18		30.25	1340
	LHLB10X20	20		30.25	1505
	LHLB10X24	24		33.25	2275
7-1/2	LHLB15X3	3	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 1.50	22.50	135
	LHLB15X4	4		23.25	170
	LHLB15X6	6		25.25	265
	LHLB15X8	8		27.25	415
	LHLB15X10	10		27.25	500
	LHLB15X12	12		30.25	910
	LHLB15X14	14		30.25	1070
	LBLH15X16	16		30.25	1600
	LBLH15X18	18		33.00	1665
10	LHLB20X3	3	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 1.56	23.50	150
	LHLB20X4	4		25.25	205
	LHLB20X6	6		27.25	335
	LHLB20X8	8		27.25	420
	LHLB20X10	10		30.25	775
	LHLB20X12	12		30.25	910
	LHLB20X14	14		30.25	1075
	LBLH20X16	16		33.00	1500
	LBLH20X18	18		33.00	1670

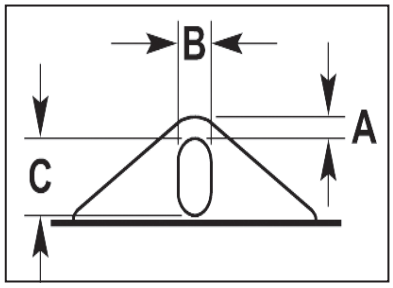
HEAVY DUTY TWIN BASKET SLING LIFTING BEAM (HDLB22)

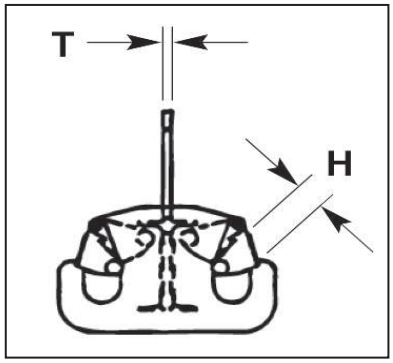
Two sets of fixed hooks (total of 8-Hooks) shown



Features

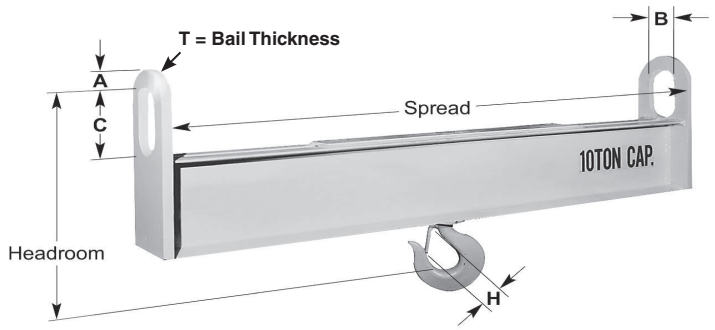
- For use with slings in a basket hitch.
- Latch hooks designed to minimize sling eye damage.
- One set of fixed hooks standard for 3' and 4' lengths (total of 4-hooks).
- Two sets of fixed hooks standard for all lengths over 4' (total of 8-hooks).
- Inner spread is one-half of outer spread.
- Extra spreads available upon request.





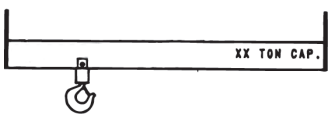
Rated Capacity (tons)	Part Number	Spread (ft.)	Bail / Hook Dimensions A • B • C • T • H (in.)	Headroom (in.)	Weight (lbs.)
1/2	HDLB1X3 HDLB1X4 HDLB1X6 HDLB1X8 HDLB1X10 HDLB1X12	3 4 6 8 10 12	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 1.06	8.50 8.50 8.50 8.50 9.50 9.50	50 65 110 150 200 220
1	HDLB2X3 HDLB2X4 HDLB2X6 HDLB2X8 HDLB2X10 HDLB2X12	3 4 6 8 10 12	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 1.12	8.50 8.50 9.50 10.50 10.50 11.50	50 65 145 210 230 290
2	HDLB4X3 HDLB4X4 HDLB4X6 HDLB4X8 HDLB4X10 HDLB4X12	3 4 6 8 10 12	A • 0.88 B • 3.00 C • 5.00 T • 0.75 H • 1.12	9.50 10.50 10.50 11.50 12.50 13.50	70 90 160 225 300 375
5	HDLB10X3 HDLB10X4 HDLB10X6 HDLB10X8 HDLB10X10 HDLB10X12	3 4 6 8 10 12	A • 2.00 B • 4.00 C • 7.00 T • 1.00 H • 1.12	13.50 14.50 15.50 16.50 16.50 16.50	90 160 275 350 450 500
7-1/2	HDLB15X3 HDLB15X4 HDLB15X6 HDLB15X8 HDLB15X10 HDLB15X12	3 4 6 8 10 12	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 1.75	14.50 15.50 16.50 17.50 17.50 19.50	155 180 330 410 500 700
10	HDLB20X3 HDLB20X4 HDLB20X6 HDLB20X8 HDLB20X10 HDLB20X12	3 4 6 8 10 12	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 1.75	15.50 16.50 17.50 19.50 19.50 19.50	150 200 360 500 850 1000

TWIN HOIST LIFTING BEAM (THLB25)



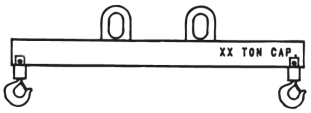
Features

- Use two (or more) hoists to increase lifting stability.
- Swivel hook with latch standard.
- Multiple options available.



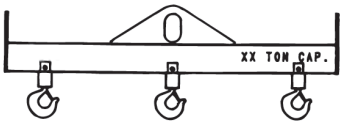
OPTION A

Center hook offset to accommodate hoists of unequal capacities.



OPTION B

Custom pick points for both top and bottom.



OPTION C

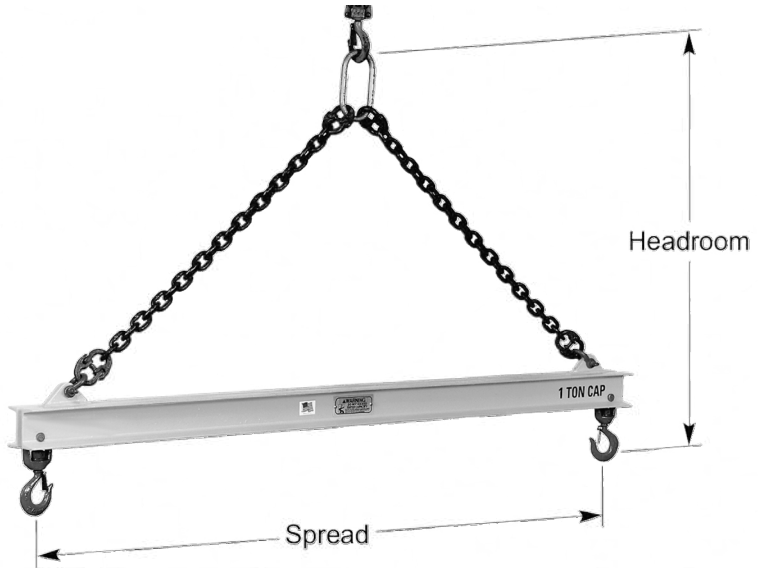
Center bail and extra pair of hooks for maximum versatility.

Rated Capacity (tons)	Part Number	Spread (ft.)	Bail / Hook Dimensions A • B • C • T • H (in.)	Headroom (in.)	Weight (lbs.)
2	THLB4X6 THLB4X8 THLB4X10 THLB4X12 THLB4X14 THLB4X16	6 8 10 12 14 16	A • 1.50 B • 3.00 C • 5.00 T • 0.63 H • 1.13	16.75 16.75 17.75 17.75 18.75 18.75	125 160 240 280 360 400
4	THLB8X6 THLB8X8 THLB8X10 THLB8X12 THLB8X14 THLB8X16	6 8 10 12 14 16	A • 1.50 B • 3.00 C • 5.00 T • 0.63 H • 1.50	20.00 21.00 22.00 23.00 23.00 25.00	160 240 310 410 500 725
6	THLB12X6 THLB12X8 THLB12X10 THLB12X12 THLB12X14 THLB12X16	6 8 10 12 14 16	A • 1.50 B • 3.00 C • 5.00 T • 0.75 H • 2.06	27.50 28.50 28.50 30.50 30.50 30.50	220 300 380 550 640 780
10	THLB20X6 THLB20X8 THLB20X10 THLB20X12 THLB20X14 THLB20X16	6 8 10 12 14 16	A • 2.00 B • 4.00 C • 7.00 T • 1.00 H • 2.25	29.00 29.00 32.00 32.00 32.00 32.00	340 420 800 920 1100 1220
15	THLB30X8 THLB30X10 THLB30X12 THLB30X14 THLB30X16	8 10 12 14 16	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 2.25	38.25 38.25 38.25 41.25 41.25	740 865 1050 1930 2158
20	THLB40X8 THLB40X10 THLB40X12 THLB40X14 THLB40X16	8 10 12 14 16	A • 2.00 B • 4.00 C • 7.00 T • 1.25 H • 3.00	35.50 38.50 38.50 38.50 38.50	830 1130 1266 1926 2196

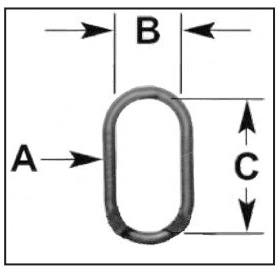
FIXED SPREADER BEAM (FSB30)

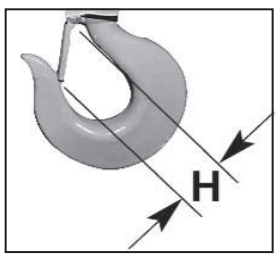
Features

- Ideal where headroom is not limited.
- Adds stability to lift.
- Chain rigging standard.
- Wire rope rigging available.
- Adjust-A-Link rigging available for additional flexibility.



Rated Capacity (tons)	Part Number*	Spread (ft.)	Bail / Hook Dimensions A • B • C • H (in.)	Headroom (in.)	Weight (lbs.) Includes Rigging
2	FSB4X4	4	A • 0.50 B • 2.50 C • 5.00 H • 0.97	34	72
	FSB4X6	6		46	104
	FSB4X8	8		58	142
	FSB4X10	10		70	159
	FSB4X12	12		82	210
	FSB4X16	16		106	342
	FSB4X20	20		132	533
	FSB4X24	24		156	632
5	FSB10X4	4	A • 1.00 B • 3.50 C • 7.00 H • 1.06	37	94
	FSB10X6	6		49	128
	FSB10X8	8		61	170
	FSB10X10	10		73	198
	FSB10X12	12		83	272
	FSB10X16	16		110	435
	FSB10X20	20		134	587
	FSB10X24	24		158	858
10	FSB20X4	4	A • 1.25 B • 4.38 C • 8.75 H • 1.50	41	148
	FSB20X6	6		53	195
	FSB20X8	8		64	236
	FSB20X10	10		77	275
	FSB20X12	12		86	355
	FSB20X16	16		113	667
	FSB20X20	20		138	931
	FSB20X24	24		163	1537



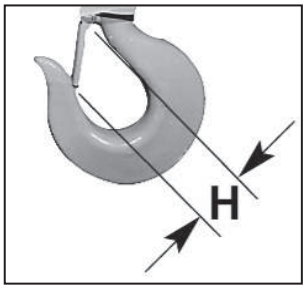


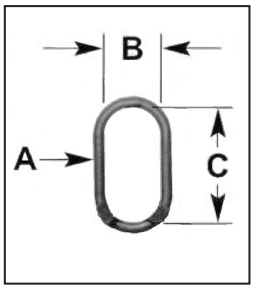
*** Add "W" to the part number for wire rope rigging; add "A" to the part number for Adjust-A-Link rigging.**

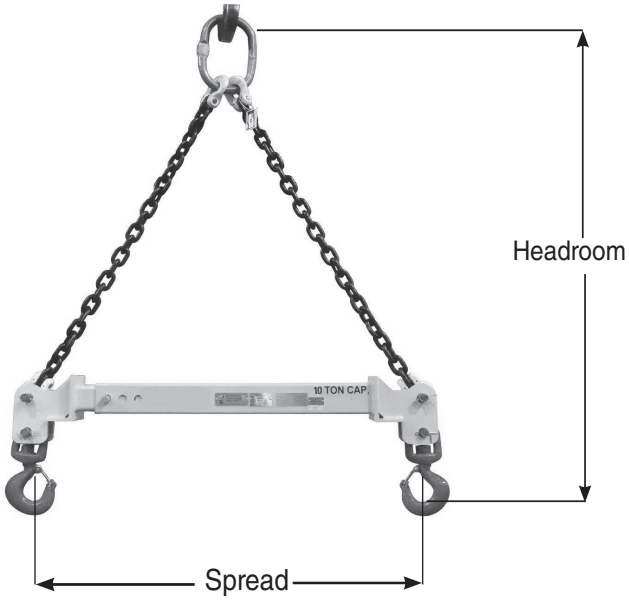
ADJUSTABLE SPREADER BEAM (ASB32)

Features

- Great versatility and stability where headroom is not limited.
- Chain rigging standard.
- Wire rope rigging available.
- Telescoping spread adjusts in 1-inch increments.







Rated Capacity (tons)	Part Number*	Spread (ft.)	Bail / Hook Dimensions A • B • C • H (in.)	Headroom Min / Max (in.)	Weight (lbs.) Includes Rigging
2	ASB4X4-6 ASB4X6-10 ASB4X8-14 ASB4X12-20	4 to 6 6 to 10 8 to 14 12 to 20	A • 0.50 B • 2.36 C • 3.94 H • 0.97	48 min. / 57 max. 72 min. / 88 max. 96 min. / 113 max. 132 min. / 166 max.	79 98 192 268
5	ASB10X4-6 ASB10X6-10 ASB10X8-14 ASB10X12-20	4 to 6 6 to 10 8 to 14 12 to 20	A • 1.00 B • 3.94 C • 7.09 H • 1.41	55 min. / 64 max. 79 min. / 95 max. 102 min. / 126 max. 138 min. / 172 max.	139 207 266 752
10	ASB20X4-6 ASB20X6-10 ASB20X8-14 ASB20X12-20	4 to 6 6 to 10 8 to 14 12 to 20	A • 1.25 B • 5.51 C • 10.63 H • 1.78	60 min. / 69 max. 74 min. / 111 max. 108 min. / 132 max. 144 min. / 163 max.	179 244 548 798
15	ASB30X4-6 ASB30X6-10 ASB30X8-14 ASB30X12-20	4 to 6 6 to 10 8 to 14 12 to 20	A • 1.50 B • 5.25 C • 10.5 H • 2.22	64 min. / 72 max. 87 min. / 104 max. 111 min. / 135 max. 147 min. / 180 max.	243 476 623 894

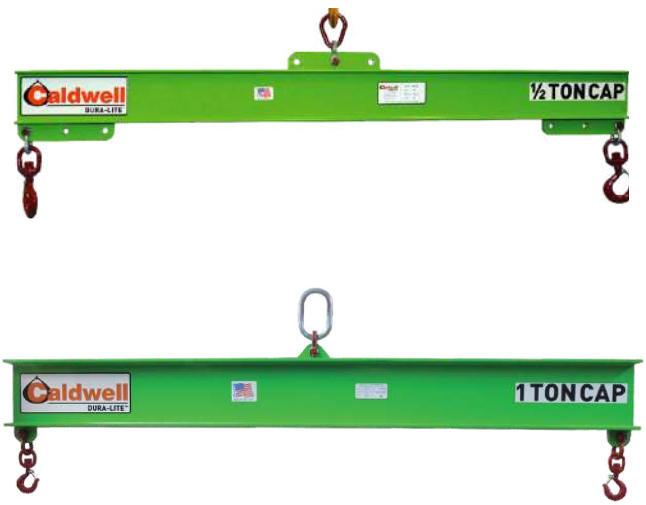
*** Add "W" to part number for wire rope rigging.**

DURA-LITE™ COMPOSITE LIFTING BEAMS

The latest technology to the lifting industry, these patented *Dura-Lite* products provide new capabilities with strong lightweight materials. Dura-Lite lifting and spreader beams incorporate the same composite technology being used in today's aerospace, automotive and construction industries, which provided high strength-to-weight ratio.

Features and Benefits

- Lightweight
- Non–corrosive
- Non–conductive
- Can be used for wide range of applications
- Standard capacities range from 1/4 to 3 tons
- Custom Designed Dura-Lite equipment available
- Amazingly strong and impact resistant
- Chemical tested
- Temperature tested
- Cycle tested
- Proof-tested with a certificate issued
- Compliant with European Community standards CE



Caldwell Dura-Lite equipment offers many advantages to a wide variety of applications and industries.

- Composite material is not detected by radar, ideal for military applications.
- Lightweight composite beams do not reduce crane capacity as much as the steel equivalent.
- Beams 8' and under can be shipped via small package service saving time and money.
- Non–conductive materials are ideal for use in the utility industry. Marine applications and other harsh environments are no match for the non-corrosive properties of these composite beams.
- Dura-Lite beams are the lightweight, ergonomic solution needed to help reduce work related injuries.
- Service class 4 means that these lifters are designed for 2 million load cycles – that's over 30 years at 200 lifts per day!

The Caldwell Group Inc.
PAT NO. US 9,359,174, B2

Composite Lifting Beams

DURA-LITE™ MODEL 419 FIXED SPREADER BEAM

Provided as shown with lifting ring and load hooks.

The Caldwell Group Inc.
PAT NO. US 9,359,174, B2

Capacity Tons	Model No.	Spread (in.)	Head Room (in.)	Beam Only Weight (lbs.)	Weight with Hardware (lbs.)	Bail Dimensions (in.)			Hook D
						A	B	C	
1/4	419-1/4-2	24	13.5	6	8	0.38	1.5	2	0.89
	419-1/4-3	36	13.5	8	10				
	419-1/4-4	48	13.5	10	12				
	419-1/4-6	72	16.5	23	25				
	419-1/4-8	96	16.5	30	32				
1/2	419-1/2-2	24	13.9	7	9	0.38	1.5	1.9	0.89
	419-1/2-3	36	13.9	9	11				
	419-1/2-4	48	14.9	12	14				
	419-1/2-6	72	15.9	25	27				
	419-1/2-8	96	16.9	42	44				
1	419-1-2	24	19.6	9	15	0.62	2.8	4.5	0.89
	419-1-3	36	19.6	11	17				
	419-1-4	48	21.6	19	25				
	419-1-6	72	23.6	34	39				
	419-1-8	96	23.6	62	67				
2	419-2-2	24	21.9	15	24	0.62	2.8	4.3	0.91
	419-2-3	36	24.1	24	33				
	419-2-4	48	25.9	46	56				
	419-2-6	72	25.9	60	69				
3	419-3-2	24	24.9	21	32	0.62	2.8	4.3	1
	419-3-3	36	24.9	24	35				
	419-3-4	48	26.6	46	58				

Dura-Lite **beams comply with current ASME B30.20, BTH-1, design category B, service class 4 standards.**

Composite Lifting Beams

DURA-LITE™ MODEL 416 ADJUSTABLE SPREADER BEAM

Provided as shown with lifting ring and load hooks.

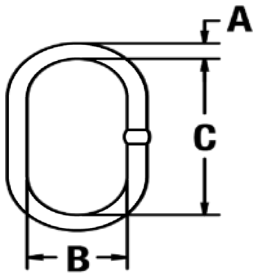
The Caldwell Group Inc.
PAT NO. US 9,359,174, B2

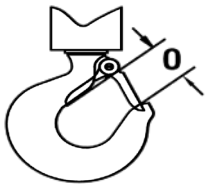
Capacity Tons	Model No.	Spread (in.)	Head Room (in.)	Beam Only Weight (lbs.)	Weight with Hardware (lbs.)	Bail Dimensions (in.)			Hook D
						A	B	C	
1/4	416-1/4-2	24	18	7	9	0.38	1.5	2	0.89
	416-1/4-3	36	30	9	11				
	416-1/4-4	48	42	11	13				
	416-1/4-6	72	60	27	28				
	416-1/4-8	96	84	32	35				
1/2	416-1/2-2	24	18	9	11	0.38	1.5	1.9	0.89
	416-1/2-3	36	30	10	13				
	416-1/2-4	48	42	14	16				
	416-1/2-6	72	60	30	32				
	416-1/2-8	96	84	49	51				
1	416-1-2	24	18	14	20	0.62	2.8	4.5	0.89
	416-1-3	36	30	16	22				
	416-1-4	48	42	23	29				
	416-1-6	72	60	48	54				
	416-1-8	96	84	72	79				
2	416-2-2	24	18	19	30	0.62	2.8	4.3	0.91
	416-2-3	36	30	25	46				
	416-2-4	48	42	45	57				
	416-2-6	72	60	68	79				
3	416-3-2	24	18	22	38	0.62	2.8	4.3	1
	416-3-3	36	30	25	41				
	416-3-4	48	42	45	62				

Dura-Lite **beams comply with current ASME B30.20, BTH-1, design category B, service class 4 standards.**

Composite Lifting Beams

DURA-LITE™ MODEL 430 SPREADER BEAM





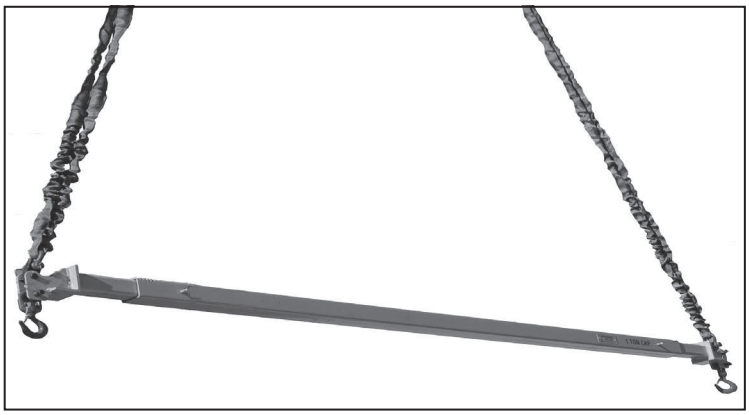
Provided as shown with lifting ring and load hooks.

The Caldwell Group Inc.
PAT NO. US 9,359,174, B2

Capacity Tons	Model No.	Spread (in.)	Head Room (in.)	Beam Only Weight (lbs.)	Weight with Hardware (lbs.)	Bail Dimensions (in.)			Hook D
						A	B	C	
1/4	430-1/4-2	24	24	5	9	0.62	2.8	5	0.89
	430-1/4-3	36	30	7	11				
	430-1/4-4	48	36	9	13				
	430-1/4-6	72	48	14	17				
	430-1/4-8	96	60	18	22				
1/2	430-1/2-2	24	24.5	5	9	0.62	2.8	5	0.89
	430-1/2-3	36	30.5	7	11				
	430-1/2-4	48	36.5	10	14				
	430-1/2-6	72	48.5	14	18				
	430-1/2-8	96	62	29	34				
1	430-1-2	24	25	6	13	0.62	2.8	5	0.89
	430-1-3	36	31	9	15				
	430-1-4	48	37	11	18				
	4301-6	72	51	25	32				
	430-1-8	96	64	44	51				
2	430-2-2	24	27	11	22	0.62	2.8	5	0.91
	430-2-3	36	33	13	24				
	430-2-4	48	40	21	32				
	430-2-6	72	53	34	46				
	430-2-8	96	65	63	76				
3	430-3-2	24	27	11	24	0.62	2.8	5	1
	430-3-3	36	33	13	27				
	430-3-4	48	42	25	40				
	430-3-6	72	54	49	64				

Dura-Lite beams comply with current ASME B30.20, BTH-1, design category B, service class 4 standards.

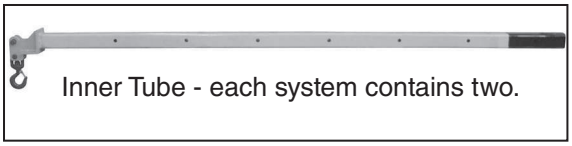
MODULAR SPREADER BEAM (MSB14)



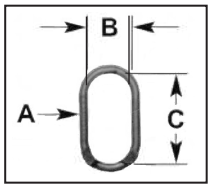
Features

- Designed to accommodate spreads from 10' to 22'.
- 1-Ton and 2-Ton capacities.
- Lightweight.
- Faspin with lanyard allows for quick adjustment of spread in 1' increments.
- Hair pin cotter to rigging attachment.
- Designed and manufactured to ASME standards.
- Roundslings available for top rigging.

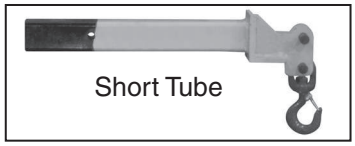
Outer Tube



Inner Tube - each system contains two.



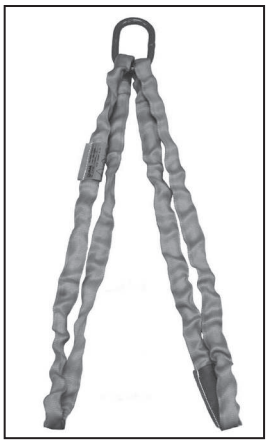
Lifting Eye Dimensions



Short Tube

Rated Capacity (tons)	Part Number	Spread Min/Max (ft.)	Headroom at Minimum Spread (in.)	Headroom at Maximum Spread (in.)	A	B	C	Hook Opening w/Latch (in.)	Weight (lbs.)
1	**MSB2**	10 min. / 22 max.	135.6	150.7	0.50	2.5	5	0.97	195
2	**MSB4**	10 min. / 22 max.	135.6	150.7	0.75	3.0	6	0.97	275

Recommended Options Top Rigging

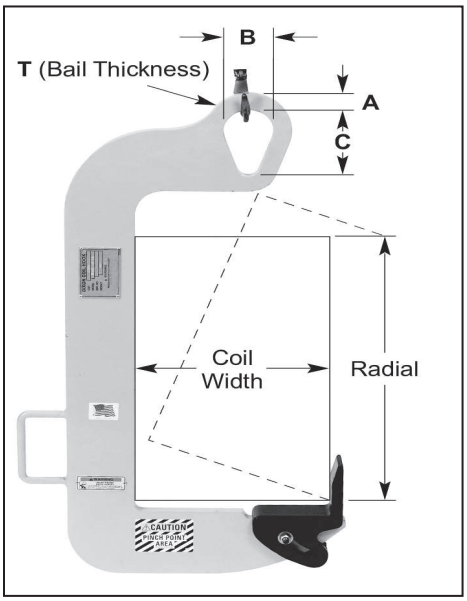


Top Rigging - Add "R" to part number

Two each: 2-Leg *Tuflex* roundslings per beam
Minimum rigging angle 45°

Spreader Part Number	For Spreader Lengths	Rigging Part Number
MSB2	10' - 16' 16' - 22'	DOEN30 X 11'-6" DOEN30 X 16'-0"
MSB4	10' - 16' 16' - 22'	DOEN60 X 11'-6" DOEN60 X 16'-0"

DIXON COIL HOOK WITH PIVOTING WEDGE (DCH80)

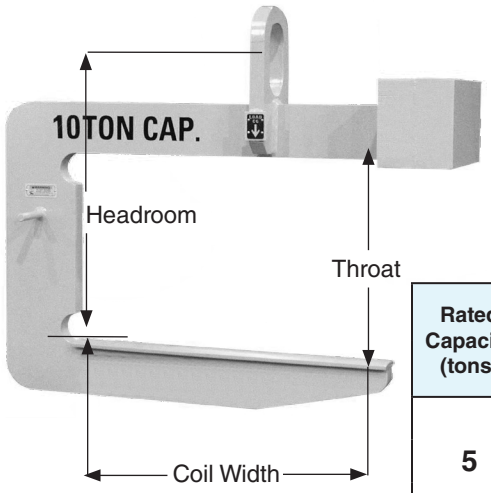


Features

- For easy upending of coils from horizontal to vertical.
- Pivoting wedge great for lifting stacked coils.
- Wedge also acts as a coil retainer.
- Great for use with small, lightweight coils.
- Good for limited overhead clearance.
- Standard handle for easier coil positioning.

Rated Capacity (tons)	Part Number	Max. Coil Width (in.)	Max. Radial (in.)	Min. ID (in.)	Bail Dimensions (in.)				Weight (lbs.)
					A	B	C	T	
1/2	DCH1X6	6.0	13.0	9.0	0.81	2.0	3.3	0.5	20
1/2	DCH1X12	12.0	13.0	13.0	0.81	2.0	3.3	0.5	28
1	DCH2X8	8.0	16.0	10.0	0.81	2.0	3.3	0.5	23
2	DCH4X10	10.0	18.0	12.5	1.00	2.6	4.0	.75	42
3-1/2	DCH7X12	12.0	20.0	14.5	1.19	3.6	5.3	1.0	80

HEAVY DUTY COIL HOOK (HDCH82)



Features

- Designed for heavy duty applications.
- High tensile alloy steel plate reduces physical size and weight.
- Counter balanced to hang level when empty.
- Inside radius on hooks to avoid coil edge contact.
- Guide handles for ease of hook positioning.
- Handles a wide range of coil widths.
- Available with **Options** padding for additional coil protection.

Rated Capacity (tons)	Part Number	Coil Width Min / Max (in.)	Throat (in.)	HR Headroom (in.)	Bail Dimensions (in.)				Weight (lbs.)
					A	B	C	T	
5	HDCH10X36	24 / 36	24	37.38	1.50	4	7	1.25	420
	HDCH10X48	30 / 48	24	38.00	1.50	4	7	1.25	584
	HDCH10X60	36 / 60	24	38.50	1.50	4	7	1.25	680
7-1/2	HDCH15X36	24 / 36	24	37.50	1.50	4	7	1.50	615
	HDCH15X48	30 / 48	24	38.25	1.50	4	7	1.50	774
	HDCH15X60	36 / 60	24	39.00	1.50	4	7	1.50	942
10	HDCH20X48	30 / 48	24	41.25	2.00	5	9	1.75	928
	HDCH20X60	36 / 60	24	41.38	2.00	5	9	1.75	1295
	HDCH20X72	42 / 72	24	42.50	2.00	5	9	1.75	1616
15	HDCH30X48	30 / 48	30	47.88	2.00	5	9	1.75	1450
	HDCH30X60	36 / 60	30	48.00	2.00	5	9	1.75	1824
	HDCH30X72	42 / 72	30	48.75	2.00	5	9	1.75	2227
20	HDCH40X60	36 / 60	30	52.13	2.25	6	12	2.0	2175
	HDCH40X72	42 / 72	30	52.31	2.25	6	12	2.0	2625

BEAM FLANGE CLAMPS (BFC)

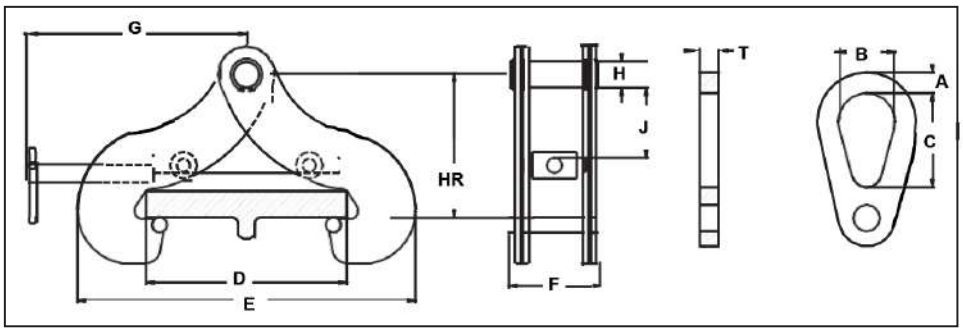
Great for the Lifting of (or Suspension From) I-Beams

Option LB
Large Bail

Features

- Rated load capacities from 1 to 10 metric tons.
- Proof-test with a certificate.
- Lightweight and portable design.
- Left-hand thread and right-hand thread screw spindle allows for rapid clamping and unclamping.
- Locknut prevents inadvertent loosening of clamp.
- Jaw opening adjusts to a wide range of beam types and flange widths.
- Use only for vertical loading.
- Built-in suspension pin provides lower headroom.
- Powder-coated finish.
- Available with large bail option for oversized hoist hooks.
- 5:1 design factor meets portions of ASME B30.16.
- Complies with ASME B30.20 and BTH-1 standards.

Dimension (in.)															
Part Number	Rated Capacity (lbs.)	D		Max E	F	G	Diameter H	J	A	B	C	T	Headroom		Weight (lbs.)
		Min	Max										Min	Max	
BFC1	**2,200**	3.0	7.50	12.25	3.00	9.25	0.88	2.10	0.75	2.00	2.00	0.63	3.00	5.00	8
BFC2	**4,400**	3.0	7.50	12.25	3.00	9.25	0.88	2.10	0.75	2.00	2.00	0.63	3.00	5.00	9
BFC3	**6,600**	6.0	12.0	19.75	4.25	11.00	1.25	2.38	1.00	2.50	2.50	1.00	4.50	7.50	19
BFC5	**11,000**	6.0	12.0	19.75	4.25	11.00	1.25	2.38	1.00	2.50	2.50	1.00	4.50	7.50	22
BFC10	**22,000**	6.0	13.25	22.50	6.00	14.63	1.75	4.65	1.38	3.75	6.25	1.25	7.50	10.25	50



Applications

Allows for the capability of hanging hoists or rigging from an overhead load bearing structure.

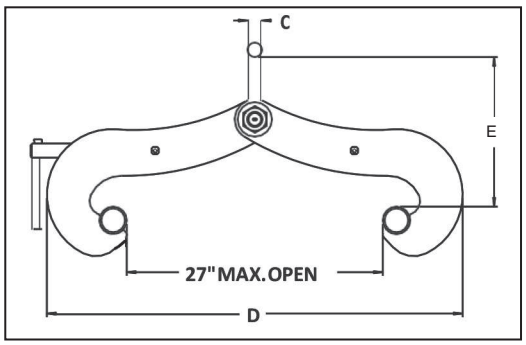
For lifting and positioning structural beams. Can be used in pairs in conjunction with a spreader beam for additional versatility.

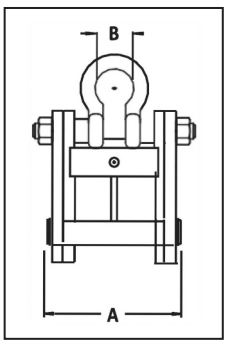
GIRDER CLAMPS

(Use for Vertical Lifting Only)

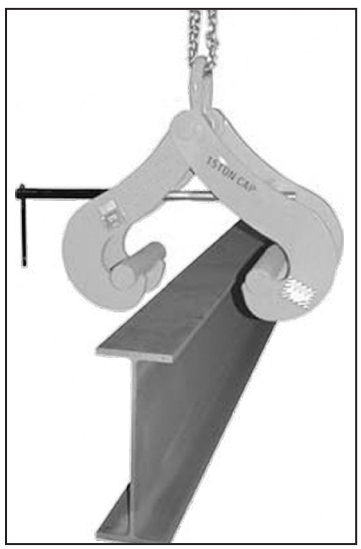
Features

- Efficiently handles wide flange beam sections and plate girders.
- Design ensures positive grip and minimum maintenance.
- Thread screw spindles allow for quick clamping and unclamping.





Part Number	Rated Capacity (tons)	Dimensions (inches)								
		Flange Width		Max. Flange Thickness	A	B	C	D Min. - Max.	E Min. - Max.	Weight (lbs.)
		Min.	Max.							
GC15	**15**	6	24	3	14.81	3.90	1.60	23 - 44	15.7 - 23.4	234
GC20	**20**	6	24	3	14.81	5.00	2.10	23 - 44	18.3 - 25.9	291
GC25	**25**	6	24	3	14.81	5.00	2.10	23 - 44	18.3 - 25.9	342

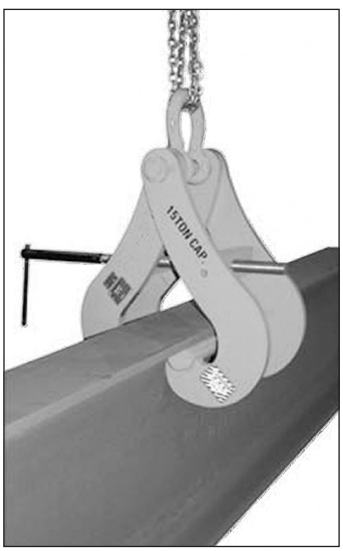


WARNING

Use for vertical lifting only

For lifting and positioning structural beams.

Can be used in pairs in conjunction with a spreader beam for additional stability.



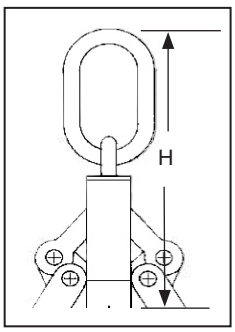
BEAM GRAB (F)

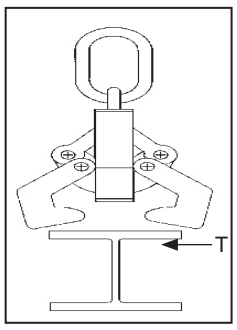
For Vertical Lifting Only (Not Suspension)

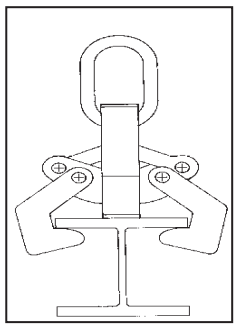
Features

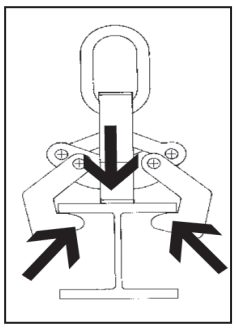
- Heavy-duty design for lifting wide flange beams and plate girders.
- Recessed base accepts studs in beam surface.
- Eliminates need for slings, chokers and spreader bars.

Rated Capacity (tons)	Part Number	Unit Height H (in.)	Flange Width W (in.)		Flange Thickness T (in.)		Weight (lbs.)
			Min.	Max.	Min.	Max.	
5	F5	22.7	4	4	0.25	0.25	68
			5	5	0.25	0.38	
			6	10	0.25	1.00	
15	F15	30.1	7	7	0.50	0.75	182
			8	8	0.50	1.00	
			9	10	0.50	1.25	
			11	17	0.25	2.00	
25	F25	44.8	16	17	1.25	3.00	541
			18	24	1.00	3.00	
35	F35	52.9	16	18	2.25	4.00	841
			20	22	2.00	4.00	
			24	26	1.75	4.00	
			28	36	1.00	4.00	







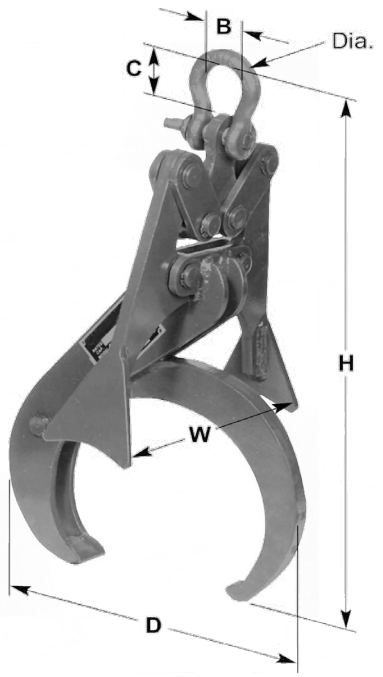


Operation:

1. Lower grab onto beam.
2. Lift arms, if necessary, to slide under beam flange.
3. As beam is lifted, pressure forces arms together to secure beam.
4. The heavier the beam, the greater the clamping force.

PIPE GRAB (C OR S)

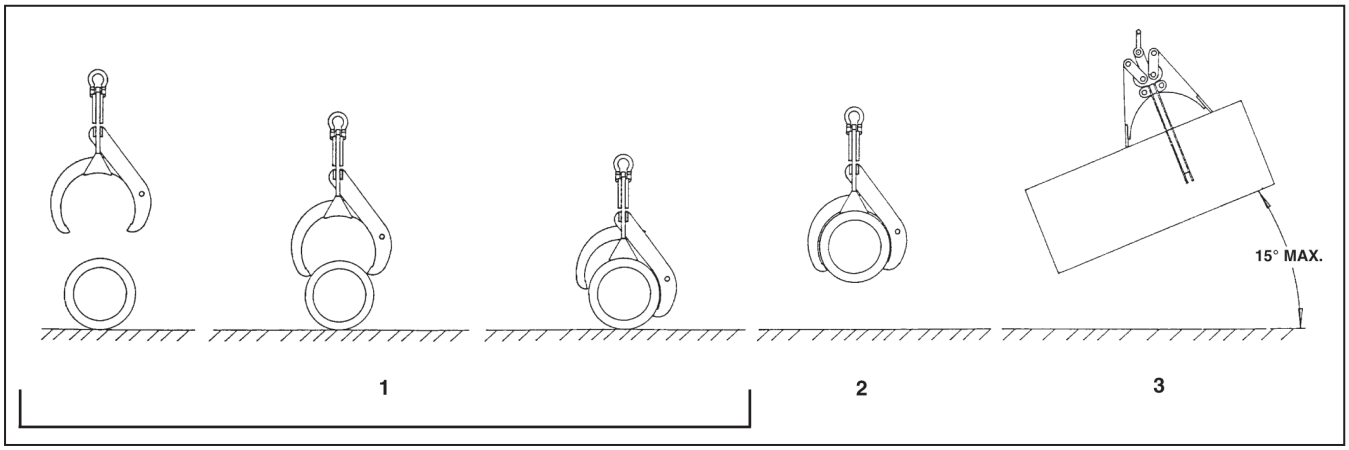
(For Cast Iron or Steel Pipe only)



Features

- Automatically clamps to pipe when lowered onto it.
- Movable outriggers stabilize the pipe during lift.
- No blocking required.
- Quick and efficient handling of properly balanced pipe.

Rated Capacity (lbs.)	Cast Iron		Steel		Height H (in.)	Width W (in.)	Depth D (in.)	Shackle Dimensions (in.) Dia. • B • C	Weight (lbs.)
	Part Number	Pipe OD (in.)	Part Number	Pipe OD (in.)					
450	C3	4.00	S3	3.50	10	5	6	0.38 • 1.03 • 1.44	7
600	C4	4.80	S4	4.50	14	8	7	0.44 • 1.16 • 1.69	9
1000	C6	6.90	S6	6.63	17	11	11	0.50 • 1.31 • 1.88	15
1400	C8	9.05	S8	8.63	22	13	14	0.50 • 1.31 • 1.88	25



Operation:

1. Lower grab onto approximate center of pipe. Grab will open and seat on pipe.
2. Lift slowly to check for pipe balance. Never exceed a 15° angle.
3. If angle exceeds 15°, lower pipe and reposition grab.

PIPE TONGS (PTL)

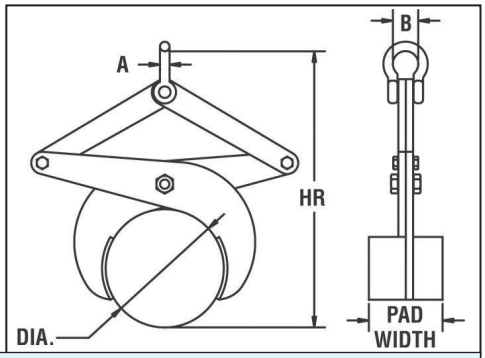
For Vertical Lifting Only (not Suspension)

Adjustable

Fixed

Features

- Pipe Tongs are made of sturdy construction to handle pipe, round bars, castings, etc.
- Tongs are provided with bare steel curved gripping arms.
- Optional replaceable urethane pads available to protect smooth or polished surfaces.
- May be used in pairs with a lifting beam for added stability.

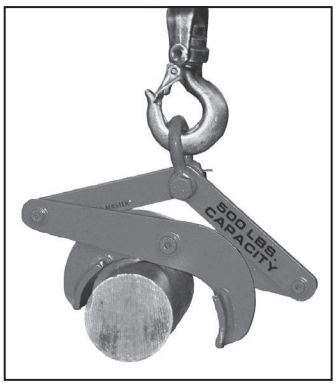


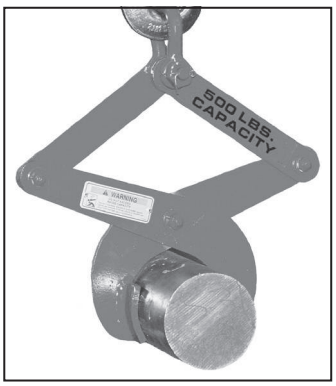
FIXED DIAMETER

Rated Capacity (lbs.)	Part Number	Dia. (in.)	Headroom Minimum (in.)	A (in.)	B (in.)	Weight (lbs.)
1000	PTLF5	5	15.50	0.50	1.31	17
2000	PTLF8	8	23.50	0.50	1.31	25

ADJUSTABLE DIAMETER

Rated Capacity (lbs)	Part Number	Bare Steel Range Min / Max (in.)	Urethane Pad Range Min / Max (in.)	HR Headroom Range Min / Max (in.)	Pad Width (in.)	A (in.)	B (in.)	Weight (lbs.)
1000	PTLA4	2.00 / 4.00	1.25 - 3.25	11.21 - 15.15	2.50	0.50	1.31	8
2000	PTLA8	4.00 / 8.00	3.25 - 7.25	19.18 - 26.49	5.00	0.50	1.31	29
2000	PTLA12	7.00 / 12.00	6.25 - 11.25	25.95 - 35.81	6.00	0.50	1.31	49
2000	PTLA15	10.00 / 15.00	9.25 - 14.25	30.03 - 38.67	6.00	0.50	1.31	77





⚠ WARNING Decreasing the load by bumping or substantial imbalance can, under certain circumstances, loosen the grip. Do not use in diameters other than those specified on nameplate.

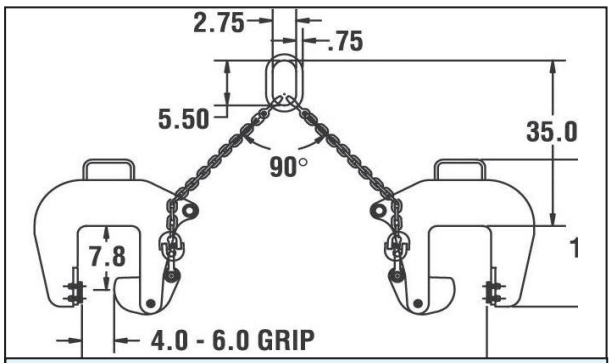
CONCRETE MANHOLE HOUSING LIFTER (MHL)

Features

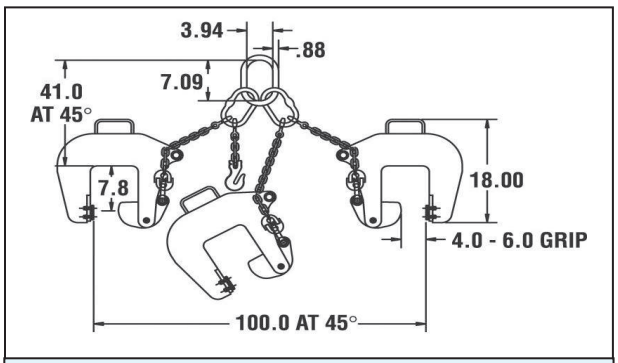
- Designed for 4"- 6" concrete wall thickness.
- Will not damage concrete seat.
- Legs can be quickly positioned to balance load.
- 2-Leg and 3-Leg models available.
- Conforms to ASME B30.9 & B30.20.

Note: Constant tension is required to maintain positive load contact.

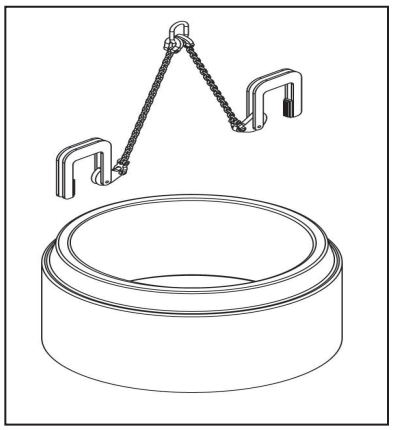
Rated Capacity (lbs.)	Part Number	Description	Max. Dia.	Weight (lbs.)
10,000	**MHL5**	**2-Leg Model** (42" each leg)	92.5	131
15,000	**MHL7-1/2**	**3-Leg Model** (2 legs @ 42", 1 leg @72" with chain shortener)	101	181
5,000	**MHLC**	Clamp Only	—	45

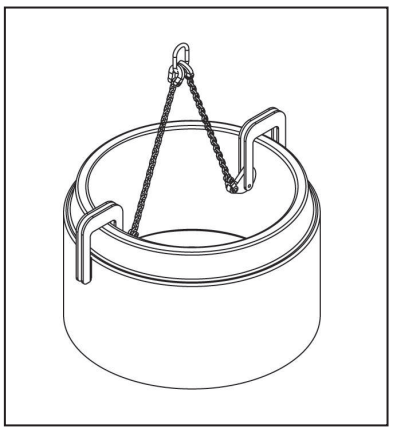


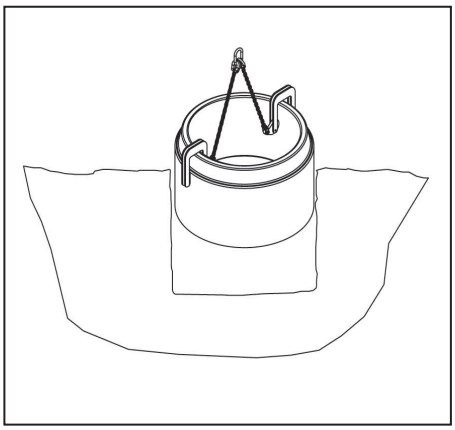
2-Leg Model



3-Leg Model





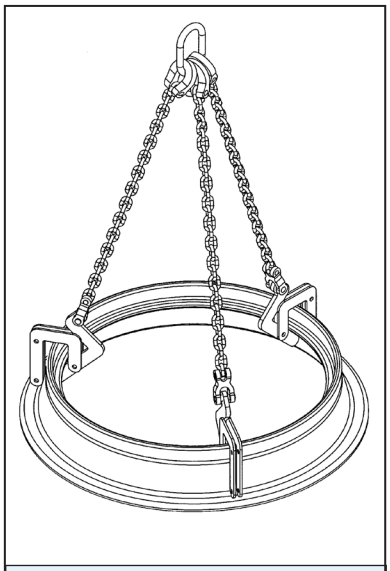


MANHOLE SLEEVE LIFTER (MCL)

2-Leg Lifter

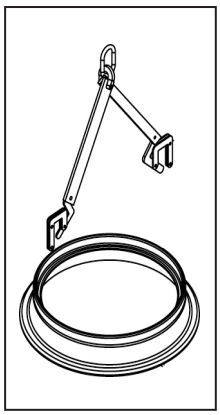
Features

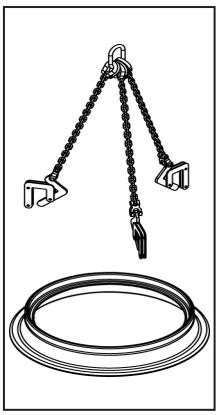
- Easy to attach and release from sleeve.
- The quick and easy way to place cast manhole sleeves.
- 2-Leg or 3-Leg models available.



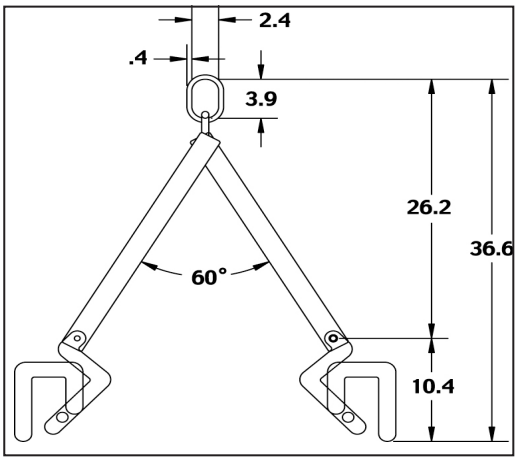
3-Leg Lifter

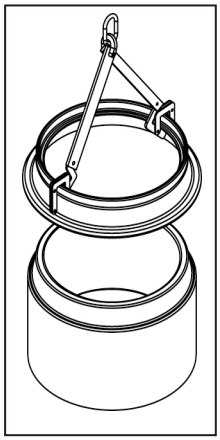
Note: Flange diameter range is 12"- 30"

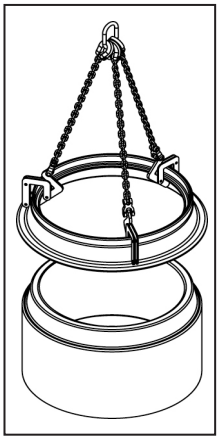


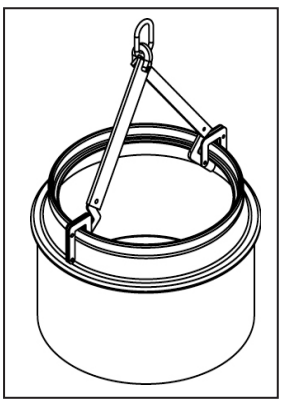


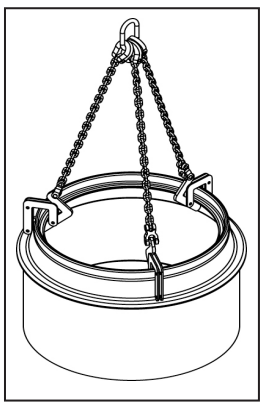
Rated Capacity (lbs.)	Part Number	Description	Weight (lbs.)
1,000	MCL1/2	2-Leg Model	24
1,500	MCL3/4	**3-Leg Model** (2-legs @ 18", 1-leg @ 30" with chain shortener)	26







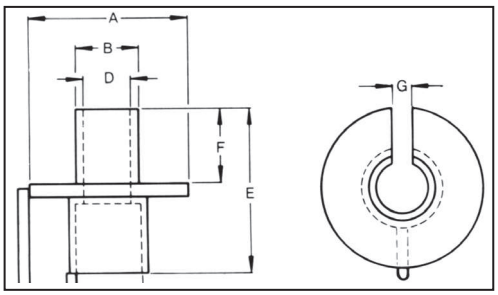




TEA CUP PIPE CARRIER (TC)

Features

- Efficiently handles concrete water and sewer pipes.
- Three sizes available to lift up to 18 tons.
- Standard hand grip for ease of installation.
- Optional spoon handle (for model TC66 only) to assist Tea Cup placement in small diameter pipes.



Model TC66

Rated Capacity (tons)	Part Number	Dimensions (in.)							Weight (lbs.)
		A	B	C	D	E	F	G	
6.6	TC66**	5.56	2.00	2.13	1.13	4.75	1.75	1.13	9
13	TC130	6.00	2.50	2.63	1.38	5.75	1.75	1.38	12
18	TC180	8.00	3.00	3.25	1.63	7.75	2.75	1.63	22

****Tea Cup Spoon Handle (TCSH)**

- Use with model TC66 only.
- Includes bolt-on lip.
- Length: 61.1".

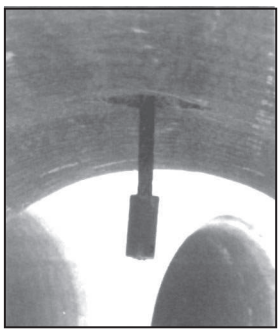
Tea Cup Sling (TCS)

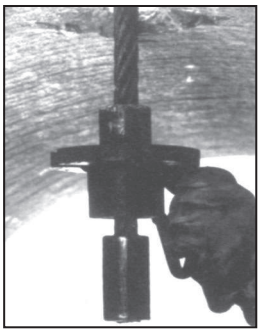
For use with Tea Cup Carriers
5-ft. standard length

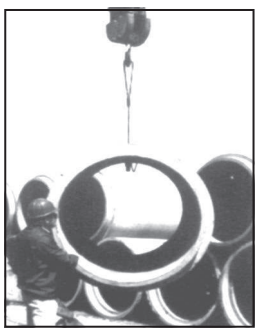
Rated Capacity (tons)	Part Number	Sling Diameter (in.)	For Use With	Weight (lbs.)
4.9	TCS34	3/4	TC66	9
6.6	TCS78	7/8		14
8.5	TCS1	1	TC130	19
10	TCS118	1-1/8		26
13	TCS114	1-1/4		33
18	TCS112	1-1/2	TC180	52

OPERATION

1. Drop Tea Cup Sling through hole in pipe.
2. Align and insert Tea Cup Pipe Carrier onto sling.
3. Lift pipe.





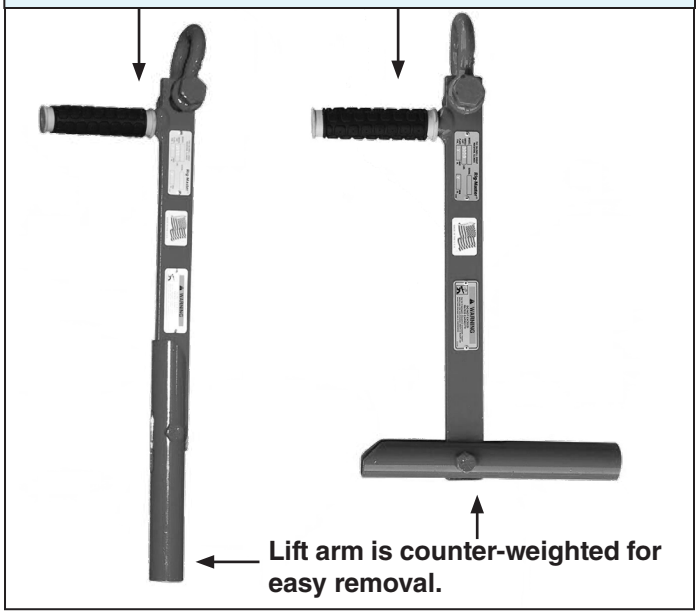


PIPE PICK (PP)

For concrete pipe only

Rated Capacity (lbs.)	Part Number	Minimum Pipe ID (in.)	Dimensions (in.)								Weight (lbs.)
			A	B	C	T	D	E	F	G	
3,000	CPP1.5	12	0.62	1.62	2.37	0.62	1.50	23.00	10.50	16.25	10
6,000	CPP3	14	0.75	1.93	2.93	0.75	1.75	27.62	12.00	20.00	18
10,000	CPP5	16	1.00	2.75	3.00	1.00	2.25	43.50	13.00	36.00	38

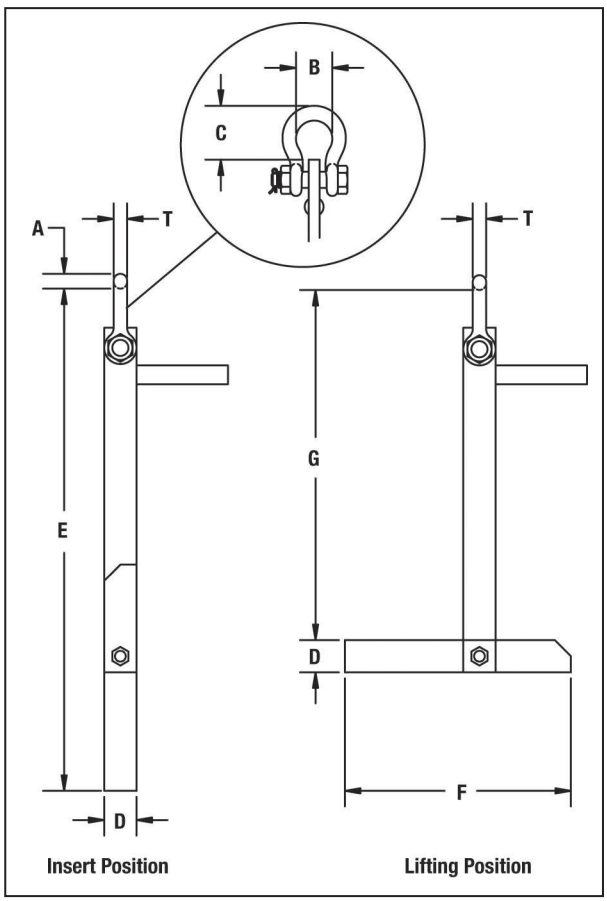
Tilt Handle for Easy Positioning



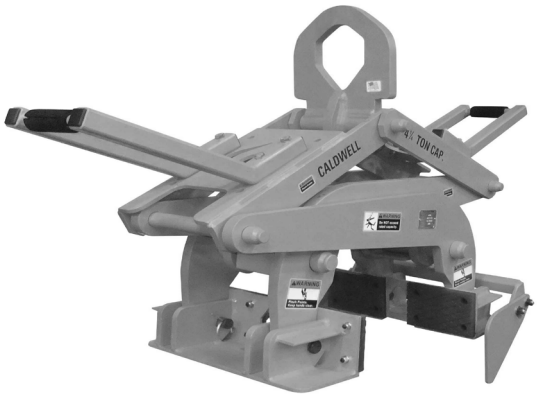
Lift arm is counter-weighted for easy removal.

Features

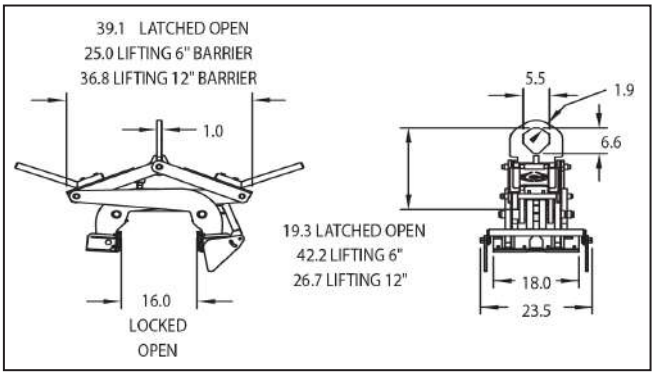
- Simple and fast.
- No need to reach inside the pipe.
- Worker remains above the pipe at all times.
- Use to easily join length of pipe.



BARRIER LIFTING GRAB (BRG74)



Rated Capacity (lbs.)	Part Number	Weight (lbs.)
With Polyurethane Lifting Pads		
8,500	BRG74-4.25	602
14,500	BRG74-7.25	652
With Steel Dog Point Lifting Pads		
8,500	BRG74-4.25DP	602
14,500	BRG74-7.25DP	652

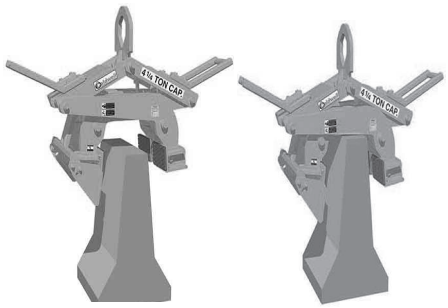


Features

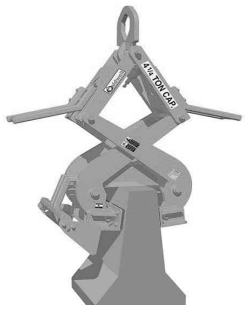
- Compact and rugged design.
- Grabs concrete barriers from 6”–12” nominal width at the top of barrier.
- Stainless steel auto-latch designed to ensure proper alignment.
- Locating assembly orients tong on barrier without operator intervention and will pivot when grab is set on the ground.
- Gripping pads pivot to conform with the load.
- Replaceable polyurethane pads protect barrier.
- Alloy steel dog point pads bite into painted barrier surfaces (typical in coastal areas).
- Centering guide cut out on grab shoe helps to properly center tong over barrier for a level lift.
- Extended handles on each side keep operator away from load and can be adjusted as needed.
- Lifting eye allows for easy hook attachment, self-centers rigging, and will accommodate a fork.

OPERATION

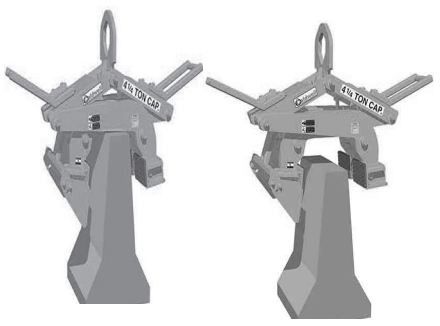
Place tong on barrier, lower crane completely to disengage the auto-latch.



Lift and position barrier in desired location.



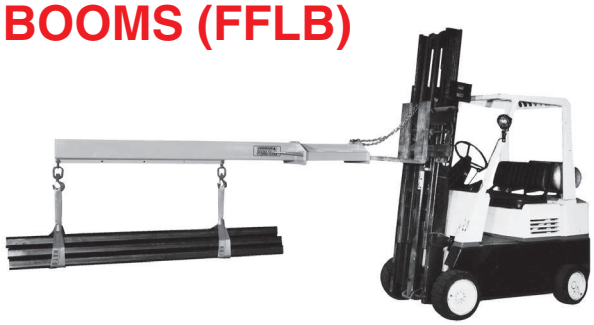
Lower crane (line must go slack to engage auto-latch), lift tong off barrier and repeat!



FIXED FORK LIFT BOOMS (FFLB)

Features

- Fixed length beam design.
- Restraining chain with grab hook.



Part Number	Max. Capacity (lbs.)	Headroom (in.)	Maximum Capacity at Hook Position (lbs.)					Weight (lbs.)
			4'	5'	6'	7'	8'	
FFLB-15	1500	7.00	-	-	-	-	1,500	185
FFLB-40	4000	6.30	4,000	3,500	3,000	2,500	2,000	200

FFLB-15 Single Pick Point

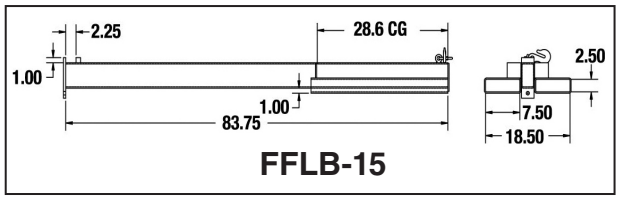
- Use with 1" or 2" wide web sling.
- Optional swivel hook available.

FFLB-40 Multiple Pick Points

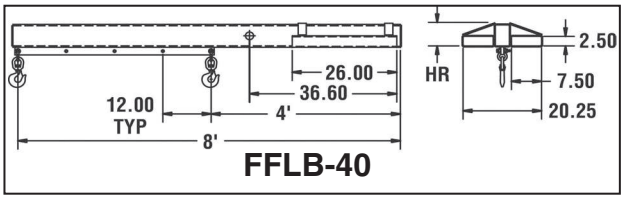
- Five hook positions at 1-ft. intervals.
- Fixed or swivel hooks available.

Fixed Hook

Swivel Hook



FFLB-15



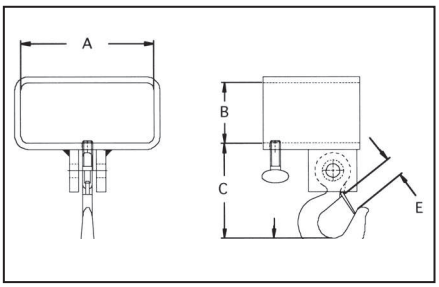
FFLB-40

SINGLE FORK HOOK (SFH)

Fixed Hook

Features

- Easy attachment - no tools required.
- Welded construction for durability.
- Promotes versatility of forklift trucks.
- 3,000-lb. rated capacity.



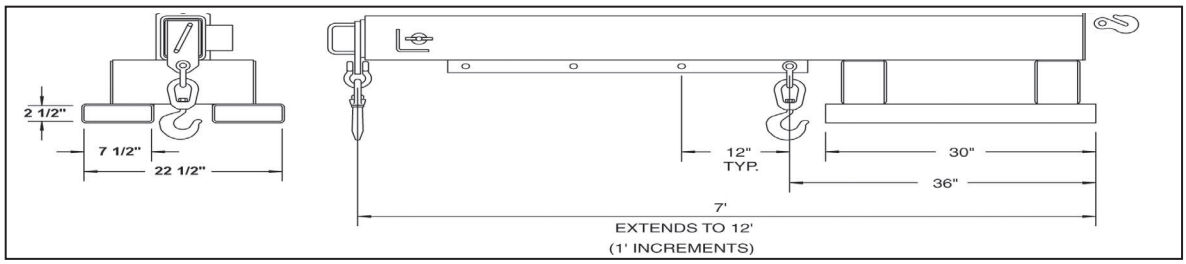
Swivel Hook

Fixed Hook Part Number	Swivel Hook Part Number	Dimensions (in.)						Weight (lbs.)
		A	B	C (Fixed)	C (Swivel)	D	E	
SFHF4	SFHS4	4.50	2.50	4.69	6.56	1	1	7
SFHF5	SFHS5	5.50	2.50	4.69	6.56	1	1	8
SFHF6	SFHS6	6.50	2.50	4.69	6.56	1	1	9

TELESCOPING FORKLIFT BOOMS (TFLB)

Features

- Telescoping boom for versatility.
- T-Pin locks boom into position.
- Handle on end for easy extension of boom.
- Swivel hooks with latch standard.
- Restraining chain with grab hook standard.
- 12-ft maximum horizontal reach.

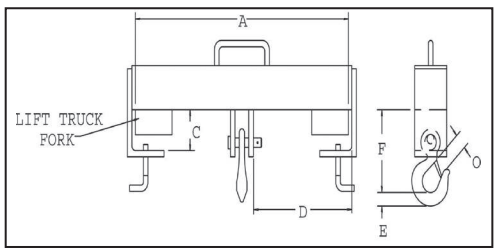


Part Number	Maximum Capacity at Hook Position (lbs.)							Weight (lbs.)
	3' - 6'	7'	8'	9'	10'	11'	12'	
TFLB30	3,000	3,000	2,600	2,200	1,900	1,600	1,500	340
TFLB40	4,000	3,200	2,600	2,200	1,900	1,600	1,500	340
TFLB60	6,000	5,000	4,200	3,500	3,000	2,700	2,500	390
TFLB80	8,000	7,000	5,700	4,800	4,100	2,600	3,100	520

DOUBLE FORK BEAMS (DFB)

Features

- Easy attachment - No tools required.
- Welded construction for durability.
- Promotes versatility of forklift trucks.



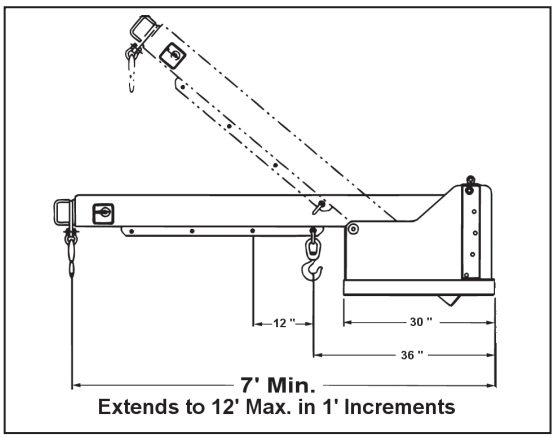
Fixed Hook Part Number	Swivel Hook Part Number	Rated Capacity (lbs.)	Dimension (in.)							Weight (lbs.)
			A	C	D	F (Fixed)	F (Swivel)	E	O	
DFBF4X20	**DFBS4X20**	4,000	20	3.25	9.125	7.25	8.88	1.13	1.16	21
DFBF10X24	**DFBS10X24**	10,000	24	3.25	10.75	9.25	11.44	1.19	1.69	42
DFBF10X36	**DFBS10X36**	10,000	36	3.25	16.75	9.25	11.44	1.19	1.69	80
DFBF15X36	**DFBS15X36**	15,000	36	4.25	16.25	13.75	15.75	2.25	2.22	166
DFBF20X36	**DFBS20X36**	20,000	36	4.25	16.00	14.63	16.44	2.59	2.41	180
DFBF30X36	**DFBS30X36**	30,000	36	4.25	15.88	14.50	16.31	2.59	2.41	210

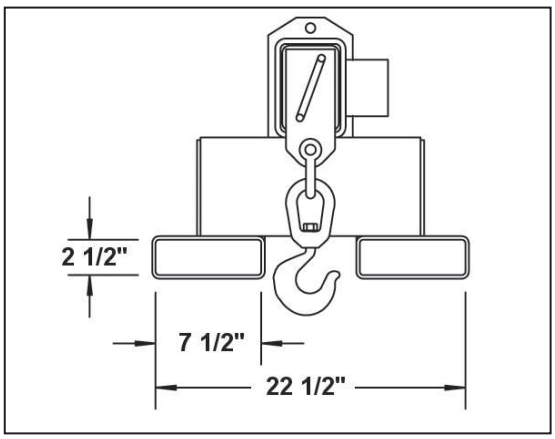
PIVOTING FORKLIFT BOOMS (PFLB)

Features

- Vertical adjustability in five increments up to a maximum of 40°.
- Telescoping boom for versatility.
- T-Pin locks boom into position.
- Handle on end for easy extension of boom.
- Swivel hooks with latch are standard.
- Restraining chain with grab hook standard reach.
- Vertical pivoting boom to 6' 4" height.

Part Number	Maximum Capacity at Hook Position (lbs.)							Weight (lbs.)
	3'- 6'	7'	8'	9'	10'	11'	12'	
PFLB30	3,000	3,000	2,600	2,200	1,900	1,600	1,500	350
PFLB40	4,000	3,200	2,600	2,200	1,900	1,600	1,500	350
PFLB60	6,000	5,000	4,200	3,500	3,000	2,700	2,500	420
PFLB80	8,000	7,000	5,700	4,800	4,100	3,600	3,100	540

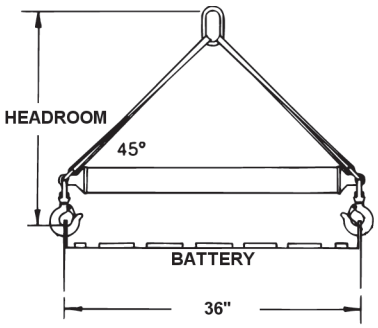




FIBERGLASS BATTERY LIFTING BEAM (BLB)

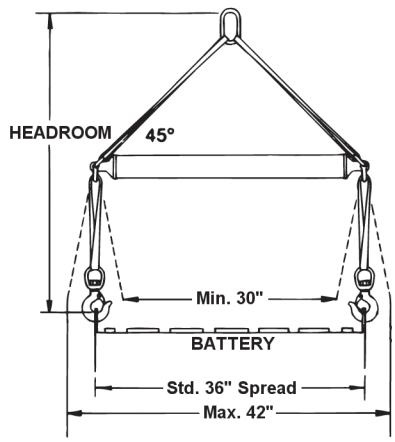
Features

- Non-conductive fiberglass beam construction.
- Up to 70% lighter than other beams.
- Heavy duty capacities of 4,800 lbs. and 7,000 lbs.
- Acid resistant, coated polyester straps and hooks.
- 36" standard spread - custom lengths available.
- Swivel hooks standard.



Fixed Length (BLBF)

Rated Capacity (lbs.)	Part Number*	Oblong Size Dia. • B • C (in.)	Headroom (in.)	Weight (lbs.)
4,800	BLB48F	0.63 • 3.00 • 6.00	29	16
7,000	BLB70F	0.75 • 2.75 • 5.50	30	20



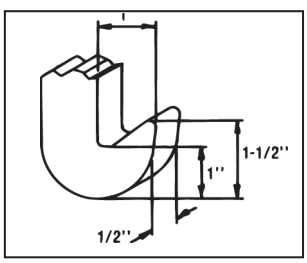
Adjustable (BLBA)

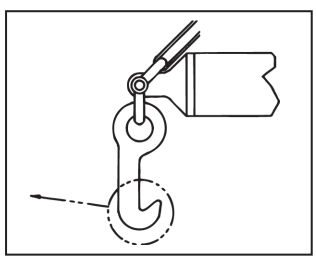
Rated Capacity (lbs.)	Part Number*	Oblong Size Dia. • B • C (in.)	Headroom (in.)	Weight (lbs.)
4,800	BLB48A	0.63 • 3.00 • 6.00	39	17
7,000	BLB70A	0.75 • 2.75 • 5.50	40.5	20

*Add a “J” to part number for optional J-Hooks.
Note: Maximum spread range is 12".

Optional J Hooks

Available in place of swivel hooks

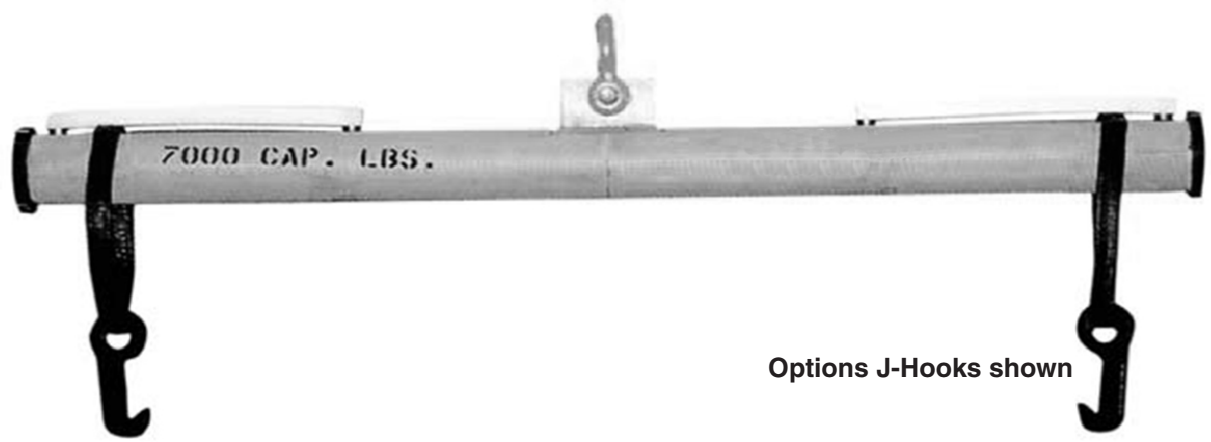




BATTERY LIFTING BEAM (BLBLHA)
LOW HEADROOM - ADJUSTABLE

Features

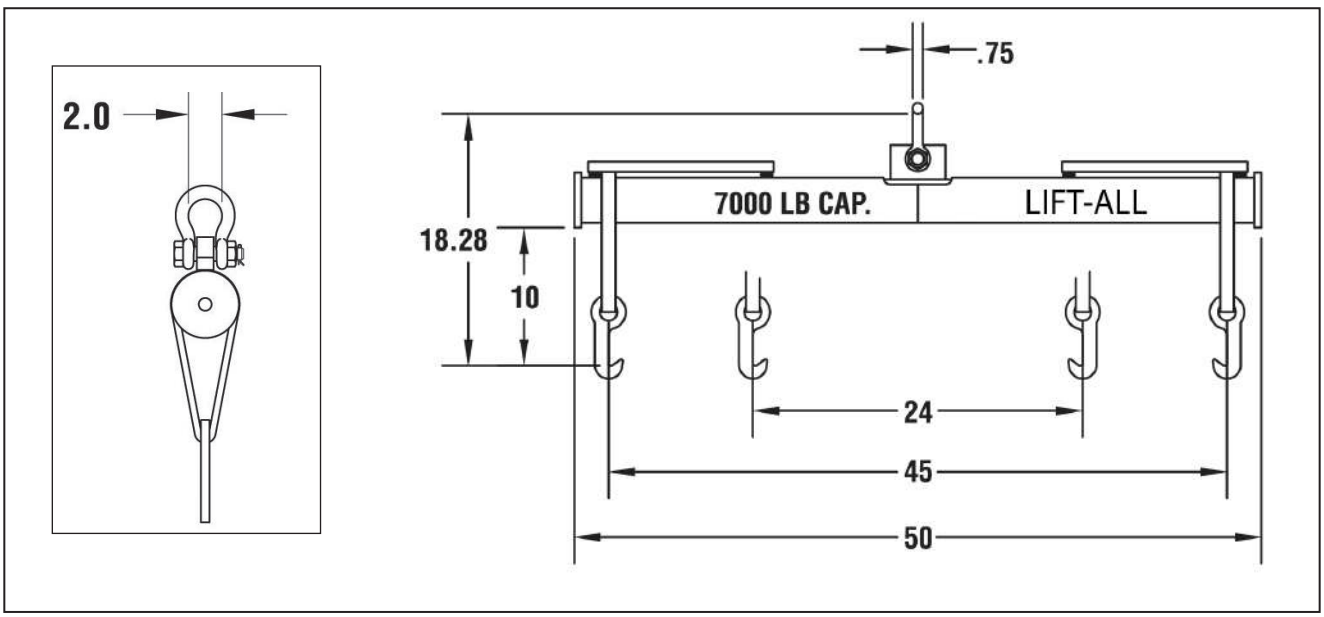
- Low Headroom, 18.28".
- Adjustable to handle batteries of different lengths.
- Non-conductive beam.
- Acid-resistant, coated polyester straps.
- Swivel hooks standard.
- J-Hooks available.



Options J-Hooks shown

Rated Capacity (lbs.)	Part Number	Standard Spread (in.)	Weight (lbs.)
7,000	BLBLHA	45	110

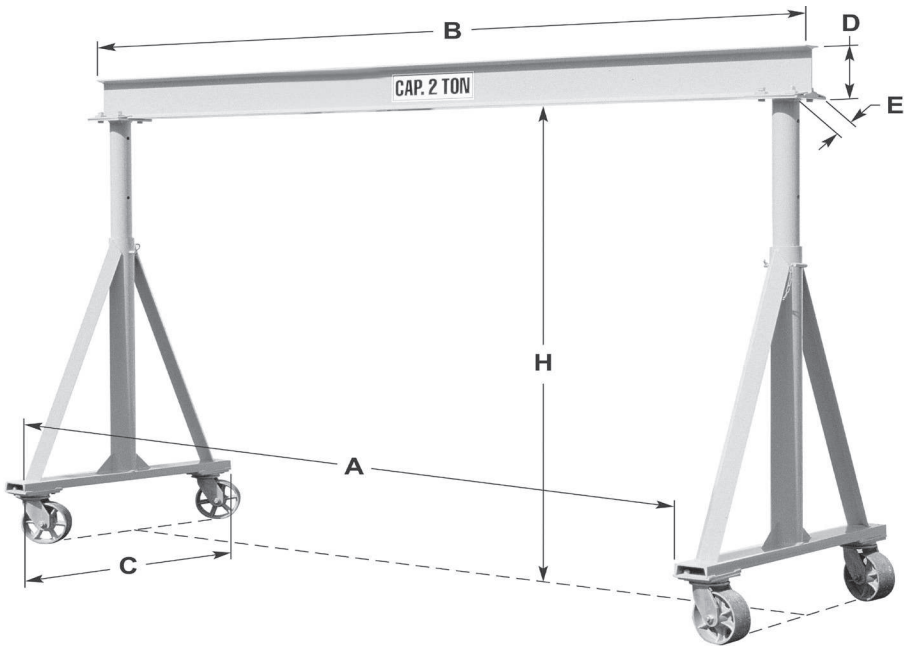
Standard swivel hook shown



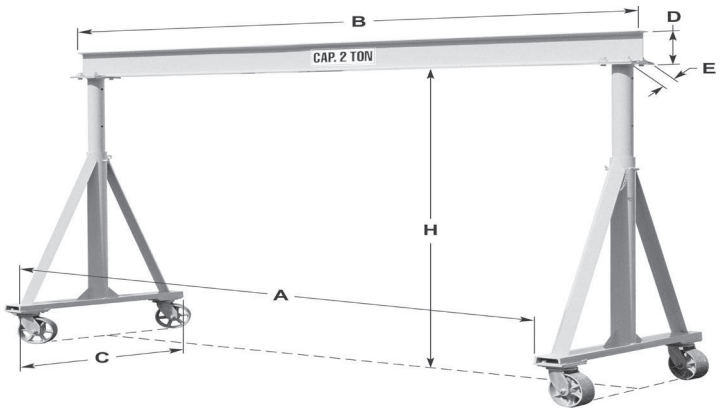
FIXED HEIGHT STEEL (H90)

Features

Balanced design allows for easy rolling, even under load.
Simple bolt together construction.
Includes four steel swivel casters.
Easy set-up and maintenance.
Adjustable span from 10’ to 16’.



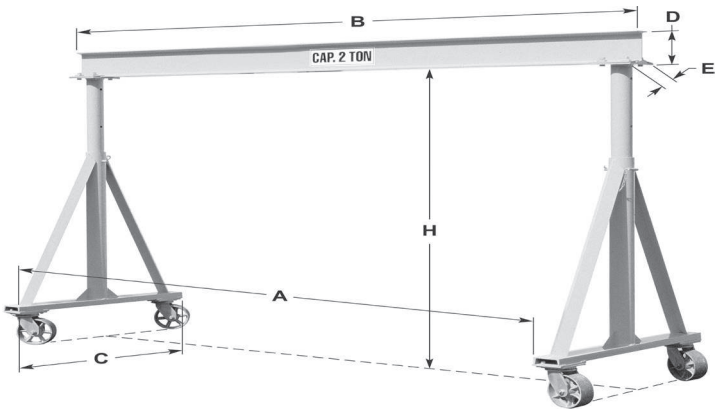
Rated Capacity	Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Weight (lbs.)	Part Number
1-Ton	10’	10	10'-4"	11'-6"	5'-6"	6	3.33	6	825	H90-1-10/10
		12	12'-4"	13'-6"	5'-6"	8	4.00	6	930	H90-1-10/12
		14	14'-4"	15'-6"	5'-6"	8	4.00	6	967	H90-1-10/14
		16	16'-4"	17'-6"	5'-6"	6	4.66	6	1136	H90-1-10/16
	12	10	10'-4"	11'-6"	6'-6"	6	3.33	6	913	H90-1-12/10
		12	12'-4"	13'-6"	6'-6"	8	4.00	6	1018	H90-1-12/12
		14	14'-4"	15'-6"	6'-6"	8	4.00	6	1055	H90-1-12/14
		16	16'-4"	17'-6"	6'-6"	10	4.66	6	1224	H90-1-12/16
	14’	10	10'-4"	11'-6"	7'-6"	6	3.33	6	977	H90-1-14/10
		12	12'-4"	13'-6"	7'-6"	8	4.00	6	1082	H90-1-14/12
		14	14'-4"	15'-6"	7'-6"	8	4.00	6	1119	H90-1-14/14
		16	16'-4"	17'-6"	7'-6"	10	4.66	6	1288	H90-1-14/16
	16’	10	10'-4"	11'-6"	7'-6"	6	3.33	6	1081	H90-1-16/10
		12	12'-4"	13'-6"	7'-6"	8	4.00	6	1186	H90-1-16/12
		14	14'-4"	15'-6"	7'-6"	8	4.00	6	1223	H90-1-16/14
		16	16'-4"	17'-6"	7'-6"	10	4.66	6	1392	H90-1-16/16



FIXED HEIGHT STEEL (H90)

(continued)

Rated Capacity	Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Weight (lbs.)	Part Number
2-Ton	10’	10	10'-4"	11'-6"	5'-6"	8	4.00	8	949	H90-2-10/10
		12	12'-4"	13'-6"	5'-6"	8	4.00	8	986	H90-2-10/12
		14	14'-4"	15'-6"	5'-6"	10	4.66	8	1131	H90-2-10/14
		16	16'-4"	17'-6"	5'-6"	10	4.66	8	1182	H90-2-10/16
	12’	10	10'-4"	11'-6"	6'-6"	8	4.00	8	1041	H90-2-12/10
		12	12'-4"	13'-6"	6'-6"	8	4.00	8	1078	H90-2-12/12
		14	14'-4"	15'-6"	6'-6"	10	4.66	8	1223	H90-2-12/14
		16	16'-4"	17'-6"	6'-6"	10	4.66	8	1274	H90-2-12/16
	14’	10	10'-4"	11'-6"	7'-6"	8	4.00	8	1101	H90-2-14/10
		12	12'-4"	13'-6"	7'-6"	8	4.00	8	1138	H90-2-14/12
		14	14'-4"	15'-6"	7'-6"	10	4.66	8	1283	H90-2-14/14
		16	16'-4"	17'-6"	7'-6"	10	4.66	8	1334	H90-2-14/16
	16’	10	10'-4"	11'-6"	7'-6"	8	4.00	8	1205	H90-2-16/10
		12	12'-4"	13'-6"	7'-6"	8	4.00	8	1242	H90-2-16/12
		14	14'-4"	15'-6"	7'-6"	10	4.66	8	1387	H90-2-16/14
		16	16'-4"	17'-6"	7'-6"	10	4.66	8	1438	H90-2-16/16
3-Ton	10’	10	9'-3"	11'-6"	5'-6"	10	4.66	8	1107	H90-3-10/10
		12	11'-3"	13'-6"	5'-6"	10	4.66	8	1157	H90-3-10/12
		14	13'-3"	15'-6"	5'-6"	10	4.66	8	1208	H90-3-10/14
		16	15'-3"	17'-6"	5'-6"	12	5.00	8	1427	H90-3-10/16
	12’	10	9'-3"	11'-6"	6'-6"	10	4.66	8	1229	H90-3-12/10
		12	11'-3"	13'-6"	6'-6"	10	4.66	8	1279	H90-3-12/12
		14	13'-3"	15'-6"	6'-6"	10	4.66	8	1330	H90-3-12/14
		16	15'-3"	17'-6"	6'-6"	12	5.00	8	1529	H90-3-12/16
	14’	10	9'-3"	11'-6"	7'-6"	10	4.66	8	1350	H90-3-14/10
		12	11'-3"	13'-6"	7'-6"	10	4.66	8	1400	H90-3-14/12
		14	13'-3"	15'-6"	7'-6"	10	4.66	8	1451	H90-3-14/14
		16	15'-3"	17'-6"	7'-6"	12	5.00	8	1670	H90-3-14/16
	16’	10	9'-3"	11'-6"	7'-6"	10	4.66	8	1473	H90-3-16/10
		12	11'-3"	13'-6"	7'-6"	10	4.66	8	1523	H90-3-16/12
		14	13'-3"	15'-6"	7'-6"	10	4.66	8	1574	H90-3-16/14
		16	15'-3"	17'-6"	7'-6"	12	5.00	8	1793	H90-3-16/16

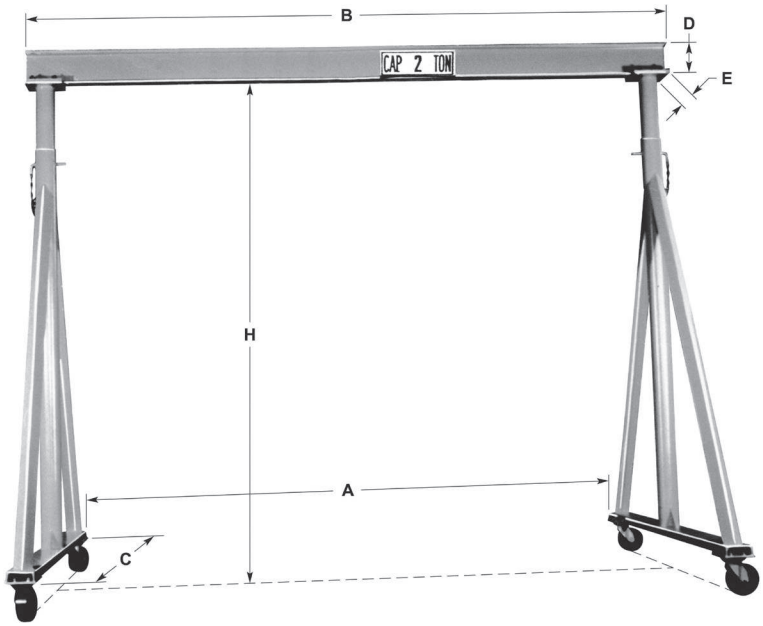


FIXED HEIGHT STEEL (H90)

(continued)

Rated Capacity	Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Weight (lbs.)	Part Number
4-Ton	10’	10	9'-3"	11'-6"	5'-6"	10	5.5	8	1217	H90-4-10/10
		12	11'-3"	13'-6"	5'-6"	12	5.5	8	1877	H90-4-10/12
		14	13'-3"	15'-6"	5'-6"	12	5.5	8	1357	H90-4-10/14
		16	15'-3"	17'-6"	5'-6"	15	5.5	8	1812	H90-4-10/16
	12’	10	9'-3"	11'-6"	6'-6"	10	5.5	8	1339	H90-4-12/10
		12	11'-3"	13'-6"	6'-6"	12	5.5	8	1409	H90-4-12/12
		14	13'-3"	15'-6"	6'-6"	12	5.5	8	1479	H90-4-12/14
		16	15'-3"	17'-6"	6'-6"	15	5.5	8	1934	H90-4-12/16
	14’	10	9'-3"	11'-6"	7'-6"	10	5.5	8	1460	H90-4-14/10
		12	11'-3"	13'-6"	7'-6"	12	5.5	8	1530	H90-4-14/12
		14	13'-3"	15'-6"	7'-6"	12	5.5	8	1600	H90-4-14/14
		16	15'-3"	17'-6"	7'-6"	15	5.5	8	2055	H90-4-14/16
	16’	10	9'-3"	11'-6"	7'-6"	10	5.5	8	1583	H90-4-16/10
		12	11'-3"	13'-6"	7'-6"	12	5.5	8	1653	H90-4-16/12
		14	13'-3"	15'-6"	7'-6"	12	5.5	8	1723	H90-4-16/14
		16	15'-3"	17'-6"	7'-6"	15	5.5	8	2178	H90-4-16/16
5-Ton	10’	10	9'-3"	11'-6"	5'-6"	12	5.0	8	1397	H90-5-10/10
		12	11'-3"	13'-6"	5'-6"	12	5.0	8	1467	H90-5-10/12
		14	13'-3"	15'-6"	5'-6"	15	5.5	8	1537	H90-5-10/14
		16	15'-3"	17'-6"	5'-6"	15	5.5	8	1992	H90-5-10/16
	12’	10	9'-3"	11'-6"	6'-6"	12	5.0	8	1519	H90-5-12/10
		12	11'-3"	13'-6"	6'-6"	12	5.0	8	1589	H90-5-12/12
		14	13'-3"	15'-6"	6'-6"	15	5.5	8	1659	H90-5-12/14
		16	15'-3"	17'-6"	6'-6"	15	5.5	8	2114	H90-5-12/16
	14’	10	9'-3"	11'-6"	7'-6"	12	5.0	8	1640	H90-5-14/10
		12	11'-3"	13'-6"	7'-6"	12	5.0	8	1710	H90-5-14/12
		14	13'-3"	15'-6"	7'-6"	15	5.5	8	1780	H90-5-14/14
		16	15'-3"	17'-6"	7'-6"	15	5.5	8	2235	H90-5-14/16
	16’	10	9'-3"	11'-6"	7'-6"	12	5.0	8	1763	H90-5-16/10
		12	11'-3"	13'-6"	7'-6"	12	5.0	8	1833	H90-5-16/12
		14	13'-3"	15'-6"	7'-6"	15	5.5	8	1903	H90-5-16/14
		16	15'-3"	17'-6"	7'-6"	15	5.5	8	2358	H90-5-16/16

ADJUSTABLE HEIGHT STEEL (K90)

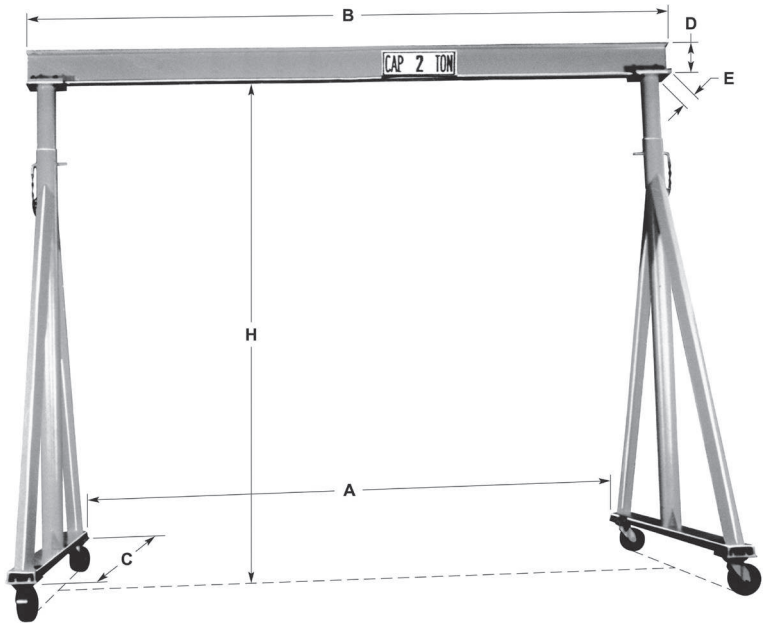


Features

- Balanced design allows for easy rolling, even under load.
- Simple bolt together construction.
- Includes four steel swivel casters.
- Easy set-up and maintenance.
- Height adjustable down from maximum in one foot increments.
- Adjustable span standard.

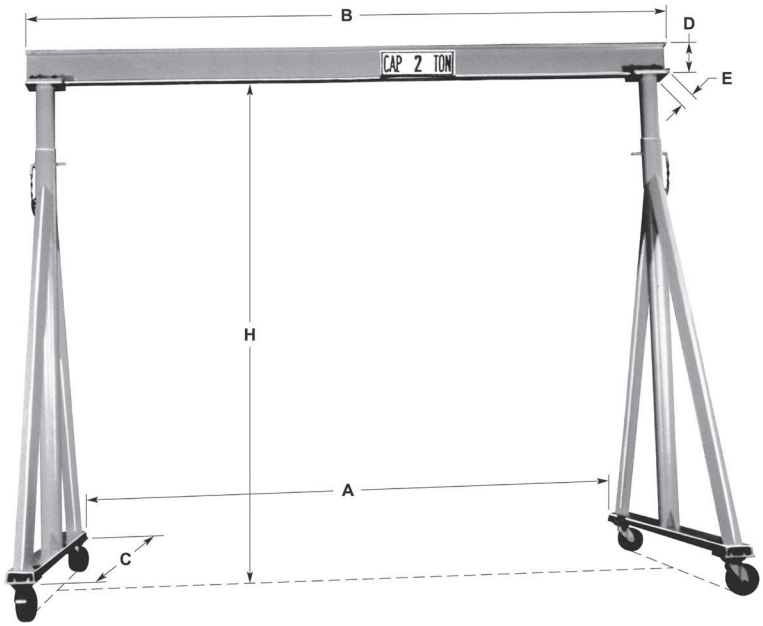
Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Min. Height Under Beam H (ft.)	Weight (lbs.)	Part Number
1-Ton	7’	10	10’-5”	11'-6"	4'-0"	6	3.33	6	5’-0”	550	**K90-1-7/10**
		12	12’-5”	13'-6"	4'-0"	8	4.00	6	5’-0”	650	**K90-1-7/12**
		14	14’-5”	15'-6"	4'-0"	8	4.00	6	5’-0”	675	**K90-1-7/14**
		16	16’-5”	17'-6"	4'-0"	10	4.70	6	5’-0”	850	**K90-1-7/16**
	9’	10	10'-5"	11'-6"	5'-0"	6	3.33	6	6’-0"	625	**K90-1-9/10**
		12	12'-5"	13'-6"	5'-0"	8	4.00	6	6’-0”	725	**K90-1-9/12**
		14	14'-5"	15'-6"	5'-0"	8	4.00	6	6’-0”	750	**K90-1-9/14**
		16	16'-5"	17'-6"	5'-0"	10	4.70	6	6’-0”	925	**K90-1-9/16**
	10’	10	10’-5”	11'-6"	5'-6"	6	3.33	6	7’-0"	650	**K90-1-10/10**
		12	12’-5”	13'-6"	5'-6"	8	4.00	6	7’-0”	750	**K90-1-10/12**
		14	14’-5”	15'-6"	5'-6"	8	4.00	6	7’-0”	800	**K90-1-10/14**
		16	16’-5”	17'-6"	5'-6"	10	4.70	6	7’-0”	950	**K90-1-10/16**
	12’	10	10’-5”	11'-6"	6'-6"	6	3.33	6	8’-0"	750	**K90-1-12/10**
		12	12’-5”	13'-6"	6'-6"	8	4.00	6	8’-0”	850	**K90-1-12/12**
		14	14’-5”	15'-6"	6'-6"	8	4.00	6	8’-0”	900	**K90-1-12/14**
		16	16’-5”	17'-6"	6'-6"	10	4.70	6	8’-0”	1050	**K90-1-12/16**
	14’	10	10’-5”	11'-6"	7'-6"	6	3.33	6	9’-0"	800	**K90-1-14/10**
		12	12’-5”	13'-6"	7'-6"	8	4.00	6	9’-0”	900	**K90-1-14/12**
		14	14’-5”	15'-6"	7'-6"	8	4.00	6	9’-0”	950	**K90-1-14/14**
		16	16’-5”	17'-6"	7'-6"	10	4.70	6	9’-0”	1100	**K90-1-14/16**
	16’	10	10’-5”	11'-6"	7'-6"	6	3.33	6	10’-0"	850	**K90-1-16/10**
		12	12’-5”	13'-6"	7'-6"	8	4.00	6	10’-0”	950	**K90-1-16/12**
		14	14’-5”	15'-6"	7'-6"	8	4.00	6	10’-0”	1000	**K90-1-16/14**
		16	16’-5”	17'-6"	7'-6"	10	4.70	6	10’-0”	1150	**K90-1-16/16**

ADJUSTABLE HEIGHT STEEL (K90) (continued)



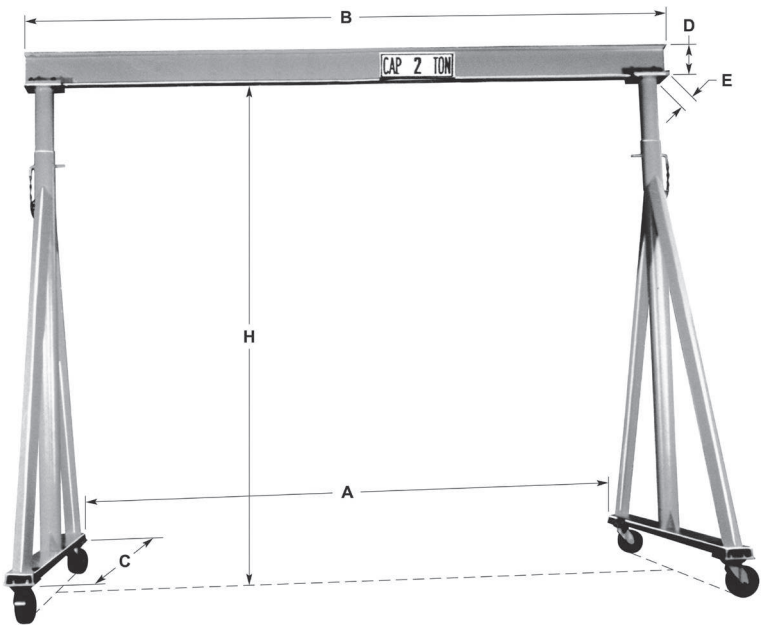
Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Min. Height Under Beam H (ft.)	Weight (lbs.)	Part Number
2-Ton	7’	10	10’-5”	11'-6"	4'-0"	8	4.00	8	5’-2”	675	**K90-2-7/10**
		12	12’-5”	13'-6"	4'-0"	8	4.00	8	5’-2”	700	**K90-2-7/12**
		14	14’-5”	15'-6"	4'-0"	10	4.70	8	5’-2”	850	**K90-2-7/14**
		16	16’-5”	17'-6"	4'-0"	10	4.70	8	5’-2”	900	**K90-2-7/16**
	9’	10	10'-5"	11'-6"	5'-0"	8	4.00	8	6’-2”	750	**K90-2-9/10**
		12	12'-5"	13'-6"	5'-0"	8	4.00	8	6’-2”	800	**K90-2-9/12**
		14	14'-5"	15'-6"	5'-0"	10	4.70	8	6’-2”	925	**K90-2-9/14**
		16	16'-5"	17'-6"	5'-0"	10	4.70	8	6’-2”	975	**K90-2-9/16**
	10’	10	10’-5”	11'-6"	5'-6"	8	4.00	8	7'-2"	775	**K90-2-10/10**
		12	12’-5”	13'-6"	5'-6"	8	4.00	8	7’-2”	825	**K90-2-10/12**
		14	14’-5”	15'-6"	5'-6"	10	4.70	8	7’-2”	975	**K90-2-10/14**
		16	16’-5”	17'-6"	5'-6"	10	4.70	8	7’-2”	1025	**K90-2-10/16**
	12’	10	10'-5"	11'-6"	6'-6"	8	4.00	8	8'-2"	875	**K90-2-12/10**
		12	12'-5"	13'-6"	6'-6"	8	4.00	8	8’-2”	900	**K90-2-12/12**
		14	14'-5"	15'-6"	6'-6"	10	4.70	8	8’-2”	1050	**K90-2-12/14**
		16	16'-5"	17'-6"	6'-6"	10	4.70	8	8’-2”	1100	**K90-2-12/16**
	14’	10	10’-5”	11'-6"	7'-6"	8	4.00	8	9'-2"	950	**K90-2-14/10**
		12	12’-5”	13'-6"	7'-6"	8	4.00	8	9’-2”	975	**K90-2-14/12**
		14	14’-5”	15'-6"	7'-6"	10	4.70	8	9’-2”	1125	**K90-2-14/14**
		16	16’-5”	17'-6"	7'-6"	10	4.70	8	9’-2”	1175	**K90-2-14/16**
	16’	10	10'-5"	11'-6"	7'-6"	8	4.00	8	10'-2"	1000	**K90-2-16/10**
		12	12'-5"	13'-6"	7'-6"	8	4.00	8	10’-2”	1025	**K90-2-16/12**
		14	14'-5"	15'-6"	7'-6"	10	4.70	8	10’-2”	1175	**K90-2-16/14**
		16	16'-5"	17'-6"	7'-6"	10	4.70	8	10’-2”	1225	**K90-2-16/16**

ADJUSTABLE HEIGHT STEEL (K90) (continued)



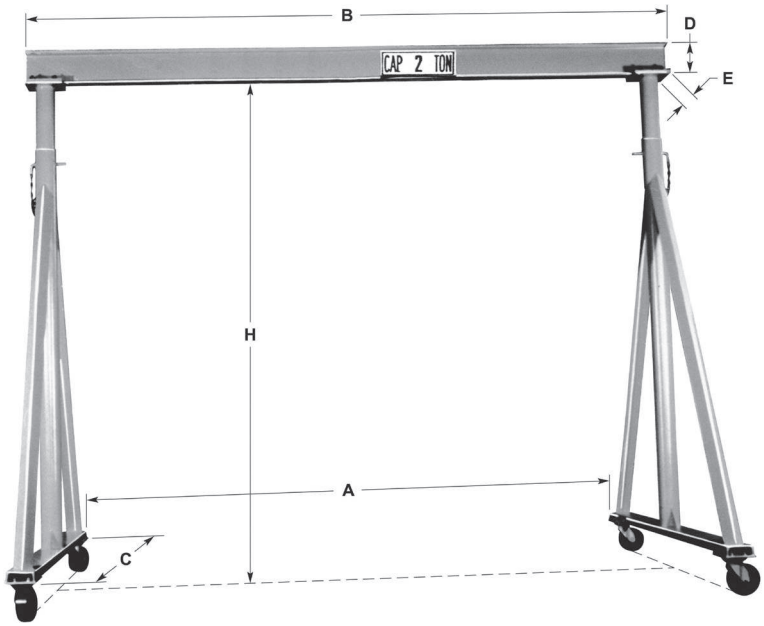
Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Min. Height Under Beam H (ft.)	Weight (lbs.)	Part Number
3-Ton	7’	10	9’-5”	11'-6"	4'-0"	10	4.70	8	5’-0”	1000	**K90-3-7/10**
		12	11’-5”	13'-6"	4'-0"	10	4.70	8	5’-0”	1050	**K90-3-7/12**
		14	13’-5”	15'-6"	4'-0"	10	4.70	8	5’-0”	1100	**K90-3-7/14**
		16	15’-5”	17'-6"	4'-0"	12	5.00	8	5’-0”	1250	**K90-3-7/16**
	9’	10	9'-5"	11'-6"	5'-0"	10	4.70	8	6’-0”	1100	**K90-3-9/10**
		12	11'-5"	13'-6"	5'-0"	10	4.70	8	6’-0”	1175	**K90-3-9/12**
		14	13'-5"	15'-6"	5'-0"	10	4.70	8	6’-0”	1225	**K90-3-9/14**
		16	15'-5"	17'-6"	5'-0"	12	5.00	8	6’-0”	1375	**K90-3-9/16**
	10’	10	9’-5”	11'-6"	5'-6"	10	4.70	8	7’-0”	1175	**K90-3-10/10**
		12	1-’-5”	13'-6"	5'-6"	10	4.70	8	7’-0”	1200	**K90-3-10/12**
		14	13’-5”	15'-6"	5'-6"	10	4.70	8	7’-0”	1275	**K90-3-10/14**
		16	15’-5”	17'-6"	5'-6"	12	5.00	8	7’-0”	1425	**K90-3-10/16**
	12’	10	9'-5"	11'-6"	6'-6"	10	4.70	8	8’-0”	1300	**K90-3-12/10**
		12	11'-5"	13'-6"	6'-6"	10	4.70	8	8’-0”	1375	**K90-3-12/12**
		14	13'-5"	15'-6"	6'-6"	10	4.70	8	8’-0”	1400	**K90-3-12/14**
		16	15'-5"	17'-6"	6'-6"	12	5.00	8	8’-0”	1575	**K90-3-12/16**
	14’	10	9’-5”	11'-6"	7'-6"	10	4.70	8	9’-0”	1400	**K90-3-14/10**
		12	11’-5”	13'-6"	7'-6"	10	4.70	8	9’-0”	1475	**K90-3-14/12**
		14	13’-5”	15'-6"	7'-6"	10	4.70	8	9’-0”	1525	**K90-3-14/14**
		16	15’-5”	17'-6"	7'-6"	12	5.00	8	9’-0”	1675	**K90-3-14/16**
	16’	10	9'-5"	11'-6"	7'-6"	10	4.70	8	10'-0"	1500	**K90-3-16/10**
		12	11'-5"	13'-6"	7'-6"	10	4.70	8	10’-0”	1550	**K90-3-16/12**
		14	13'-5"	15'-6"	7'-6"	10	4.70	8	10’-0”	1600	**K90-3-16/14**
		16	15'-5"	17'-6"	7'-6"	12	5.00	8	10’-0”	1750	**K90-3-16/16**

ADJUSTABLE HEIGHT STEEL (K90) (continued)



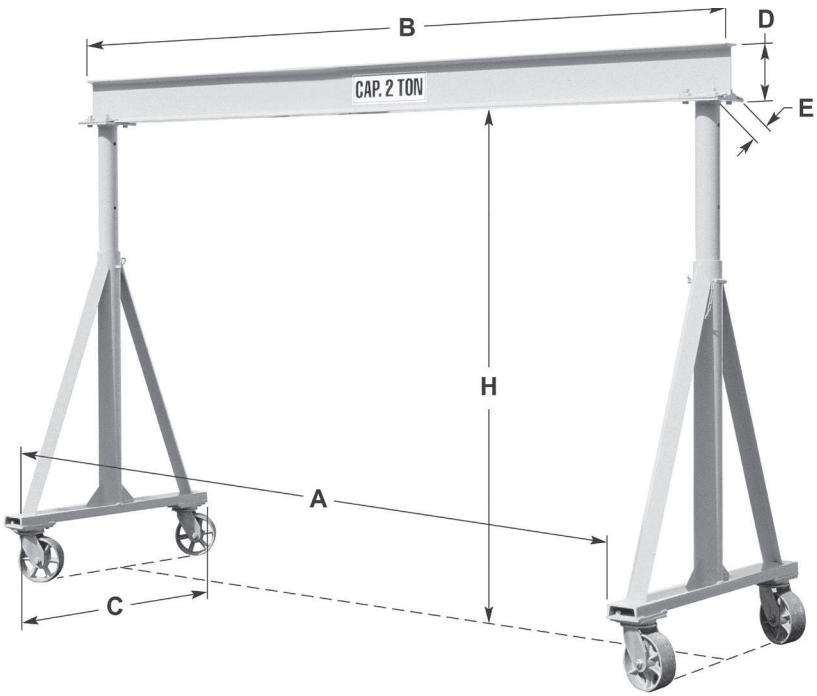
Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Min. Height Under Beam H (ft.)	Weight (lbs.)	Part Number
4-Ton	7’	10	9’-5”	11'-6"	4’-0”	10	4.70	8	5’-0”	975	**K90-4-7/10**
		12	11’-5”	13'-6"	4’-0”	12	5.00	8	5’-0”	1125	**K90-4-7/12**
		14	13’-5”	15'-6"	4’-0”	12	5.00	8	5’-0”	1200	**K90-4-7/14**
		16	15’-5”	17'-6"	4’-0”	15	5.50	8	5’-0”	1450	**K90-4-7/16**
	9’	10	9’-5”	11'-6"	5’-0"	10	4.70	8	6’-0"	1125	**K90-4-9/10**
		12	11’-5”	13'-6"	5’-0"	12	5.00	8	6’-0”	1250	**K90-4-9/12**
		14	13’-5”	15'-6"	5’-0"	12	5.00	8	6’-0”	1325	**K90-4-9/14**
		16	15’-5”	17'-6"	5’-0"	15	5.50	8	6’-0”	1575	**K90-4-9/16**
	10’	10	9’-5”	11'-6"	5'-6"	10	4.70	8	7’-0"	1175	**K90-4-10/10**
		12	11’-5”	13'-6"	5'-6"	12	5.00	8	7’-0”	1300	**K90-4-10/12**
		14	13’-5”	15'-6"	5'-6"	12	5.00	8	7’-0”	1375	**K90-4-10/14**
		16	15’-5”	17'-6"	5'-6"	15	5.50	8	7’-0”	1625	**K90-4-10/16**
	12’	10	9’-5”	11'-6"	6'-6"	10	4.70	8	8’-0"	1325	**K90-4-12/10**
		12	11’-5”	13'-6"	6'-6"	12	5.00	8	8’-0”	1450	**K90-4-12/12**
		14	13’-5”	15'-6"	6'-6"	12	5.00	8	8’-0”	1525	**K90-4-12/14**
		16	15’-5”	17'-6"	6'-6"	15	5.50	8	8’-0”	1775	**K90-4-12/16**
	14’	10	9’-5”	11'-6"	7'-6"	10	4.70	8	9’-0"	1425	**K90-4-14/10**
		12	11’-5”	13'-6"	7'-6"	12	5.00	8	9’-0”	1550	**K90-4-14/12**
		14	13’-5”	15'-6"	7'-6"	12	5.00	8	9’-0”	1625	**K90-4-14/14**
		16	15’-5”	17'-6"	7'-6"	15	5.50	8	9’-0”	1875	**K90-4-14/16**
	16’	10	9’-5”	11'-6"	7'-6"	10	4.70	8	10’-0"	1500	**K90-4-16/10**
		12	11’-5”	13'-6"	7'-6"	12	5.00	8	10’-0”	1625	**K90-4-16/12**
		14	13’-5”	15'-6"	7'-6"	12	5.00	8	10’-0”	1700	**K90-4-16/14**
		16	15’-5”	17'-6"	7'-6"	15	5.50	8	10’-0”	1975	**K90-4-16/16**

ADJUSTABLE HEIGHT STEEL (K90) (continued)



Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Min. Height Under Beam H (ft.)	Weight (lbs.)	Part Number
5-Ton	7’	10	9’-5”	11'-6"	4’-0”	12	5.00	8	5’-1”	1175	K90-5-7/10
		12	11’-5”	13'-6"	4’-0”	12	5.00	8	5’-1”	1225	K90-5-7/12
		14	13’-5”	15'-6"	4’-0”	15	5.50	8	5’-1”	1475	K90-5-7/14
		16	15’-5”	17'-6"	4’-0”	15	5.50	8	5’-1”	1550	K90-5-7/16
	9’	10	9'-5"	11'-6"	5’-0”	12	5.00	8	6’-1”	1325	K90-5-9/10
		12	11'-5"	13'-6"	5’-0”	12	5.00	8	6’-1”	1375	K90-5-9/12
		14	13'-5"	15'-6"	5’-0”	15	5.50	8	6’-1”	1625	K90-5-9/14
		16	15'-5"	17'-6"	5’-0”	15	5.50	8	6’-1”	1700	K90-5-9/16
	10’	10	9’-5”	11'-6"	5'-6"	12	5.00	8	7’-1"	1375	K90-5-10/10
		12	11’-5”	13'-6"	5'-6"	12	5.00	8	7’-1”	1425	K90-5-10/12
		14	13’-5”	15'-6"	5'-6"	15	5.50	8	7’-1”	1675	K90-5-10/14
		16	15’-5”	17'-6"	5'-6"	15	5.50	8	7’-1”	1750	K90-5-10/16
	12’	10	9'-5"	11'-6"	6'-6"	12	5.00	8	8’-1"	1550	K90-5-12/10
		12	11'-5"	13'-6"	6'-6"	12	5.00	8	8’-1”	1600	K90-5-12/12
		14	13'-5"	15'-6"	6'-6"	15	5.50	8	8’-1”	1825	K90-5-12/14
		16	15'-5"	17'-6"	6'-6"	15	5.50	8	8’-1”	1925	K90-5-12/16
	14’	10	9’-5”	11'-6"	7'-6"	12	5.00	8	9’-1"	1650	K90-5-14/10
		12	11’-5”	13'-6"	7'-6"	12	5.00	8	9’-1"	1725	K90-5-14/12
		14	13’-5”	15'-6"	7'-6"	15	5.50	8	9’-1"	1950	K90-5-14/14
		16	15’-5”	17'-6"	7'-6"	15	5.50	8	9’-1"	2050	K90-5-14/16
	16’	10	9'-5"	11'-6"	7'-6"	12	5.00	8	10'-1"	1725	K90-5-16/10
		12	11'-5"	13'-6"	7'-6"	12	5.00	8	10'-1"	1800	K90-5-16/12
		14	13'-5"	15'-6"	7'-6"	15	5.50	8	10'-1"	2025	K90-5-16/14
		16	15'-5"	17'-6"	7'-6"	15	5.50	8	10'-1"	2125	K90-5-16/16

FIXED ALUMINUM (HA90)

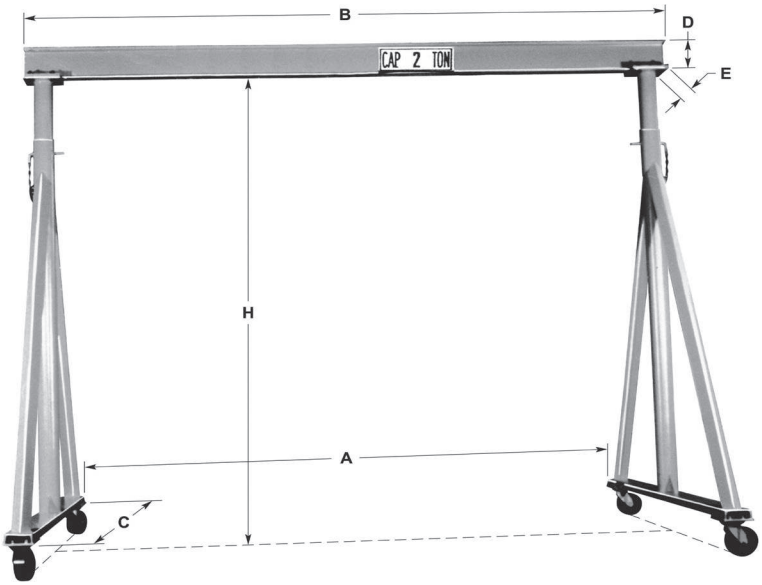


Features

- Lightweight aluminum construction.
- Balanced design allows for easy rolling under load.
- Simple bolt together construction.
- Includes four poly coated swivel casters.
- Easy setup and maintenance.

Rated Capacity	Max. Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Weight lbs.)	Part Number
1-Ton	7'-6"	6	6'-10"	8'-4"	4'	6	3.33	6	212	HA90-1-7/6
		9	9'-0"	10'-6"	4'	8	4.00	6	238	HA90-1-7/9
		11	11'-0"	12'-6"	4'	8	4.00	6	251	HA90-1-7/11
	9'-2"	6	6'-10"	8'-4"	5'	6	3.33	6	234	HA90-1-9/6
		9	9'-0"	10'-6"	5'	8	4.00	6	260	HA90-1-9/9
		11	11'-0"	12'-6"	5'	8	4.00	6	273	HA90-1-9/11
	10'-10"	6	6'-10"	8' 4"	6'	6	3.33	6	258	HA90-1-10/6
		9	9'-0"	10' 6"	6'	8	4.00	6	284	HA90-1-10/9
		11	11'-0"	12' 6"	6'	8	4.00	6	297	HA90-1-10/11
2-Ton	7'-6"	6	6'-4"	8' 4"	4'	8	4.00	8	351	HA90-2-7/6
		8	8'-6"	10' 6"	4'	10	4.66	8	408	HA90-2-7/8
		10	10'-6"	12' 6"	4'	10	4.66	8	429	HA90-2-7/10
	9'-2"	6	6'-4"	8'-4"	5'	8	4.00	8	371	HA90-2-9/6
		8	8'-6"	10'-6"	5'	10	4.66	8	428	HA90-2-9/8
		10	10'-6"	12'-6"	5'	10	4.66	8	449	HA90-2-9/10
	10'-10"	6	6'-4"	8'-4"	6'	8	4.00	8	401	HA90-2-10/6
		8	8'-6"	10'-6"	6'	10	4.66	8	458	HA90-2-10/8
		10	10'-6"	12'-6"	6'	10	4.66	8	479	HA90-2-10/10

ADJUSTABLE ALUMINUM (KA90)

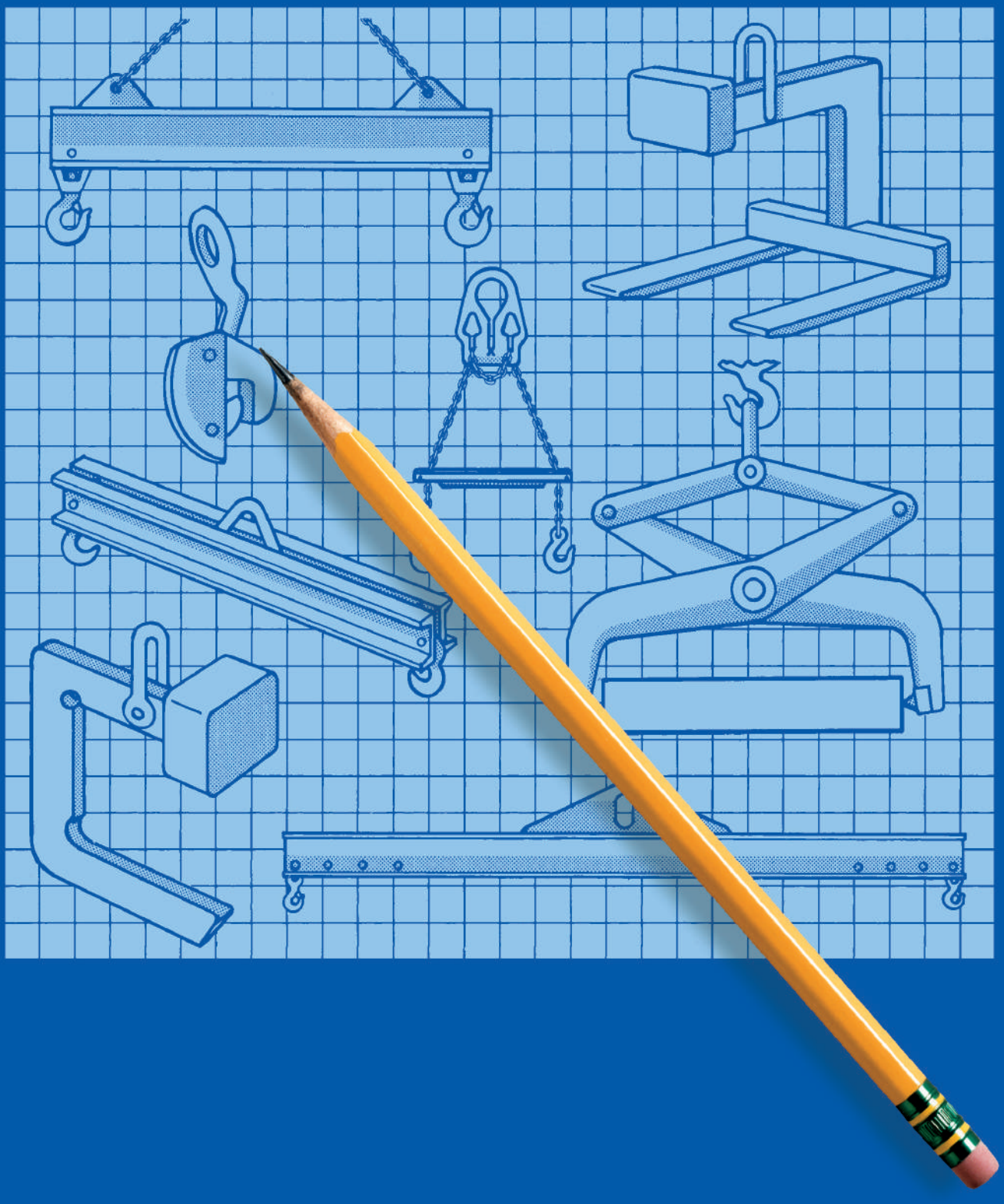


Features

- Lightweight aluminum construction. .
- Balanced design allows for easy rolling under load.
- Simple bolt together construction.
- Includes four poly coated swivel casters.
- Easy setup and maintenance.
- Height adjustable in 6” increments.

Rated Capacity	Min/Max Height Under Beam H	Nominal Span (ft.)	Inside Span A	Overall Length B	Support Width C	Beam Height D (in.)	Flange Width E (in.)	Caster Diameter (in.)	Weight (lbs.)	Part Number
1-Ton	5'-6" min. 7’-6” max.	6	6'-7"	8'-4"	4'-0”	6	3.44	6	350	**KA90-1-7/6**
		8	8'-9"	10'-6"	4'-0”	8	4.00	6	375	**KA90-1-7/8**
		10	10'-9"	12'-6"	4'-0”	8	4.00	6	390	**KA90-1-7/10**
	6'-2" min. 9’-2” max.	6	6'-7"	8'-4"	5'-0”	6	3.44	6	360	**KA90-1-9/6**
		8	8'-9"	10'-6"	5'-0”	8	4.00	6	385	**KA90-1-9/8**
		10	10'-9"	12'-6"	5'-0”	8	4.00	6	400	**KA90-1-9/10**
	7'-10" min. 10’-10” max.	6	6'-7"	8'-4"	6'-0”	6	3.44	6	385	**KA90-1-10/6**
		8	8'-9"	10'-6"	6’-0”	8	4.00	6	410	**KA90-1-10/8**
		10	10'-9"	12'-6"	6’-0”	8	4.00	6	425	**KA90-1-10/10**
	9'-6" min. 12’-6” max.	6	6'-7"	8'-4"	6'-6"	6	3.44	6	415	**KA90-1-12/6**
		8	8'-9"	10'-6"	6'-6"	8	4.00	6	440	**KA90-1-12/8**
		10	10'-9"	12'-6"	6'-6"	8	4.00	6	455	**KA90-1-12/10**
2-Ton	5'-6" min. 7’-6” max.	6	6'-0”	8'-4"	4’-0”	8	4.00	8	460	**KA90-2-7/6**
		8	8'-2"	10'-6"	4’-0”	10	4.66	8	500	**KA90-2-7/8**
		10	10'-6"	12'-6"	4’-0”	10	4.66	8	525	**KA90-2-7/10**
	6'-2" min. 9’-2” max.	6	6'-0”	8'-4"	5’-0”	8	4.00	8	485	**KA90-2-9/6**
		8	8'-2"	10'-6"	5’-0”	10	4.66	8	525	**KA90-2-9/8**
		10	10'-6"	12'-6"	5’-0”	10	4.66	8	550	**KA90-2-9/10**
	7'-10" min. 10’-10” max.	6	6'-0”	8'-4"	6’-0”	8	4.00	8	520	**KA90-2-10/6**
		8	8'-2"	10'-6"	6’-0”	10	4.66	8	560	**KA90-2-10/8**
		10	10'-6"	12'-6"	6’-0”	10	4.66	8	585	**KA90-2-10/10**
	9'-6" min. 12’-6” max.	6	6'-0”	8'-2"	6'-6"	8	4.00	8	530	**KA90-2-12/6**
		8	8'-2"	10'-6"	6'-6"	10	4.66	8	570	**KA90-2-12/8**
		10	10'-6"	12'-6"	6'-6"	10	4.66	8	595	**KA90-2-12/10**

Custom Engineered Devices



BASIC INFORMATION

Lift-All Company can provide a unique engineered device for your production requirements. Our custom devices range from large capacity beams to small S-Hooks or J-Hooks.

Features and Benefits

- Specifically designed equipment for the ultimate in safety.
- All equipment conforms to highest engineering standards and meets or exceeds government and industry regulations (ASME B30.20).
- Helps eliminate employee fatigue - raises morale and quality of work.
- Productivity improves through efficiency when using properly designed lifting devices.
- Equipment can be designed to prevent costly load damage.
- Rugged materials and construction provide long useful life.

Inspection Criteria for Lifting Devices

Visually inspect lifting device and slings prior to each lift. Have competent person record inspection a minimum of once a year. Follow all warnings and care/use instructions supplied with the device. Check the following and correct before use:

- Structural deformation, cracks, excessive wear.
- Loose or missing guards, fasteners, covers, stops or name plates.
- Inoperable mechanisms including automatic hold or release devices.
- Loose bolts or fasteners.
- Cracked or worn gears, pulleys, sheaves, sprockets, bearings and chains.
- Excessive wear of friction pads, linkage or other mechanical parts.
- Excessive wear of hoist hooking points and load support clevises or pins.

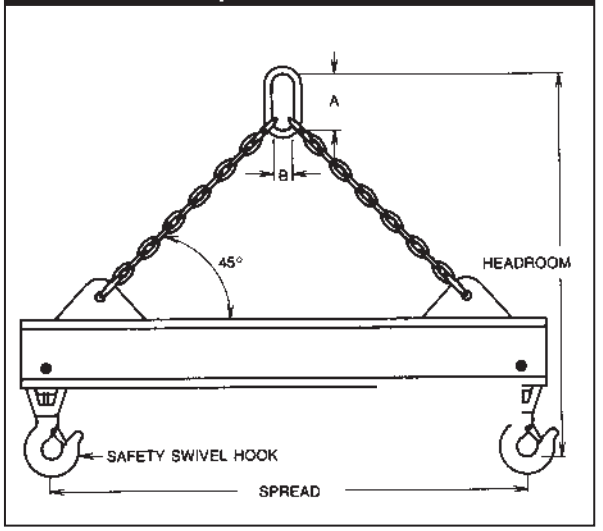
Safe Operating Practices

- Use only per ASME B30.20.
- Check name plate to assure proper lifting capacity.
- Perform a test load a sufficient distance to assure that the load is supported properly by the lifter and then inspect lifter for defects and deformation.
- Instruct the operator in correct lifting practices including proper storage, load distribution, use of associated slings, temperature considerations, avoidance of obstructions, acceleration, side pulls and angle of lift. Read HELP section of this catalog.
- Never lift over people and never ride the load.
- For proper use of slings with lifting devices refer to ASME B30.9 and appropriate section of this catalog.

How to Order

1. Review and understand the HELP section in this catalog.
2. Copy appropriate drawing from the following pages or download from our website www.*lift-all*.com under **Products/Lifting Devices/Custom Lifting Devices.**
3. Enter the information and fax to 717-898-1215, or scan and email to: customerservice@lift-all.com. For assistance call us at 800-909-1964.
4. Our engineering drawing will be sent to you for approval and purchase order.

Spreader Beam



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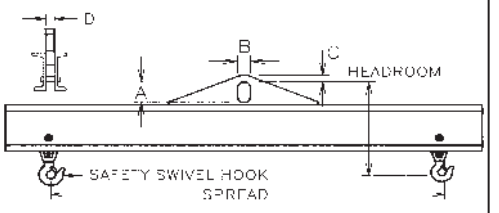
PRODUCTS FOR BETTER LIFTING

Low Headroom lifting Beam



Required Information

Opening required for Overhead Hook:

A (Height) _____

B (Width) _____

C (Max.) _____

Capacity Required _____

Spread _____

Headroom _____

D (**Options**) _____

Is load center of gravity centered between other pick points? **Yes** ☐ **No** ☐

If no, specify location in reference to pick points (attach a diagram if necessary):_____

_____

If adjustable beam required, list quantity and spread for any additional pairs of holes, pins and hooks.

_____

_____

_____

_____

NOTE: Custom Engineered Products are Non-Returnable.

Quotation Needed By: _____
Date

Date _____From _____
Person Requesting Quote

Distributor _____

Address _____

City _____ State _____Zip _____

Phone_____Email _____

Drawing Number: _____

Name and Phone Number

Purchase Order Number

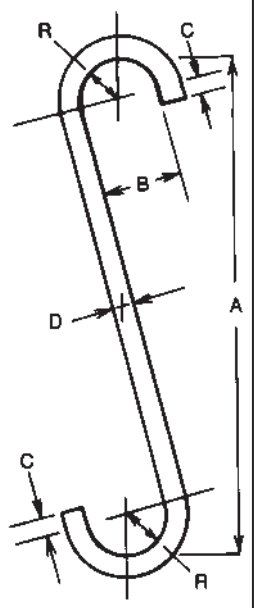
Signature Date

Custom Engineered Products are Non-Returnable

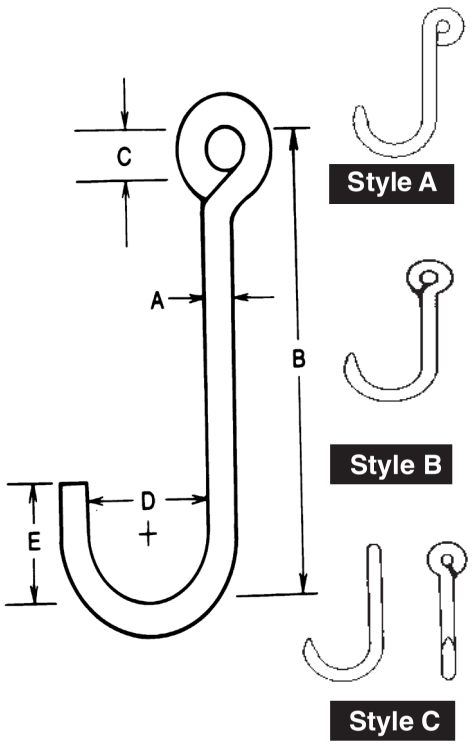
Custom Engineered Products are Non-Returnable

Custom Engineered Products are Non-Returnable

Alloy S-Hook



Alloy J-Hook



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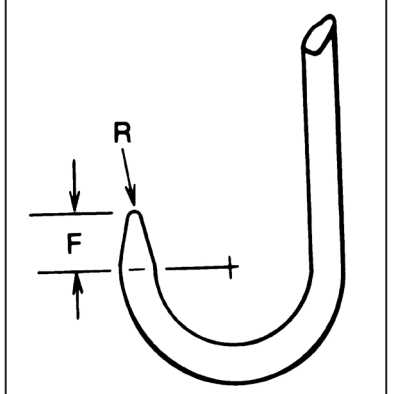
J-Hook TIP



Required Information

S-HOOK

Material Diameter _____

Rated Capacity _____

Chain Size: _____

A _____ B _____

C _____ D _____

R (Radius) _____

J-HOOK

Style: Circle One A B C

Tip: Flat-Tapered _____

Rated Capacity _____

Chain Size: _____

A _____ B _____

C _____ D _____

E _____ F _____

R (Tip Radius) _____ _____

Special Instructions:

_____

_____

Quotation Needed By: _____
Date

Date _____ From _____
Person Requesting Quote

Distributor _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Drawing Number: _____

Name and Phone Number

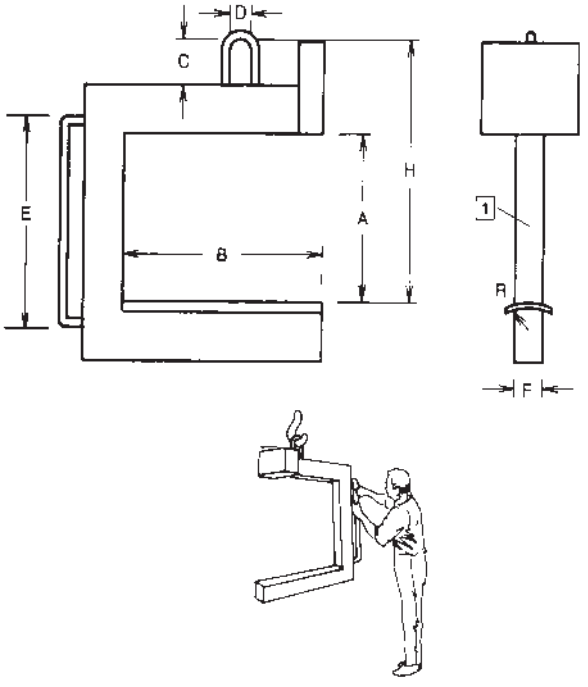
Purchase Order Number

Signature Date

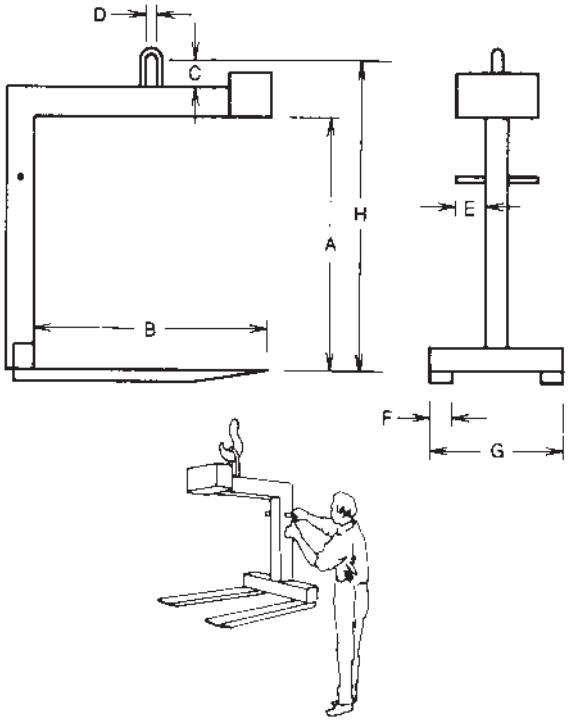
Custom Engineered Products are Non-Returnable

LiftAll® PRODUCTS FOR BETTER LIFTING

STANDARD COIL LIFTER



STANDARD PALLET LIFTER



Required Information

Style Requested _____

Capacity _____

Minimum Coil I.D. _____

Maximum Coil O.D. _____

Maximum Coil Width _____

Size of Overhead Hook (Cap.) _____

A _____

B _____

C (Minimum) _____

D (Minimum) _____

E _____

F (**Options**) _____

G _____

H (**Options**) _____

R (**Options**)

Back Stop Pad Yes No

Special Instructions: _____

Quotation Needed By: _____
Date

Date _____ From _____
Person Requesting Quote

Distributor _____

Address _____

City _____ State _____ Zip _____

Phone _____ Email _____

Drawing Number: _____

Name and Phone Number

Purchase Order Number

Signature Date

Custom Engineered Products are Non-Returnable

Custom Engineered Products are Non-Returnable

Conversion Tables

Metric / Imperial Conversion					
	Millimeter mm	Centimeter cm	Meter m	Kilometer km	Feet ft
1 mm	1	0.1	0.001	0.000001	**0.00328**
1 cm	10	1	0.01	0.00001	**0.03281**
1 m	**1,000**	**100**	**1**	**0.001**	**3.28084**
1 km	1,000,000	100,000	1,000	1	**3280.84**
1 in	25.4	2.54	0.0254	0.00003	**0.08333**
1 ft	**304.8**	**30.48**	**0.3048**	**0.0003**	**1**

Weights of Various Materials and Liquids									
Pounds / cu. ft.						Pounds / sq. ft.		Pounds / gal.	
Aluminum	165	**Earth - Dry**	75	**Rubber**	94	**Steel Plate**		Gasoline	6.2
Asphalt	81	**Earth - Wet**	100	**Sand - Dry**	105	**1/8”**	5	Diesel	7.0
Brass	524	**Gasoline**	45	**Sand - Wet**	120	**1/4”**	10	**Water**	8.3
Brick	120	**Glass**	162	**Steel**	490	**1/2”**	20		
Bronze	534	**Iron Casting**	470	**Water**	63	**1”**	40		
Cement - Loose	95	**Lead**	708	**Zinc**	437	**Aluminum Plate**			
Cement - Set	183	**Lumber - Fir**	32			**1/8”**	1.75		
Coal	56	**Lumber - Oak**	62			**1/4”**	3.50		
Concrete	150	**Lumber - RR Ties**	50			**Lumber**			
Crushed Rock	95	**Oil, Motor**	58			**3/4” Fir**	2		
Diesel	52	**Paper**	60			**3/4” Oak**	4		

Decimal Equivalents							
Fraction	Inches	Inches (rounded)	Millimeters	Fraction	Inches	Inches (rounded)	Millimeters
1/32	.0312	0.03	0.80	**17/32**	.5312	0.53	13.49
1/16	.0625	0.06	1.59	**9/16**	.5625	0.56	14.29
3/32	.0937	0.09	2.38	**19/32**	.5937	0.59	15.08
1/8	**.125**	**0.13**	**3.18**	**5/8**	**.625**	**0.63**	**15.88**
5/32	.1562	0.16	3.97	**21/32**	.6562	0.66	16.67
3/16	.1875	0.19	4.76	**11/16**	.6875	0.69	17.46
7/32	.2187	0.22	5.56	**23/32**	.7187	0.72	18.26
1/4	**.250**	**0.25**	**6.35**	**3/4**	**.750**	**0.75**	**19.05**
9/32	.2812	0.28	7.14	**25/32**	.7812	0.78	19.84
5/16	.3125	0.31	7.94	**13/16**	.8125	0.81	20.64
11/32	.3437	0.34	8.73	**27/32**	.8437	0.84	21.43
3/8	**.375**	**0.38**	**9.53**	**7/8**	**.875**	**0.88**	**22.23**
13/32	.4062	0.41	10.32	**29/32**	.9062	0.91	23.02
7/16	.4375	0.44	11.11	**15/16**	.9375	0.94	23.81
15/32	.4687	0.47	11.91	**31/32**	.9687	0.97	24.61
1/2	**0.50**	**0.50**	**12.70**	**1.0**	**1.0**	**1.00**	**25.40**

LiftAll®

PRODUCTS FOR BETTER LIFTING

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