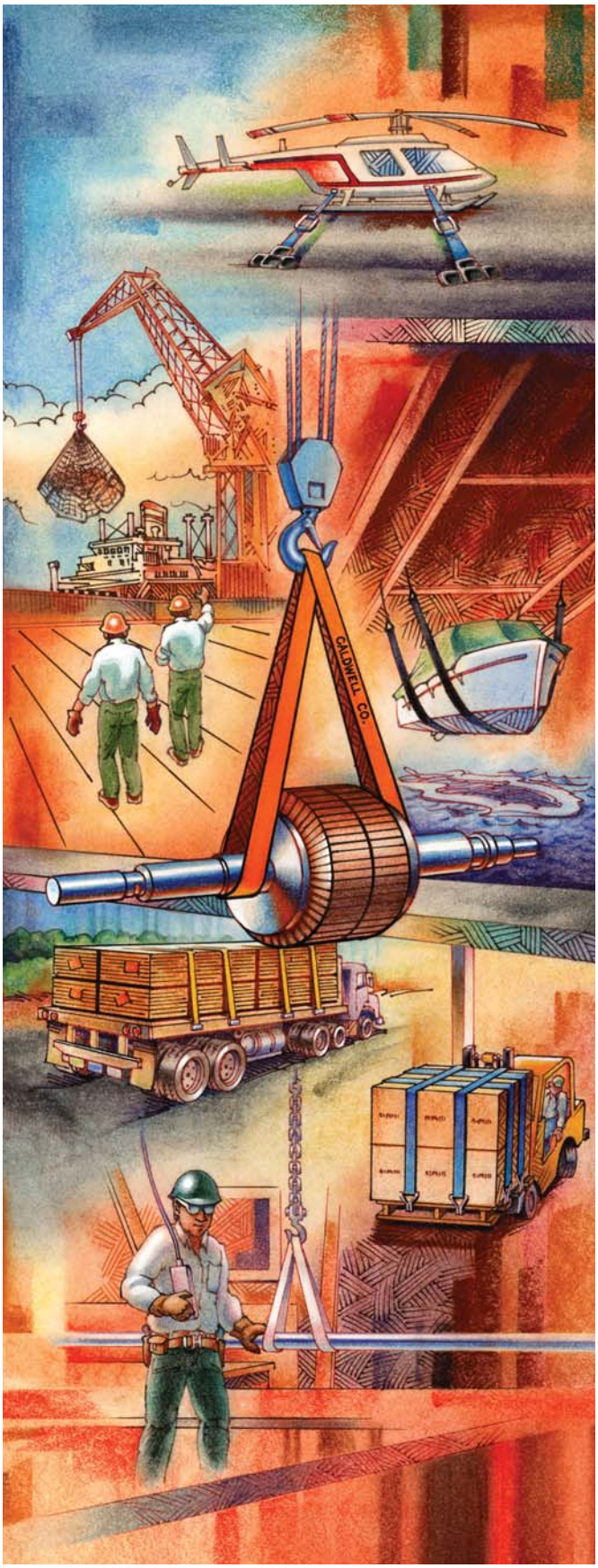
CALDWELL®
Slings & Tie Downs



Introduction to Caldwell® Slings & Tie Downs

The Caldwell Group has been manufacturing quality lifting equipment since 1954. It is our goal to manufacture high quality, long lasting products that will safely increase productivity.

Lifts can be large or small; heavy or light; bulky or fragile, applications of lifting slings are truly unlimited. Our synthetic slings can lift items that require careful handling such as expensive machinery, highly finished parts, and fragile loads. Our Wire Mesh, Rope and Chain Slings can handle pipe, steel, wood or any item that is not finished.

How To Use This Section
Please take a few moments to read the following pages. The information contained in these pages will help you in selecting the best sling for your application. Our inside sales department is also available to aid in selecting the correct sling for the applications or answer any questions you may have.

Why Caldwell?
Product safety and reliability are important. This is why Caldwell slings meet or exceed current ASME, WSTDA, and OSHA standards.

All Caldwell® Lifting Slings Have:
- Care and use information provided with every sling.
- Registered Tags.
- Product Safety Labels.

Caldwell Standard Quality
Caldwell slings follow specific design criteria as required by ASME. See the specific sling type within this section for details on that specific type of sling. If you would like your sling proof tested and a test certificate issued, please specify at the time of order (there is a nominal charge).

Caldwell Delivery Programs
The Caldwell Group offers two quick delivery programs, INSTOCK and QUICKSHIP.

IN-STOCK PROGRAM

Look for the green INSTOCK logo on our standard products. The specific INSTOCK model number is shown in green. INSTOCK products ship in 48 hours.*

QUICKSHIP PROGRAM

Look for the red QUICKSHIP logo on our standard products. The specific QUICKSHIP model number is shown in red. QUICKSHIP products ship in 7 to 10 days.*

* Excluding weekends and holidays.

Standard Web Slings - These lightweight and easy to use slings are best used in situations when the loads need to be protected from damage, or a flexible sling is required for easy rigging. Type 1 through 6, including Unilink®.

Special Application Slings - Each sling is designed for a specific application. Cargo Slings, Bridle Slings; Drum Handling, Pipe Lifting Slings, and Wheel Nets.

Roundslings - These lightweight synthetic slings are super flexible to conform to the shape of your load. Double jacket protection increases sling life. Color-coded by capacity for easy identification on the job site.

Wire Rope Slings - The most economical sling per ton of lift. Provides the strength and sturdiness required for lifting those tough loads. Used in industries where heavy loads and rugged conditions exist. Many configurations are available with a variety of end fittings.

Alloy Chain Slings - Superior strength slings, ease of handling and durability. Used in environments having severe lifting conditions such as foundries, steel mills, and heavy machining operations. Chain slings provide the longest sling life in conditions commonly seen in these environments.

Wire Mesh Slings - Widely used in metalworking machine shops and other industries where loads are abrasive, hot or have sharp edges, such as bar stock or plate steel. Mesh slings grip the load firmly without stretching, and the sling width greatly enhances load balancing.

Cargo Tie Downs - Can satisfy just about every cargo securing requirement. High strength webbing is available from 1" to 4" wide with a large assortment of end fittings, tighteners and optional accessories.

Index to Caldwell® Slings & Tie Downs

PRODUCT FEATURES

Shock Absorption

The stretching of web slings allows a cushion against sudden shock. When loaded at rated capacity, a nylon sling will stretch 6-8%. Slings will return to normal length when not loaded.

Registered Sling With Tag

Caldwell® Slings have a registered tag in accordance with industry standards indicating:

1. Manufacturer
2. Type Material—nylon or polyester
3. Serial No.
4. Rated Capacities
   Caldwell® Web Slings are marked to show:
   Rated Capacity (RC) by hitch
   - Choker (C)
   - Vertical (V)
   - Basket (B)
5. Length of Sling

Warning Tag

Caldwell® Slings have a warning tag:

⚠ WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Observe rated load. Avoid sharp edges and exposure to acid, alkali, sunlight and temperatures over 194° F. DEATH OR INJURY can occur from improper use or care.

Certification Of Web Slings

1. A Caldwell letterhead certification guaranteeing rated capacities and/or adherance to specifications is available upon request at no additional charge.

2. Proof testing services are available upon request (there is a nominal charge).

SLING WEBBING

Web Material — Soft And Flexible

Web slings are made from nylon or polyester lifting yarn that is woven into various widths and thicknesses. Sling webbing has its surface yarns connected from side to side, which not only protects the core yarns, but positions all surface and tensile yarns to work together to support the load.

Webbing Strength

The WSTDA and ASME (standard B30.9) recognizes two strengths of webbing:

1 Heavy Duty —webbing possessing minimum certified tensile strength in accordance with industry standards.
2. Medium Duty —webbing possessing a minimum certified tensile strength in accordance with industry standards.

Warning Core

Colored yarns under the jacket yarn show when the sling is worn or cut through, indicating the sling shall be removed from service and destroyed. Hardware can be retained and reworked if still in acceptable condition.

Chemical Exposure

Many chemicals have an adverse effect on sling material.

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

* Disintegrated by concentrated sulphuric acid.
** Degrade by strong alkalis at elevated temperatures.

Industry Standards That Affect Web Slings:

1. American Society of Mechanical Engineers - ASME B30.9 Standards for Slings.
2. Occupational Safety Health Administration - 1910.184 Standards for Slings.
3. Web Sling and Tie Down Association - Recommended Standard Specification for Synthetic Web Slings.

How To Order Caldwell® Web Slings

SLING SELECTION

Select a sling having suitable characteristics for the type of load, hitch and environment to which it will be subjected.

1. **Sling Capacity**
   Determine weight of the load.

2. **Sling Type**
   Select a sling of suitable design for the type of hitch to be used. Where there is no reason to use another type, an endless type is recommended. The endless type is more economical and gives longer service life because of wear rotation.

3. **Sling Width**
   If width is not a consideration because of load crushing or other reasons, use the narrowest sling that is rated to handle the load. Generally, a narrower sling is more economical.

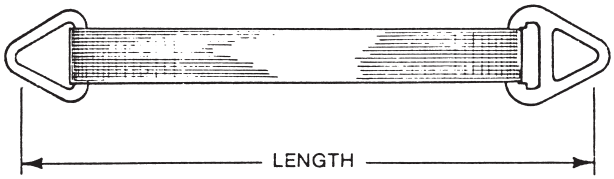
4. **Sling Length**
   Choker slings with metal end fittings must be of sufficient length to assure that choking action is on the webbing. Basket hitch slings must be of sufficient length to prevent overstressing of sling legs due to high sling leg angles.

5. **Sling Body Ply**
   Body ply indicates the number of web thicknesses in the body of a sling. A rule of thumb is that for a given sling you can double the rated capacity by doubling the plies.

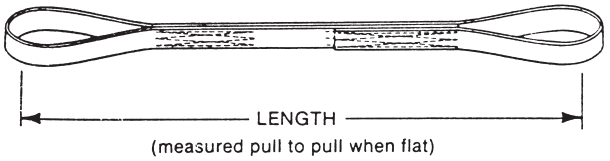
6. **Accessories**
   Use accessories to solve specific sling problems. Refer to the table below and accessories on page G.17.

HOW TO ORDER

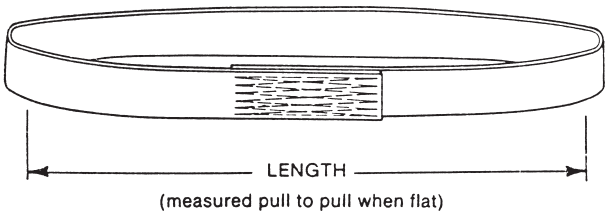
Specify:
1. Model Number (see example below)
2. Length (pull to pull)
3. Accessories: (if applicable)
   A. Accessory order code (if applicable)
   B. Accessory length (if applicable)
   C. Position on sling (if applicable)



Type I & II



Type III & IV



Type V

Trouble Spots	Suggestions
Wear in eyes of sling	A. Use Type I, II or Unilink® Slings B. Wear pad sewn in eye
Wear in body	A. Use Type VI sling B. If one particular spot-use wear pad C. If all over body use boot - may buy extra boots to save sling D. Sling Guard coating

Trouble Spots	Suggestions
Small cuts and wear on body edges	A. Use boot B. Use edgeguard
Slipping grip due to oil and grease and/or dirt penetrating fibers and causing degradation	A. Sling Guard coating

MODEL NUMBER EXAMPLE:

D 2 LL - Q x 12

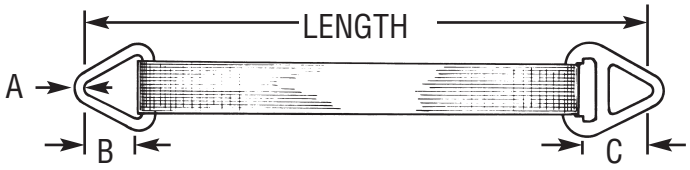
- D: No. of Body Ply: Blank - 1Ply; D - 2 Ply; T - 3 Ply; Q - 4 Ply
- 2: Sling Width
- LL: Sling Type
- Q: Web Code — Q = Class 7, Heavy Duty; N = Class 5, Medium Duty
- 12: Length In Feet

Standard Web Slings

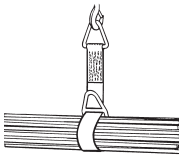
Type I: Basket and Choker Slings

QUICKSHIP PROGRAM

Type TC or UU

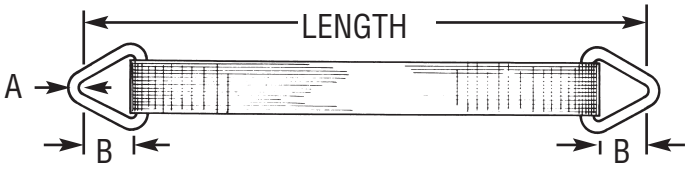


Basket and Choker Sling
Triangle one end.
Choker triangle other end.

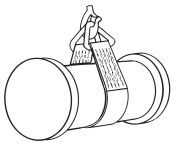


Type II: Basket Slings

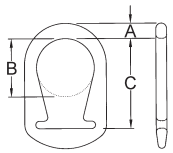
Type TT



Basket Sling
Triangle each end.



***Unilink*® Dimensions**



End Fittings: Increase the life of web slings and fit on smaller crane hooks better than web eyes.

Standard Steel End Fittings: Plated, alloy steel end fittings are furnished on Type 1 or 2 slings.

Optional Aluminum End Fittings: Forged aluminum end fittings are available for single ply slings, widths 2" - 6".

***Unilink*® End Fittings:** Functions as both triangle and choker.

NOTE: Chart below shows Model Number for Type I (TC) Slings. For Type II Slings, change TC to TT (triangle at each end).
Example: For Model No. 2TC-Q, change to 2TT-Q for a Type II Sling.

Sling Width Web (in.)	Min. Sling Length (ft.)	No. of Body Ply	Heavy Duty Nylon Rated Capacity (lbs.) By Hitch: Choker	Vertical	Basket	Heavy Duty Nylon Model No. (specify length) Nylon Q Web	Medium Duty Nylon Rated Capacity (lbs.) By Hitch: Choker	Vertical	Basket	Medium Duty Nylon Model No. (specify length) NYLON N WEB	End Fitting Dimensions (inches) Triangle A	Triangle B	Choker C
2	3	1	2500	3200	6400	2TC-Q	1900	2400	4800	2TC-N	5/8	1-3/4	5
	3	2	5000	6400	12800	D2TC-Q	3800	4800	9600	D2TC-N			
3	3	1	3800	4800	9600	3TC-Q	2900	3600	7200	3TC-N	3/4	2	6-1/4
	3	2	6900	8600	17200	D3TC-Q	5200	6500	13000	D3TC-N			
4	4	1	5000	6400	12800	4TC-Q	3800	4800	9600	4TC-N	13/16	2-3/8	7
	4	2	9200	11500	23000	D4TC-Q	6900	8600	17200	D4TC-N			
6	4	1	7700	9600	19200	6TC-Q	5800	7200	14400	6TC-N	1-1/16	3-1/8	9-1/2
	4	2	13400	16800	33600	D6TC-Q	10100	12600	25200	D6TC-N			
8	5	1	10200	12800	25600	8TC-Q	--	--	--	--	1-1/4	4	11-1/4
	5	2	17900	22400	44800	D8TC-Q	--	--	--	--			
10	5	1	12800	16000	32000	10TC-Q	--	--	--	--	1-7/16	5	12-7/8
	5	2	22400	28000	56000	D10TC-Q	--	--	--	--			
12	6	1	15400	19200	38400	12TC-Q	--	--	--	--	1-3/4	5-1/2	14-1/2
	6	2	26800	33600	67200	D12TC-Q	--	--	--	--			

Type UU *Unilink*® Hardware Slings

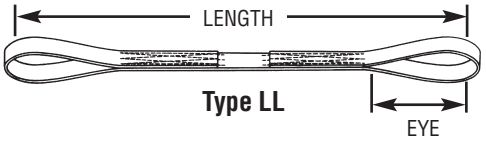
2	3	1	2500	3200	6400	2UU-Q	1900	2400	4800	2UU-N	11/16	2	3-11/16
	3	2	5000	6400	12800	D2UU-Q	3800	4800	9600	D2UU-N			
3	3	1	3800	4800	9600	3UU-Q	2900	3600	7200	3UU-N	7/8	3	5-1/16
	3	2	6900	8600	17200	D3UU-Q	5200	6500	13000	D3UU-N			
4	4	1	5000	6400	12800	4UU-Q	3800	4800	9600	4UU-N	1	4	6-3/16
	4	2	9200	11500	23000	D4UU-Q	6900	8600	17200	D4UU-N			

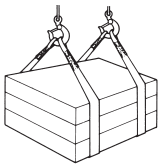
Standard Web Slings

Type III: Eye and Eye Slings

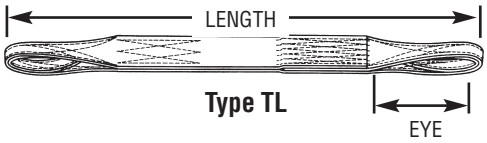
QUICKSHIP PROGRAM

An eye (or loop) at each end makes this type of sling ideal for use in a basket hitch. It can also be used in a choker hitch by passing one eye around the load and through the opposite eye. On multi-ply slings, the bodies are stitched full length.



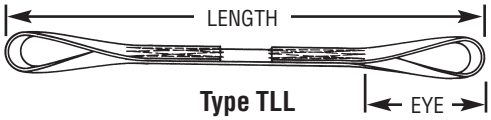


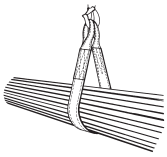
Eye and Eye Slings with Tapered Eyes
Tapered eyes permit the use of wide slings on small crane hooks. Eye lengths other than the standards listed here are available. Please specify.



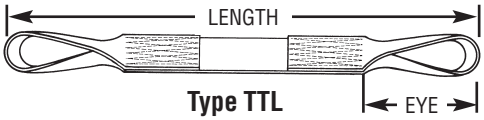
Type IV: Turned Eye Slings

On slings with turned eye construction, the eye openings are on the same plane as the flat webbing. This design better adapts turned eye type slings for choker hitch use.





Turned Eye Slings with Tapered Eyes
Tapered eyes permit the use of wide slings on small crane hooks. Turned eye slings with tapered eyes are well adapted for both basket and choker hitches.



NOTE: Chart below shows Model Number for Type III (LL or TL) Slings. For Type IV Slings, change LL to TLL or change TL to TTL. Example: For Model No. 2LL-Q, change to 2TLL-Q for a Type IV Sling.

Tapering
As a standard practice, the eyes of Types III and IV slings are tapered to accommodate a crane hook on slings that are 3" and wider. Untapered eyes are available upon request.

SPECIFICATIONS

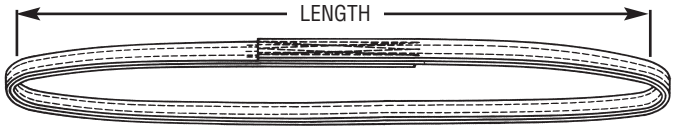
Sling Width (in.)	Eye Length Type (in.)	Minimum Sling Length (ft.)	No. of Body Ply	Heavy Duty Nylon Rated Capacity (lbs.) By Hitch: Choker	Vertical	Basket	Model No. (specify length) Nylon Q Web	Medium Duty Nylon Rated Capacity (lbs.) By Hitch: Choker	Vertical	Basket	Model No. (specify length) Nylon N Web
1	8-1/2	3	1	1250	1600	3200	1LL-Q	950	1200	2400	1LL-N
	8-1/2	3	2	2500	3200	6400	D1LL-Q	1900	2400	4800	D1LL-N
	10	3	4	4000	5000	10000	Q1LL-Q	3400	4200	8400	Q1LL-N
2	10	4	1	2500	3200	6400	2LL-Q	1900	2400	4800	2LL-N
	10	3	2	5000	6400	12800	D2LL-Q	3800	4800	9600	D2LL-N
	12	3	4	8000	10000	20000	Q2LL-Q	6400	8000	16000	Q2LL-N
3	11	4	1	3800	4800	9600	3TL-Q	2900	3600	7200	3TL-N
	11	3	2	6900	8600	17200	D3TL-Q	5200	6500	13000	D3TL-N
	14	5	4	11900	14900	29800	Q3TL-Q	9600	12000	24000	Q3TL-N
4	12	4	1	5000	6400	12800	4TL-Q	3800	4800	9600	4TL-N
	12	4	2	9200	11500	23000	D4TL-Q	6900	8600	17200	D4TL-N
	16	5	4	15800	19800	39600	Q4TL-Q	12800	16000	32000	Q4TL-N
6	16	5	1	7700	9600	19200	6TL-Q	5800	7200	14400	6TL-N
	16	6	2	13000	16300	32600	D6TL-Q	9800	12200	24400	D6TL-N
	18	6	4	23800	29800	59600	Q6TL-Q	18800	23500	47000	Q6TL-N
8	20	6	1	10200	12800	25600	8TL-Q	--	--	--	--
	20	6	2	15400	19200	38400	D8TL-Q	--	--	--	--
	24	7	4	31700	39700	79400	Q8TL-Q	--	--	--	--
10	24	8	1	12800	16000	32000	10TL-Q	--	--	--	--
	24	7	2	17900	22400	44800	D10TL-Q	--	--	--	--
	24	8	4	39600	49600	99200	Q10TL-Q	--	--	--	--
12	24	8	1	15400	19200	38400	12TL-Q	--	--	--	--
	24	8	2	21500	26900	53800	D12TL-Q	--	--	--	--
	24	8	4	47600	59500	119000	T12TL-Q	--	--	--	--

TYPE V: Endless Slings

QUICKSHIP PROGRAM

Endless Type Slings

Endless Type Slings are one of the **most versatile** and widely used type because of their adaptability to numerous applications. They can be utilized in a choker, vertical or basket hitch. Sling life is prolonged because of rotation of the wear surfaces.

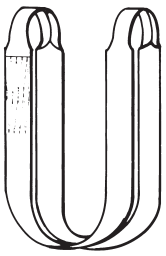


Type EE

NOTE: Sling length is measured from bearing point to bearing point.

Tapered Endless Sling

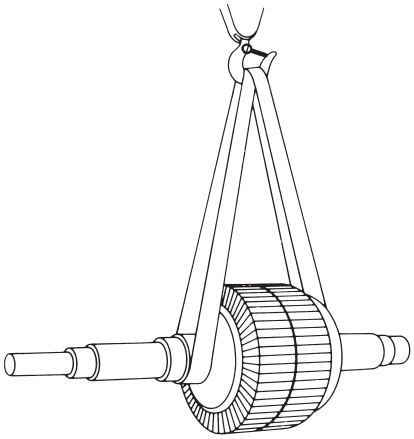
Two tapered points at opposite ends of the sling allow the use of wide slings on small crane hooks. However, the rotational feature of the sling is lost. Tapered points are for 1 & 2 ply slings only. Tapered points will be 1/3 sling width on medium duty and 1/2 sling width on heavy duty.



Type ET

CAUTION:

Web slings must be used with compatible fittings, hooks, and shackles. Bunching of webbing reduces capacity. Please order Tapered Endless Sling (ET) or other style sling to accommodate for lifting hardware.



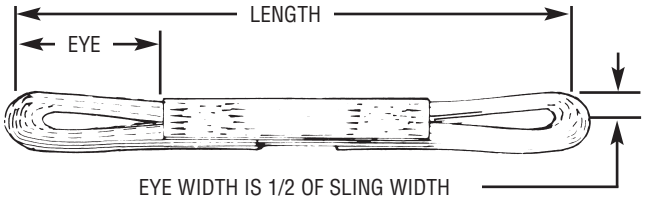
NOTE: Chart below shows Model Number for Type EE Endless Slings. For Tapered Endless Slings, change EE to ET. Example: For Model No. 2EE-Q, change to 2ET-Q for a Tapered Endless Sling.

SPECIFICATIONS

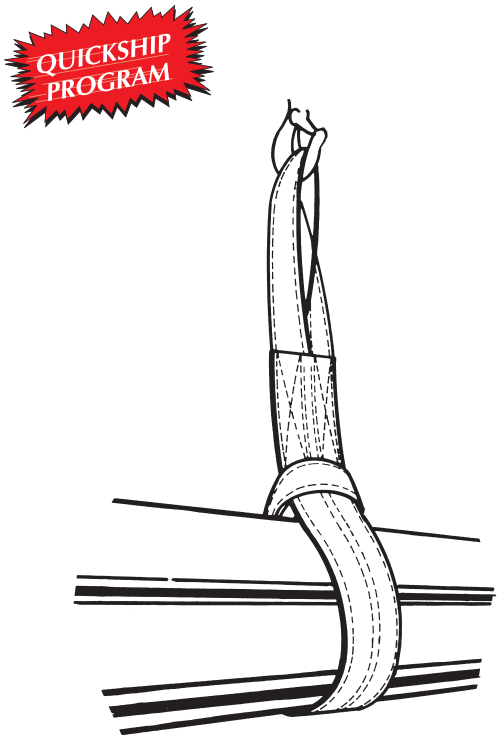
Sling Width (in.)	Minimum Sling Length (ft.)	No. Of Body Ply	Heavy Duty Nylon Rated Capacity (lbs.) By Hitch			Heavy Duty Nylon Model No. (specify length)	Medium Duty Nylon Rated Capacity (lbs.) By Hitch			Medium Duty Nylon Model No. (specify length)
			Choker	Vertical	Basket	Nylon Q Web	Choker	Vertical	Basket	Nylon N Web
1	3	1	2500	3200	6400	1EE-Q	1900	2400	4800	1EE-N
	3	2	4900	6200	12400	D1EE-Q	3800	4800	9600	D1EE-N
	3	3	6400	8000	16000	T1EE-Q	4900	6200	12400	T1EE-N
2	3	1	5000	6400	12800	2EE-Q	3800	4800	9600	2EE-N
	3	2	9800	12200	24400	D2EE-Q	7700	9600	19200	D2EE-N
	3	3	12800	16000	32000	T2EE-Q	10000	12500	25000	T2EE-N
3	3	1	6900	8600	17200	3EE-Q	5200	6500	13000	3EE-N
	3	2	13000	16300	32600	D3EE-Q	9400	11700	23400	D3EE-N
	3	3	17200	21500	43000	T3EE-Q	13000	16300	32600	T3EE-N
4	3	1	9200	11500	23000	4EE-Q	6900	8600	17200	4EE-N
	3	2	16500	20700	41400	D4EE-Q	12400	15500	31000	D4EE-N
	3	3	23000	28700	57400	T4EE-Q	16400	20600	41200	T4EE-N
6	3	1	13000	16300	32600	6EE-Q	9800	12200	24400	6EE-N
	3	2	23000	28600	52200	D6EE-Q	18000	22500	45000	D6EE-N
	5	3	32500	40700	81400	T6EE-Q	23400	29300	58600	T6EE-N
8	4	1	15400	19200	38400	8EE-Q	--	--	--	--
	4	2	24500	30700	61400	D8EE-Q	--	--	--	--
	5	3	36800	46000	92000	T8EE-Q	--	--	--	--
10	4	1	17900	22400	44800	10EE-Q	--	--	--	--
	4	2	26800	33600	67200	D10EE-Q	--	--	--	--
	6	3	41200	51500	103000	T10EE-Q	--	--	--	--
12	4	1	21500	26900	53800	12EE-Q	--	--	--	--
	4	2	30000	37600	75200	D12EE-Q	--	--	--	--
	6	3	47300	59200	118400	T12EE-Q	--	--	--	--

TYPE VI: Reverse Eye Slings

Reverse Eye Slings have a texturized nylon wear pad on both sides which protect the main body from load abrasion, as well as adding significantly to sling life. Both eyes are open at 90° to sling body for ease of rigging. Reverse eyes can be used in basket or choker hitches. Eye lengths other than the standards listed are available, please specify.



TYPE RE
Reverse Eye Sling



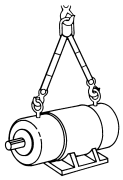
NOTE: On Reverse Eye Slings the eye width can be tapered to 1/4 of the sling width. This applies to 1 and 2 ply slings 4" in width or wider. For tapered eyes, add T to the Model Number. Example: For Model No. 6RE-N, change to 6TRE-N for Tapered Eyes. For Flat Eye Slings, change RE to FF. Example: For Model No. 4RE-Q, change to 4FF-Q.

SPECIFICATIONS

Sling Width (in.)	Eye Length (in.) RE	Minimum Sling Length (ft.)	No. of Body Ply	Heavy Duty Nylon Rated Capacity (lbs.) Choker	Vertical	Basket	Model No. (specify length) Reverse Eye Nylon Q Web	Medium Duty Nylon Rated Capacity (lbs.) Choker	Vertical	Basket	Model No. (specify length) Reverse Eye Nylon N Web
2	10	4	1	3600	4500	9000	2RE-Q	2900	3600	7200	2RE-N
	10	4	2	5200	6500	13000	D2RE-Q	4200	5200	10400	D2RE-N
4	12	4	1	6200	7700	15400	4RE-Q	5400	6800	13600	4RE-N
	12	4	2	10400	13000	26000	D4RE-Q	8400	10500	21000	D4RE-N
	16	5	3	13100	16400	32800	T4RE-Q	11200	14000	28000	T4RE-N
6	16	5	1	8800	11000	22000	6RE-Q	6400	8000	16000	6RE-N
	16	5	2	16000	20000	40000	D6RE-Q	11500	14400	28800	D6RE-N
	18	6	3	20400	25500	51000	T6RE-Q	16000	20000	40000	T6RE-N

Leather wear pads (instead of textured nylon) are available. See accessories on page I.17.

Special Application Web Slings



Single Leg Bridle Slings

QUICKSHIP PROGRAM

Webbing Bridle Slings are lightweight and easier to handle when compared to wire rope and chain bridle slings. High quality forged fittings are selected to match the webbing rated capacities. Webbing Bridle Slings help absorb shock and **do not conduct electricity.** Standard slings are available in single, double, triple, or quadruple leg designs. Webbing Bridle Slings are particularly useful when fixed lifting points are available.

Single Leg Bridle Slings Type SOS

SPECIFICATIONS

Sling Width (in.)	Web Plies	Minimum Sling Length (ft.)	Rated Capacity (lbs.) 90°	Sling Fitting Code Top	Sling Fitting Code Bottom	Model Number (specify length)
1	1	3	1600	1	5	SOS-EE1-801
1	2	3	3000	1	6	SOS-EE2-801
2	1	3	3000	1	6	SOS-EE1-802
2	2	3	6000	2	7	SOS-EE2-802

SPECIAL APPLICATION

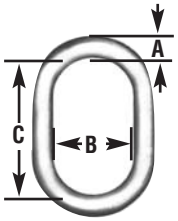
Double Leg Bridle Slings

Double Leg Bridle Slings Type DOS

SPECIFICATIONS

Sling Width (in.)	Web Plies	Minimum Sling Length (ft.)	Rated Capacity (lbs.) 60°	45°	30°	Sling Fitting Code Top	Sling Fitting Code Bottom	Model Number (specify length)
1	1	3	2700	2200	1600	1	5	DOS-EE1-801
1	2	3	5100	4200	3000	2	6	DOS-EE2-801
2	1	3	5100	4200	3000	2	6	DOS-EE1-802
2	2	3	10300	8400	6000	3	7	DOS-EE2-802

SPECIFICATIONS - Oblong Links



Link Code	Stock Diameter A (in.)	Inside Width B (in.)	Inside Length C (in.)	Unit Weight (lbs.)
1	1/2	2-1/2	5	.81
2	5/8	3	6	1.63
3	3/4	2-3/4	5-1/2	2.10
4	1	3-1/2	7	4.60
5	1-1/4	4-3/8	8-3/4	9.20

Special Application Web Slings

Three Leg Bridle Slings

Three Leg Bridle Sling Type TOS

QUICKSHIP PROGRAM

SPECIFICATIONS

Sling Width (in.)	Web Plies	Minimum Sling Length (ft.)	Rated Capacity (lbs.) 60°	45°	30°	Sling Fitting Code Top	Bottom	Model Number (specify length)
1	1	4	4100	3300	2400	2	5	TOS-EE1-801
1	2	4	7700	6300	4500	2	6	TOS-EE2-801
2	1	4	7700	6300	4500	2	6	TOS-EE1-802
2	2	4	15500	12700	9000	3	7	TOS-EE2-802

SPECIAL APPLICATION

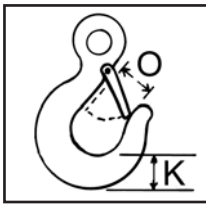
Four Leg Bridle Slings

Four Leg Bridle Slings Type QOS

SPECIFICATIONS

Sling Width (in.)	Web Plies	Minimum Sling Length (ft.)	Rated Capacity (lbs.) 60°	45°	30°	Sling Fitting Code Top	Bottom	Model Number (specify length)
1	1	4	5500	4500	3200	3	5	QOS-EE1-801
1	2	4	10300	8400	6000	3	6	QOS-EE2-801
2	1	4	10300	8400	6000	3	6	QOS-EE1-802
2	2	4	20700	16900	12000	4	7	QOS-EE2-802

SPECIFICATIONS - Latch Hooks



Hook Code	Alloy Hook Size (tons)	Dimensions (in.) O	K
5	1-1/2	1	.98
6	3	1-1/16	1.16
7	5	1-1/4	1.53

Model QC - Quick Choke™ Pipe Lifting Sling With G-Link™

PRODUCT FEATURES:

- Quick and easy rigging.
- Sling wraps around pipe and hooks on itself.
- Pipe can be handled quickly and efficiently when properly balanced.
- Use in pairs for added stability.
- Complies with ASME standards.

SPECIFICATIONS

Model Number	Rated Capacity (lbs.)	Web Sling	
		Width (in.)	Length (ft.)
QC-2	4000	2	10
QC-3	7000	3	12
QC-4	9000	4	14

NOTE: For different lengths, please specify.

Fitting Detail
Patent No. 5,651,573

Operation

Model PS - Quick Disconnect Pipe Lifting Sling With Quick Disconnect Buckle

QUICKSHIP PROGRAM

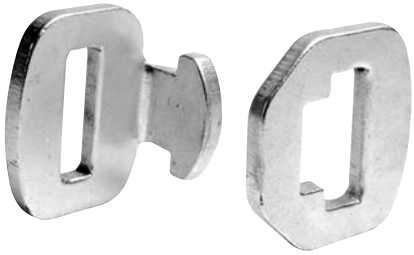
PRODUCT FEATURES:

- Quick and easy rigging.
- Sling wraps around pipe and buckles together eliminating the need to remove sling from hook.
- Pipe can be handled quickly and efficiently when properly balanced.
- Use in pairs for added stability.
- Complies with ASME standards.

SPECIFICATIONS

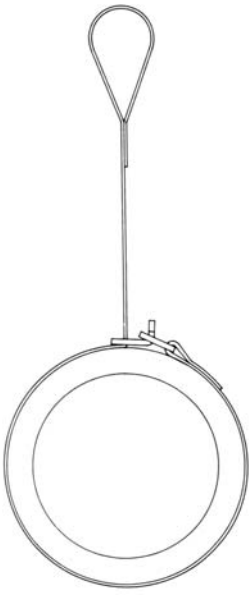
Model Number	Rated Capacity (lbs.)	Web Sling		Weight (lbs.)
		Width (in.)	Length (ft.)	
D2-PS-Q x 12'	2500	2	12	7
D3-PS-Q x 12'	3750	3	12	12

NOTE: For different lengths, please specify.

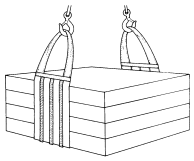


SPECIAL APPLICATION

Operation



Special Application Web Slings



Cargo Type Slings

Wide load slings support the load over a wide area to offer better balance for large loads – whether heavy or light. Wide bearing area reduces marring of soft load surfaces. Stiffeners are used at the base of the eyes to deter the body webbing from folding down the middle. Use only in a basket hitch.

SPECIFICATIONS

Body Width (in.)	Eye Length (in.)	Min. Sling Length (in.)	No. of Body Ply	Rated Capacity (lbs.)	Model Number (specify length)
6	9	40	1	15400	**WL1-806**
			2	28600	**WL2-806**
8	12	45	1	20400	**WL1-808**
			2	38000	**WL2-808**
12	18	60	1	30800	**WL1-812**
			2	57200	**WL2-812**
16	24	72	1	38000	**WL1-816**
			2	75000	**WL2-816**
20	30	88	1	45000	**WL1-820**
			2	90000	**WL2-820**
24	36	100	1	52000	**WL1-824**
			2	110000	**WL2-824**
30	45	120	1	45000	**WL1-830**
			2	90000	**WL2-830**
36	54	144	1	45000	**WL1-836**
			2	90000	**WL2-836**

Continuous Eye Wide Load Slings

SPECIAL APPLICATION

SPECIFICATIONS

Body Width (in.)	Eye Length (in.)	Min. Sling Length (in.)	No. of Body Ply	Rated Capacity (lbs.)	Model Number (specify length)
6	10	50	1	5000	**WLA1-806**
			2	10000	**WLA2-806**
8	10	50	1	5000	**WLA1-808**
			2	10000	**WLA2-808**
10	12	54	1	5000	**WLA1-810**
			2	10000	**WLA2-810**
12	12	56	1	5000	**WLA1-812**
			2	10000	**WLA2-812**
16	12	56	1	10000	**WLA1-816**
			2	18000	**WLA2-816**
20	18	68	1	10000	**WLA1-820**
			2	18000	**WLA2-820**
24	18	72	1	10000	**WLA1-824**
			2	18000	**WLA2-824**
30	18	72	2	18000	**WLA2-830**
36	22	88	2	18000	**WLA2-836**
48	30	122	2	18000	**WLA2-848**

Attached Eye Wide Load Slings

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 Load Angle Charts, page I.18.

Wheel Nets

Fast loading, of most sized vehicles, is possible because of the lightweight, soft flexibility and tremendous strength made possible by using nylon of various sizes.

Available in a wide range of lifting capacities, these wheel nets can be worked in a tight hold by hand folding the net into a bundle. Easily attach to the load by laying the Wheel Nets out and rolling the vehicle on or off the nets - no need for time consuming jacking. Steel links are at the lifting points for wear resistance.

Wheel Nets are used in matched pairs.

Vehicle Lift Slings and Spreader Bars in capacities of 5-ton, 17-ton and 30-ton are available upon request.

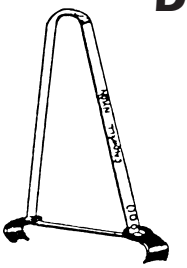
SPECIFICATIONS

Model Number	WLL* (lbs.)	Wheel Net Size (ft.)	Link Size (in.)	Weight Per Pair (lbs.)
WN 5.0	10000	3 x 14	5/8	31
WN 12.0	24000	4 x 16	7/8	108
WN 17.0	34000	4 x 16	1	125
WN 21.6	43200	4 x 16	1-1/4	170
WN 30.0	60000	5 x 24	1-3/8	250

* Work Load Limit (WLL) is based on a pair of wheel nets with one of the pair lifting up to 75% of the load and a design factor of 5:1.

Special Application Web Slings

Drum Handling Slings



Versatile Drum Handling Sling

This sling allows for easy handling of various sizes of steel drums and barrels, and has a 1,000 lb. capacity. It is light in weight, high in strength, and is resistant to oil.

PRODUCT FEATURES:

- Lightweight - weighs only 4 lbs.
- Versatile - lifts drums either vertically or horizontally.
- Self-tightening grip - sliding drum hooks tighten grip on load as drum is lifted.
- Tough - resistant to alkalis, ultra violet rays, rot and mildew.

SPECIFICATIONS

Model Number	Rated Capacity (lbs.)	Headroom - HR (in.)		Drum Hook Width (in.)
		30 Gallon	55 Gallon	
1HB2-N x 3'	1000	24	20	2-7/8
1HB2-N x 5'	1000	36	32	2-7/8

NOTE: For use on closed-head metal drums.

Type HB

SPECIAL APPLICATION

IN-STOCK PROGRAM

Ratchet Type Drum Handling Sling

- Easily lift standing drums for transport.
- Tilt suspended drums to pour from open top or spigot.
- Use with ribbed steel drums, the ratcheting belly band tightens securely below the first rib.
- Standard wear pad for added protection.
- Ratchet tightens securely.
- Free end of ratchet strap sewn to stay properly threaded.
- Vertical legs sewn to belly band to maintain proper position.

QUICKSHIP PROGRAM

SPECIFICATIONS

Rated Capacity (lbs.)	Model Number (specify diameter)	Drum Hook Width (in.)
300	DSV601	1 WEB
850	DSV602	2 WEB

Final size determined by drum diameter, please specify.

Type DSV

Special Application Web Slings

Sling Accessories

The number one cause of synthetic sling failure is cutting. When slings are cut, property damage and personal injury or death can result. Wear Pads can help to reduce this problem by acting as a buffer between the load edge and the slings.

Sling protection accessories are available in a wide variety of materials.

P - A high density synthetic felt - 5/16" thick
W - Heavy nylon sling webbing - 3/16" thick
HL - Heavy leather - 5/32" thick
TN - Abrasion and cut resistant webbing - 3/32" thick
BN - Wear resistant fabric great for bundling - 1/16" thick
PVC - Non-absorbent - 1/8" thick

Flat Quick Sleeves - specify length.

Web Width* (in.)	Model Number For Materials Avaliable			
	P	W	HL	TN
1	3FQS-P	3FQS-W	3FQS-HL	3FQS-TN
2	4FQS-P	4FQS-W	4FQS-HL	4FQS-TN
3	5FQS-P	-	5FQS-HL	5FQS-TN
4	6FQS-P	6FQS-W	6FQS-HL	6FQS-TN
6	8FQS-P	8FQS-W	8FQS-HL	-
8	10FQS-P	10FQS-W	10FQS-HL	-
10	12FQS-P	12FQS-W	12FQS-HL	-

Flat Sewn Sleeve† - specify length.

Web Width* (in.)	Model Number For Materials Avaliable			
	P	W	HL	TN
1	3SS-P	3SS-W	3SS-HL	3SS-TN
2	4SS-P	4SS-W	4SS-HL	4SS-TN
3	5SS-P	-	5SS-HL	5SS-TN
4	6SS-P	6SS-W	6SS-HL	6SS-TN
6	8SS-P	8SS-W	8SS-HL	-
8	10SS-P	10SS-W	10SS-HL	-
10	12SS-P	12SS-W	12SS-HL	-

Tubular Quick Attach Sleeves - specify length.

Sleeve Width* (in.)	Model Number For Materials Avaliable		
	P	W	HL
4	-	4TQS-W	4TQS-HL
5	-	-	5TQS-HL
6	-	6TQS-W	6TQS-HL
8	-	8TQS-W	8TQS-HL
10	-	10TQS-W	10TQS-HL
12	12TQS-P	12TQS-W	12TQS-HL
14	14TQS-P	14TQS-W	14TQS-HL
16	16TQS-P	16TQS-W	16TQS-HL
18	18TQS-P	18TQS-W	18TQS-HL
20	20TQS-P	20TQS-W	2TQS-HL
22	22TQS-P	22TQS-W	22TQS-HL
24	24TQS-P	24TQS-W	24TQS-HL
26	26TQS-P	26TQS-W	26TQS-HL
30	30TQS-P	30TQS-W	30TQS-HL
34	34TQS-P	-	34TQS-HL

* Single & double ply only, for three and four ply slings go to next larger size.

Sewn-On Wear Pads† - specify length.

Web Sling Width* (in.)	Model Number For Materials Avaliable				
	P	W	HL	TN	PVC
1	1WP-P	1WP-W	1WP-HL	1WP-TN	1WP-PVC
2	2WP-P	2WP-W	2WP-HL	2WP-TN	2WP-PVC
3	3WP-P	3WP-W	3WP-HL	3WP-TN	3WP-PVC
4	4WP-P	4WP-W	4WP-HL	4WP-TN	4WP-PVC
6	6WP-P	6WP-W	6WP-HL	6WP-TN	6WP-PVC
8	8WP-P	8WP-W	8WP-HL	-	8WP-PVC
10	10WP-P	10WP-W	10WP-HL	-	10WP-PVC
12	12WP-P	12WP-W	12WP-HL	-	12WP-PVC

Protective Edgeguard† - specify length & location of edgeguard.

Sling Plies	Model Number
1	EG1-TN
2	EG2-TN
3 & 4	EG3-TN

† Above options are factory installed only.

Rated Capacity - Load Angle Charts

Angle factor must be applied to calculate the reduced sling capacity when lifting force is not at 90° to the plane of the load.

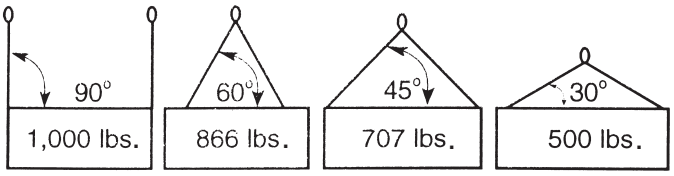
The rated capacities of the slings in this catalog are given in the charts on the following pages. Since the capacity depends on how the slings are used, separate ratings are given for vertical, choker, and basket hitch lifts.

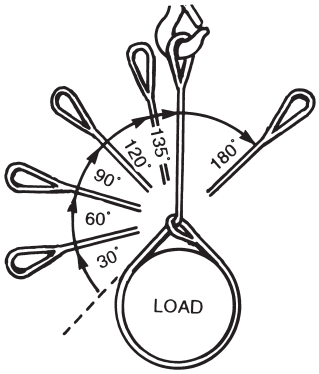
Basket Hitch

Angle 'A' Degrees	Cap. Reduction Factor
30	.500
35	.574
40	.643
45	.707
50	.766
55	.819
60	.866
65	.906
70	.940
75	.966
80	.985
85	.996
90	1.000

When selecting a sling to carry a given load, it is important to consider the angle at which the sling will be used. As the angle of the sling to the load changes, so does the capacity. For example: A sling rated at and lifting 1,000 pounds will be damaged - and could break suddenly - when the lifting angle is less than 30° at which angle the slings capacity is reduced to only 500 pounds. Please use the following formula to calculate the actual capacity of the sling being used for your specific application.

ACTUAL CAPACITY OF HITCH =
Rated Capacity X Capacity Reduction Factor





Choker Hitch

Angles Of Choke	Capacity Reduction Factor
90 - 119	.87
60 - 89	.74
30 - 59	.62

Care & Use of Caldwell® Web Slings

USE:

- Check weight of load.
- Check sling rated load for type of lift, angle of loading (see load angle chart).
- Sling shall not be twisted, tied into knots or joined by knotting.
- Sling shall always be protected from being cut by sharp corners, sharp edges, protrusions or abrasive surfaces.
- Center load on base (bowl) of hook unless hook is designed for point loading.
- Balance load.
- Maintain load control.
- Avoid jerking the load.
- Be alert for snagging of load.
- Avoid dragging sling over rough surfaces and from under load.
- Choker hitch must choke on webbing never on fitting.
- Stand clear of load at all times.
- No person allowed beneath the load.
- Persons are not to ride on sling or load.
- If sling is to be used in a chemical environment, contact manufacturer for specific recommendations.
- Web slings must be used with compatible fittings, hooks, and shackles. Bunching of webbing reduces capacity.

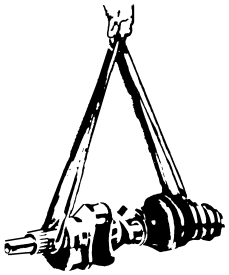
INSPECTION:

- Check tag for rated load adequate for the lift.
- Remove from service and replace is the following exists:
  - Core yarn is visible.
  - Webbing is cut, frayed, melted, charred or chemical damage is visible.
  - Webbing has holes, tears, snags, or abrasions.
- Remove from service and repair if ID tag is missing or illegible.
- Frequent inspection shall be performed by a qualified person before each lift.
- Periodic inspection shall be performed by a qualified person at least annually and written records maintained.

CARE: Store in a cool, dry, dark area away from sun and any ultraviolet light source.

REPAIR: Only the sling manufacturer or qualified person shall make repairs.

Roundslings



PRODUCT FEATURES:

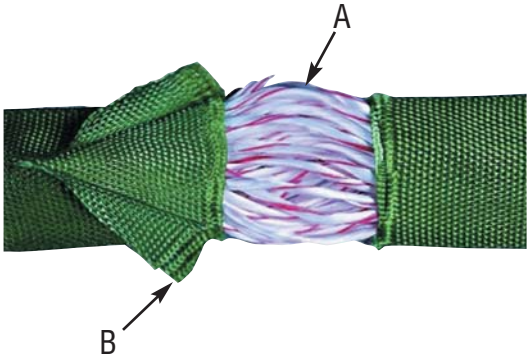
- Saves time, money and promotes safety in the workplace.
- Super flexible, conforms to shape of load, flattens and grabs the load securely.
- Soft cover won't mar painted or polished surfaces or cut hands.
- Lightweight and pliable for easy rigging and storage.
- Resistant to acids, ultra violet rays, rot and mildew.
- Good up to 194º F.
- Red striped, white core yarns allow for easy identification of damaged slings.

Sling Construction Details

Roundslings are constructed of a continuous, or endless loop of 100% polyester fiber (A). The multiple fiber construction makes the round sling soft and flexible – conforming easily to almost any load surface.

The double-polyester fabric cover (B) protects the internal fibers. Sling replacement is not necessary until the red striped white core yarns can be seen through holes in the jacket. When core yarns are visible, sling must be removed from service.

In addition, the endless roundslings can be constantly rotated, further extending the wear life of the protective covering and the sling.



How To Order Caldwell® Roundslings

Specify:

1. Sling Model Number.
2. Sling length (bearing to bearing).
3. Quantity of slings.
4. Any additional information required to adequately describe order.

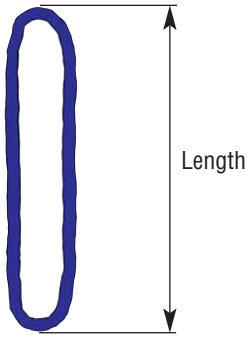
⚠ WARNING

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 Load Angle Charts, page I.18.

Endless Roundslings

All the basic Roundsling features plus... Endless Roundslings can be rotated to extend wear life.

QUICKSHIP PROGRAM



Endless
Type EN

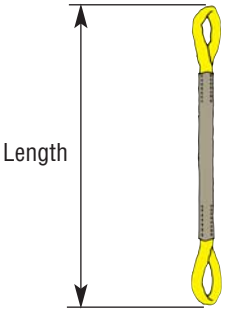
SPECIFICATIONS

Model Number	Color	Rated Capacity (lbs.) By Hitch			Relaxed Body Diameter (in.)	Body Width At Load (in.)	Minimum Length (ft.)
		Choker	Vertical	Basket			
EN30	Purple	2100	2600	5200	5/8	1-1/8	1-1/2
EN60	Green	4200	5300	10600	7/8	1-1/2	1-1/2
EN90	Yellow	6700	8400	16800	1-1/8	1-7/8	3
EN120	Tan	8500	10600	21200	1-1/8	2-1/8	3
EN150	Red	10600	13200	26400	1-3/8	2-1/4	3
EN180	White	13400	16800	33600	1-3/8	2-1/2	3
EN240	Blue	17000	21200	42400	1-3/4	3	3
EN360	Grey	24800	31000	62000	2-1/4	3-3/4	3
EN600	Brown	42400	53000	106000	2-3/4	4-5/8	8
EN800	Olive	52800	66000	132000	3-1/8	5-1/4	8
EN1000	Black	72000	90000	180000	3-5/8	6	8

Eye and Eye Roundslings

All the basic Roundsling features plus...
Additional jacket can help extend sling life if sling body abrasion has caused excessive wear in the past.

QUICKSHIP PROGRAM



Eye and Eye
Type EE

SPECIFICATIONS

Model Number	Color	Rated Capacity (lbs.) By Hitch			Body Width At Load (in.)	Standard Eye Length (in.)	Minimum Length (ft.)
		Choker	Vertical	Basket			
EE30	Purple	2100	2600	5200	2-1/4	10	4
EE60	Green	4200	5300	10600	2-1/2	10	4
EE90	Yellow	6700	8400	16800	2-1/2	12	4
EE120	Tan	8500	10600	21200	3-1/2	12	5
EE150	Red	10600	13200	26400	3-1/2	14	5
EE180	White	13400	16800	33600	3-1/2	16	7
EE240	Blue	17000	21200	42400	4-1/4	16	7
EE360	Grey	24800	31000	62000	6	20	7
EE600	Brown	42400	53000	106000	7	24	8
EE800	Olive	52800	66000	132000	8	30	9
EE1000	Black	72000	90000	180000	9	36	10

Care & Use of Caldwell® Roundslings

CARE: Store in a cool, dry, dark area away from sun and any ultraviolet light source.

USE:

- Check weight of load.
- Check sling rated load for type of lift, angle of loading (see Load Angle Charts, page I.18).
- Sling shall not be twisted, tied into knots or joined by knotting.
- Sling shall always be protected from being cut by sharp corners, sharp edges, protrusions or abrasive surfaces.
- Center load on base (bowl) of hook unless hook is designed for point loading.
- Balance load.
- Maintain load control.
- Avoid shock loading.
- Be alert for snagging of load.
- Avoid dragging sling over rough surfaces and from under load.
- Choker hitch must choke on webbing never on fitting.
- Stand clear of load at all times.
- No person allowed beneath the load.
- Persons are not to ride on sling or load.
- If sling is to be used in a chemical environment, contact manufacturer for specific recommendations.
- Roundslings must be used with compatible fittings, hooks, and shackles. Bunching of webbing reduces capacity.

INSPECTION:

- Check tag for rated load adequate for the lift.
- Remove from service and replace is the following exists:
  - Core yarn is visible.
  - Webbing is cut, frayed, melted, charred or chemical damage is visible.
  - Webbing has holes, tears, snags, or abrasions.
- Remove from service and repair if ID tag is missing or illegible.
- Frequent inspection shall be performed by a qualified person before each lift.
- Periodic inspection shall be performed by a qualified person at least annually and written records maintained.

REPAIR: Only the sling manufacturer or qualified person shall make repairs.

ENVIRONMENTAL CONSIDERATIONS:

- Nylon and polyester are seriously degraded at temperatures above 194° F and below -40° F.
- Many chemicals have an adverse effect on nylon and polyester. This chart is a general guide. For specific temperature, concentration and time factors, please consult Caldwell prior to purchase or use.

WARNING: This product may contain chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

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

* Disintegrated by concentrated sulphuric acid.
** Degrade by strong alkalis at elevated temperatures.
NOTE: Sizes 360 through 1000 have a polyester core and nylon jacket.

⚠ WARNING

Can fail if damaged, misused or overloaded. Inspect before use. Use only if trained. Observe rated load. Avoid sharp edges and exposure to acid, alkali, sunlight and temperatures over 194°F.

Wire Rope Slings

Wire Rope Slings are the most common and lowest cost per ton of lift of all slings. Caldwell® Wire Rope Slings provide the strength and sturdiness required for lifting those tough loads. Used in the construction industry and other industries where heavy loads and rugged conditions exist. Available in many configurations with a variety of end fittings, Caldwell® Wire Rope Slings can be the solution to your load lifting requirements.

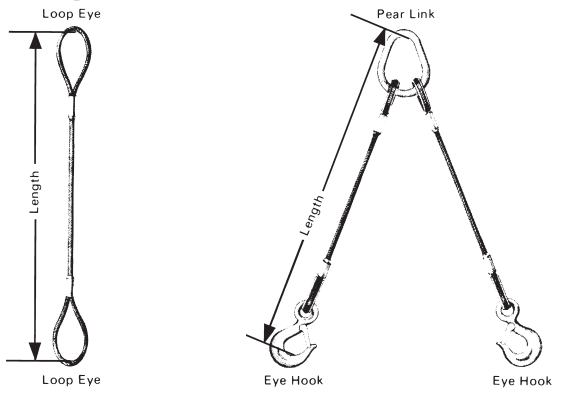
How to Order Caldwell® Wire Rope Slings

Specify:

1. Rope Diameter (inches)
2. Sling Length
3. Rope Construction
4. Number of Legs:
   1—Single Leg
   2—Double Leg
   3—Triple Leg
   4—Quad Leg
   } NOTE: For details consult factory
5. Attachments: Use 1 time for one end, 2 times for both ends
   E—Loop Eye (no end fittings)
   T—Extra Heavy Thimble
   ST—Slip-Thru Thimble
   TH—Thimble With Eye Hook
   SCH—Choker Hook
   CT—Cresent Thimble
   OL—Oblong Link

Examples:

Rope Diameter		Sling Length		Rope Construction		Number Of Legs		Attachments
1/2	-	7	-	619	-	2	-	OL/T/TH



1/2-5-619-1-E/E

WIRE ROPE SLINGS

Standard Combinations


Eye & Eye (E/E)


Eye & Thimble (E/T)


Eye & Hook With Thimble (E/TH)


Eye & Crescent Thimble (E/CT)


Eye & Slip-Thru Thimble (E/ST)


Thimble & Thimble (T/T)


Thimble & Hook With Thimble (T/TH)


Thimble & Crescent Thimble (T/CT)


Thimble & Slip-Thru Thimble (T/ST)


Crescent Thimble & Hook With Thimble (CT/TH)


Crescent Thimble & Crescent Thimble (CT/CT)


Slip-Thru Thimble & Hook With Thimble (ST/TH)


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

Sliding Choker


Eye & Eye (E/E/SCH)

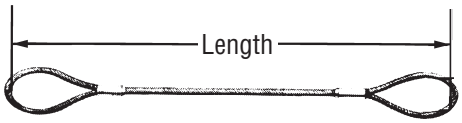

Eye & Thimble (E/T/SCH)

Wire Rope Slings

Caldwell® Wire Rope Slings are economical, general purpose, material handling slings which may be manufactured with a variety of fittings for use in many different configurations. The slings are manufactured with the flemish eye technique, giving the sling added strength should the swaged sleeve become damaged during use.

PRODUCT FEATURES:

- Reserve strength - integrity of eyes not solely dependent upon steel sleeves.
- Independent wire rope core resists crushing.
- When specified, thimble eyes protect wire rope from wear for increased life.
- Good abrasion resistance for longer life.



QUICKSHIP PROGRAM

SPECIFICATIONS

Rope Dia. (in.)	EIP, IWRC Rated Capacity (tons) Choker	Vertical	Vertical Basket	Minimum 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. / Cap.*)
6 x 19 Extra Improved Plow, Independent Wire Rope Core										
1/4	.48	.65	1.3	1' - 6"	2 x 4	7/8 x 1-5/8	1	2 x 4	2-1/8 x 4-1/8	3/8
5/16	.74	1.0	2.0	1' - 9"	2-1/2 x 5	1-1/16 x 1-7/8	1	2 x 4	2-1/8 x 4-1/8	3/8
3/8	1.1	1.4	2.9	2' - 0"	3 x 6	1-1/8 x 2-1/8	1-1/2	2 x 4	2-1/8 x 4-1/8	3/8
7/16	1.4	1.9	3.9	2' - 3"	3-1/2 x 7	1-1/4 x 2-1/4	2	2 x 5	2-3/8 x 4-3/8	1/2
1/2	1.9	2.5	5.1	2' - 6"	4 x 8	1-1/2 x 2-3/4	3	2-1/4 x 6	2-3/8 - 4-3/8	1/2 | 1.7*
9/16	2.4	3.2	6.4	2' - 9"	4-1/2 x 9	1-1/2 x 2-3/4	5	2-1/4 x 7	2-3/8 x 4-3/8	5/8
5/8	2.9	3.9	7.8	3' - 0"	5 x 10	1-3/4 x 3-1/4	5	2-3/4 x 7	3-3/8 x 6-5/8	5/8 | 2.5*
3/4	4.1	5.6	11	3' - 6"	6 x 12	2 x 3-3/4	7	3-1/4 x 8-1/2	3-3/8 x 6-5/8	3/4 | 4.0*
7/8	5.6	7.6	15	4' - 0"	7 x 14	2-1/4 x 4-1/4	11	4-1/2 x 10	3-3/4 x 7-1/8	7/8
1	7.2	9.8	20	4' - 6"	8 x 16	2-1/2 x 4-1/2	11	4-1/2 x 11-1/2	3-3/4 x 7-1/8	1
1-1/8	9.1	12	24	5' - 0"	9 x 18	2-7/8 x 5-1/8	15	4-7/8 x 13	4-3/8 x 8-3/8	1-1/8
6 x 37 Extra Improved Plow, Independent Wire Rope Core										
1-1/4	11	15	30	5' - 6"	10 x 20	3-1/2 x 6-1/2	15	5-1/2 x 14-1/2	4-3/8 x 8-3/4	1-1/4
1-3/8	13	18	36	6' - 0"	11 x 22	3-1/2 x 6-1/4	22	6 x 16	5 x 9-1/2	1-3/8
1-1/2	16	21	42	7' - 0"	12 x 24	3-1/2 x 6-1/4	22	6 x 17-1/2	5 x 9-1/2	1-1/2 | 15*
1-3/4	21	28	57	8' - 0"	14 x 28	4-1/2 x 9	30	7 x 20	6-3/4 x 11-3/4	-
2	28	37	73	9' 0"	16 x 32	6 x 12	37	7 x 23-1/2	8 x 14-1/2	-
2-1/4	35	44	89	10' - 0"	18 x 36	7 x 14	45	8-1/2 x 26	8 x 15-1/2	-
2-1/2	42	54	109	11' - 0"	20 x 40	-	-	8-1/2 x 29-1/2	-	-

NOTE: Larger diameter slings available. Basket ratings are based on a minimum D/d of 25, see page I.25.

* When using the designated sliding choker hooks, the slings rated capacity (tons) is reduced to the capacity (tons) noted above.

⚠ 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 Load Angle Charts, page I.18.

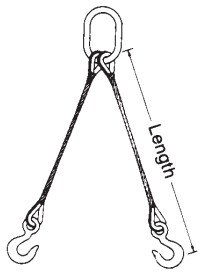
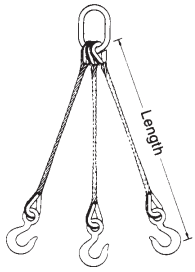
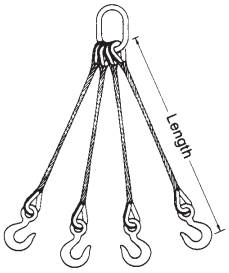
Bridle Slings

PRODUCT FEATURES:

- Bridles provide better load control and balance.
- Independent wire rope core resists crushing.
- Alloy steel hooks and links assure 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.

QUICKSHIP PROGRAM

SPECIFICATIONS

2-Leg Bridle	3-Leg Bridle	4-Leg Bridle
		

Rope Dia. (in.)	Min. Sling Length*	Eye Hook Cap. (tons)	2-Leg Bridle Rated Capacity (tons)* 60°	45°	30°	2-Leg Bridle Oblong Link Stock Dia. (in.)	3-Leg Bridle Rated Capacity (tons)* 60°	45°	30°	3-Leg Bridle Oblong Link Stock Dia. (in.)	4-Leg Bridle Rated Capacity (tons)* 60°	45°	30°	4-Leg Bridle Oblong Link Stock Dia. (in.)
6 x 19 Extra Improved Plow, Independent Wire Rope Core														
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	3/4	3.5	2.8	2.0	3/4
3/8	1' - 8"	1-1/2	2.5	2.0	1.4	3/4	3.7	3.0	2.2	3/4	5.0	4.1	2.9	1
7/16	1' - 10"	2	3.4	2.7	1.9	3/4	5.0	4.1	2.9	1	6.7	5.5	3.9	1
1/2	2'	3	4.4	3.6	2.5	3/4	6.6	5.4	3.8	1	8.8	7.1	5.1	1-1/4
9/16	2' - 2"	5	5.5	4.5	3.2	1	8.3	6.8	4.8	1	11	9.0	6.4	1-1/4
5/8	2' - 4"	5	6.8	5.5	3.9	1	10	8.3	5.9	1-1/4	14	11	7.8	1-1/4
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	1-3/4
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'	15	21	17	12	1-3/4	31	26	18	2	42	34	24	2-3/4
6 x 37 Extra Improved Plow, Independent Wire Rope Core														
1-1/4	4' - 6"	15	26	21	15	1-3/4	38	31	22	2-1/4	51	42	30	2-3/4
1-3/8	5'	22	31	25	18	2	46	38	27	2-3/4	-	-	-	-
1-1/2	5' - 6"	22	37	30	21	2-1/4	55	45	32	2-3/4	-	-	-	-
1-3/4	6' - 6"	30	49	40	28	2-3/4	-	-	-	-	-	-	-	-
2	8'	37	63	52	37	2-3/4	-	-	-	-	-	-	-	-

NOTE: Length Tolerances - 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.

* 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 Load Angle Charts, page I.18.

Care & Use of Caldwell® Wire Rope Slings

Tests have shown that whenever 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 Caldwell for revised capacities.

CARE:

- Store in a clean, dry place and protect from mechanical damage, extreme heat, corrosion or kinking.
- Keep sling lubricated.

USE:

- Check weight of load.
- Check sling rated load for type of lift, and angle of loading (see Load Angle Charts, page I.18.).
- Sling shall always be protected from being cut by sharp corners, sharp edges, protrusions or abrasive surfaces.
- Center load on base (bowl) of hook unless hook is designed for point loading.
- Balance load.
- Avoid shock loading.
- Maintain load control.
- Be alert for snagging of load.
- Avoid dragging sling over rough surfaces and from under load.
- Restrict use to temperatures below 400° F and above -40° F.

INSPECTION:

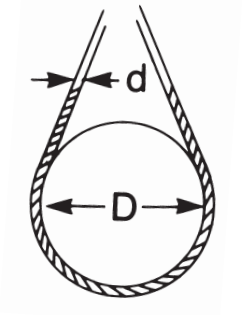
Remove sling from service if any of the following are visible:

- Ten broken wires in one rope lay or five wires in one strand in one rope lay.
- Wear or other loss of one-third of the original diameter of the individual wires.
- Evidence of heat damage or corrosion of rope (internal and external) or attachments.
- Kinking, crushing, bird caging, or any other damage resulting in distortion of the rope structure.
- End attachments, including hooks, that are cracked, deformed or obviously worn.

DO NOT inspect a sling by passing bare hands over the wire rope.

WARNING: These products may contain chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm.

D/d - Basket Hitch Effect



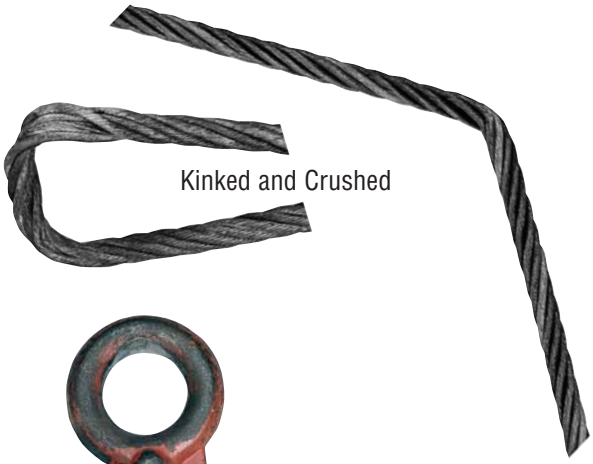
Examples of Wire Rope Sling Abuse

Broken Wires

Worn Wires

Corroded

Bird Caging



Kinked and Crushed

Worn and Deformed Attachments

Alloy Chain Slings

Alloy Chain Slings – Superior strength slings, ease of handling and durability. Used in environments having severe lifting conditions such as foundries, steel mills, and heavy machining operations. Chain slings provide the longest sling life in the conditions commonly seen in these environments.

PRODUCT FEATURES:

- Registered metal tag attached for identification and traceability.
- Long service life when used properly.
- Can be used in high temperature environments.

QUICKSHIP PROGRAM

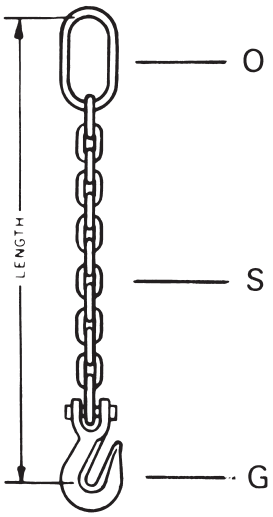
NOTE: Caldwell® Alloy Chain Slings are constructed using the best quality alloy steel, as designated by ASME. A **Registered Identification Tag** is attached to each chain sling. This tag serves as a permanent identification for the life of the sling. Each tag is stamped with the grade, size, reach, type, work load (at a specific angle of lift), and a register number corresponding to the information supplied with the sling invoice. This provides the needed information for user compliance with OSHA requirements, and that all persons involved in the purchase and use of Caldwell® Alloy Chain Slings are aware of the specifications. All chain and component parts are proof tested to twice the catalog working load limit.

How to Order Caldwell® Alloy Steel Chain Slings

Specify:

1. Grade of chain - 80 or 100
2. Chain size - Inches
3. Number of legs -
   - Single - (S)
   - Double - (D)
   - Triple - (T)
   - Quad - (Q)
   - Choker - (C)
4. Master Link - Oblong (O)
   or Specials -
   - Endless - (E)
   - Adjustable - (A)
   - Basket - (B)
5. Bottom Attachments -
   - Sling Hook With Latch - (SL)
   - Grab Hook - (G)
   - Foundry Hook - (F)
   - Latch Hook - (L)
6. Length of Assembly - Feet
   (Bearing point to bearing point)

Grade		Chain Size		Number Of Legs	Master Link	Bottom Attachments		Length
80	-	1/2	-	S	O	G	-	10



Grade 80 & 100 - Alloy Chain Slings

QUICKSHIP PROGRAM

PRODUCT FEATURES:

Grade 80
- Proven reliability.
- Available in welded or mechanically assembled slings.
- Widest range of sizes and styles.

Grade 100
- Higher capacity per chain size.
- Extreme abrasion resistance.
- Shot blasted & oil finished for corrosion resistance & uniformed appearance.

SPECIFICATIONS

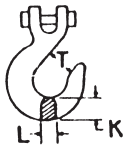
Chain Size		Rated Capacity (lbs.)							Nominal Dimensions (in.)		Approx. No. of Links (lbs.)	Approx. Weights per 100 ft.
		90°	60°	45°	30°	60°	45°	30°				
(in.)	(mm)	Single Chain @ 90°	Double Chain Slings			Triple & Quad Chain SlingsLength			Inside Width	Inside per ft.		
Grade 80												
7/32	5.5	2100	3600	3000	2100	5450	4450	3150	.671	.296	17.9	45
9/32	7.0	3500	6100	4900	3500	9100	7400	5200	.868	.395	13.8	74
3/8	10.0	7100	12300	10000	7100	18400	15100	10600	1.222	.572	9.8	146
1/2	13.0	12000	20800	17000	12000	31200	25500	18000	1.404	.720	8.5	258
5/8	16.0	18100	31300	25600	18100	47000	38400	27100	1.733	.845	6.9	387
3/4	20.0	28300	49000	40000	28300	73500	60000	42400	2.160	1.052	5.5	622
7/8	22.0	34200	59200	48400	34200	88900	72500	51300	2.250	1.137	5.3	776
1	26.0	47700	82600	67400	47700	123900	101200	71500	2.664	1.248	4.5	995
1-1/4	32.0	72300	125200	102200	72300	187800	153400	108400	3.250	1.656	3.7	1,571
Grade 100												
7/32	5.5	2700	4700	3800	2700	7000	5700	4000	.670	.284	17.9	45
9/32	7.0	4300	7400	6100	4300	11200	9100	6400	.868	.380	13.8	73
3/8	10.0	8800	15200	12400	8800	22900	18700	13200	1.181	.512	9.8	148
1/2	13.0	15000	26000	21200	15000	39000	31800	22500	1.535	.688	8.5	255
5/8	16.0	22600	39100	32000	22600	58700	47900	33900	1.890	.819	6.9	383
3/4	20.0	35300	61100	49900	35300	91700	47900	53000	2.362	1.024	5.5	625

Hardware Shapes - Dimensions

Oblong Link

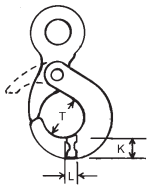
Foundry Hook

Sling Hook



Grab Hook

Latch Hook



Standard configurations shown in charts, other configurations available, please consult factory.

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 Load Angle Charts, page I.18.

Alloy Chain Slings - Grade 80

Single Chain Slings


SOSL


SOG


CO


SOF


SASL


SOL

QUICKSHIP PROGRAM

SPECIFICATIONS

Chain Size (in.)	Rated Cap. Vertical (lbs.)	Approx. Wt. 5 Foot Reach Type SOS (lbs.)	Oblong Link (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)			Locking Latch Eye Hook (in.)		
						Throat	Width	Depth	Throat	Width	Depth	Throat	Width	Depth
			A	B	C	T	L	K	T	L	K	T	L	K
9/32	3500	5	1/2	2-1/2	5	2.50	1.00	1.23	1.06	.73	1.05	1.38	.81	1.00
3/8	7100	10	3/4	3	6	3.00	1.27	1.50	1.31	.95	1.28	1.75	.63	1.14
1/2	12000	18	1	4	8	3.50	1.50	1.75	1.56	1.17	1.66	2.25	1.38	1.38
5/8	18100	27	1	4	8	4.00	1.81	2.03	1.75	1.44	2.19	2.44	1.75	1.75
3/4	28300	44	1-1/4	4-3/8	8-3/4	4.50	2.20	2.56	2.19	1.69	2.51	2.44	1.75	1.75
7/8	34200	58	1-1/2	5-1/4	10-1/2	5.00	2.25	2.78	2.38	1.94	2.84	-	-	-
1	47700	79	1-3/4	6	12	5.50	2.59	3.03	2.78	2.14	3.09	-	-	-
1-1/4	72300	121	2	7	14	6.00	3.17	3.81	3.41	2.62	3.89	-	-	-

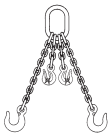
Double Chain Slings


DOG


DOSL


DOF


SB


DASL


SA


DOL

SPECIFICATIONS

Chain Size (in.)	Rated Cap. @ 60° (lbs.)	Approx. Wt. 5 Foot Reach Type DOS (lbs.)	Oblong Link At Top (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)			Locking Latch Eye Hook (in.)		
						Throat	Width	Depth	Throat	Width	Depth	Throat	Width	Depth
			A	B	C	T	L	K	T	L	K	T	L	K
9/32	6100	10	1/2	2-1/2	5	2.50	1.00	1.23	1.06	.73	1.05	1.38	.81	1.00
3/8	12300	17	3/4	3	6	3.00	1.27	1.50	1.31	.95	1.28	1.75	.63	1.14
1/2	20800	32	1	4	8	3.50	1.50	1.75	1.56	1.17	1.66	2.25	1.38	1.38
5/8	31300	51	1-1/4	4-3/8	8-3/4	4.00	1.81	2.03	1.75	1.44	2.19	2.44	1.75	1.75
3/4	49000	74	1-1/2	5-1/4	10-1/2	4.50	2.20	2.56	2.19	1.69	2.51	2.44	1.75	1.75
7/8	59200	99	1-3/4	6	12	5.00	2.25	2.78	2.38	1.94	2.84	-	-	-
1	82600	134	2	7	14	5.50	2.59	3.03	2.78	2.14	3.09	-	-	-
1-1/4	125200	211	2-1/4	8	16	6.00	3.17	3.81	3.41	2.62	3.89	-	-	-

CHAIN SLINGS

Triple and Quadruple Chain Slings

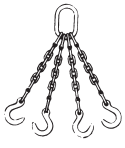

DB


TOSL


TOF


TOG


QOSL


QOF


QOG


DA

SPECIFICATIONS

Chain Size (in.)	Rated Cap. @ 60° (lbs.)	Approx. Wt. 5 Foot Reach Type TOS (lbs.)	Approx. Wt. 5 Foot Reach QSOS (lbs.)	Oblong Link (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)		
							Throat	Width	Depth	Throat	Width	Depth
				A	B	C	T	L	K	T	L	K
9/32	9100	16	19	3/4	2-3/4	5-1/2	2.50	1.00	1.23	1.06	.73	1.05
3/8	18400	28	35	1	4	8	3.00	1.27	1.50	1.31	.95	1.28
1/2	31200	53	63	1-1/4	4-3/8	8-3/4	3.50	1.50	1.75	1.56	1.17	1.66
5/8	47000	81	100	1-1/2	5-1/4	10-1/2	4.00	1.81	2.03	1.75	1.44	2.19
3/4	73500	116	140	1-3/4	6	12	4.50	2.20	2.56	2.19	1.69	2.51
7/8	88900	154	187	2	7	14	5.00	2.25	2.78	2.38	1.94	3.84
1	123900	209	250	2-1/4	8	16	5.50	2.59	3.03	2.78	2.14	3.09
1-1/4	187800	358	406	2-3/4	9	16	6.00	3.17	3.81	3.41	2.62	3.89

Other configurations available, consult factory.

Alloy Chain Slings - Grade 100

Single Chain Slings

SOSL SOG CO SOF SASL

QUICKSHIP PROGRAM

SPECIFICATIONS

Chain Size (in.)	Rated Cap. Vertical (lbs.)	Approx. Wt. 5 Foot Reach Type SOS (lbs.)	Oblong Link (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)		
						Throat	Width	Depth	Throat	Width	Depth
			A	B	C	T	L	K	T	L	K
9/32	4300	5	1/2	2-1/2	5	2.50	1.00	1.23	1.06	.73	1.05
3/8	8800	10	3/4	3	6	3.00	1.27	1.50	1.31	.95	1.28
1/2	15000	18	1	4	8	3.50	1.50	1.75	1.56	1.17	1.66
5/8	22600	27	1	4	8	4.00	1.81	2.03	1.75	1.44	2.19
3/4	35300	44	1-1/4	4-3/8	8-3/4	4.50	2.20	2.56	2.19	1.69	2.51

Double Chain Slings

DOG DOSL DOF SB DASL SA

SPECIFICATIONS

Chain Size (in.)	Rated Cap. @ 60° (lbs.)	Approx. Wt. 5 Foot Reach Type DOS (lbs.)	Oblong Link At Top (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)		
						Throat	Width	Depth	Throat	Width	Depth
			A	B	C	T	L	K	T	L	K
9/32	7400	10	1/2	2-1/2	5	2.50	1.00	1.23	1.06	.73	1.05
3/8	15200	17	3/4	3	6	3.00	1.27	1.50	1.31	.95	1.28
1/2	26000	32	1	4	8	3.50	1.50	1.75	1.56	1.17	1.66
5/8	39100	51	1-1/4	4-3/8	8-3/4	4.00	1.81	2.03	1.75	1.44	2.19
3/4	61000	74	1-1/2	5-1/4	10-1/2	4.50	2.20	2.56	2.19	1.69	2.51

Triple and Quadruple Chain Slings

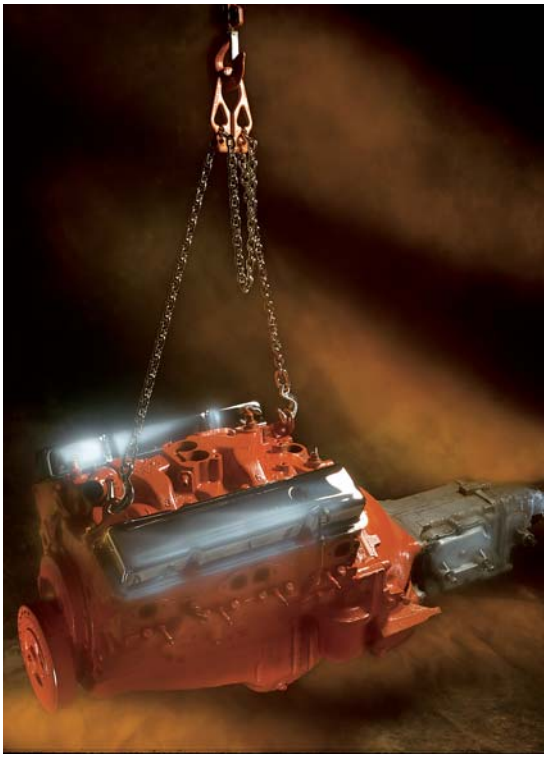
DB TOSL TOF TOG QOSL QOF QOG DA

SPECIFICATIONS

Chain Size (in.)	Rated Cap. @ 60° (lbs.)	Approx. Wt. 5 Foot Reach Type TOS (lbs.)	Approx. Wt. 5 Foot Reach QSOS (lbs.)	Oblong Link (in.)			Foundry Hook (in.)			Sling Hook With Latch (in.)		
							Throat	Width	Depth	Throat	Width	Depth
				A	B	C	T	L	K	T	L	K
9/32	11200	16	19	3/4	2-3/4	5-1/2	2.50	1.00	1.23	1.06	.73	1.05
3/8	22900	28	36	1	4	8	3.00	1.27	1.50	1.31	.95	1.28
1/2	39000	53	63	1-1/4	4-3/8	8-3/4	3.50	1.50	1.75	1.56	1.17	1.66
5/8	58700	81	100	1-1/2	5-1/4	10-1/2	4.00	1.81	2.03	1.75	1.44	2.19
3/4	91700	116	140	1-3/4	6	12	4.50	2.20	2.56	2.19	1.69	2.51

Other configurations available, consult factory.

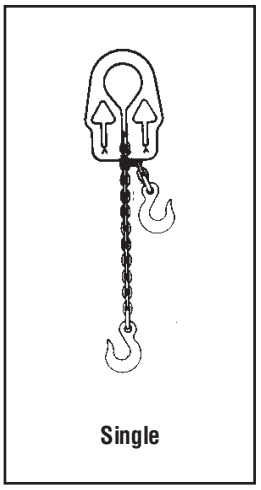
Adjust-A-Link

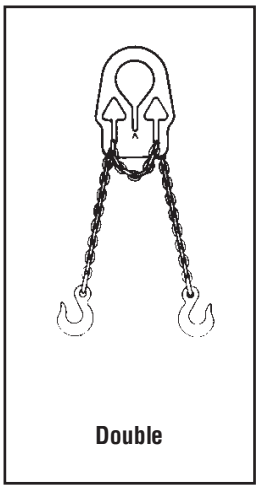


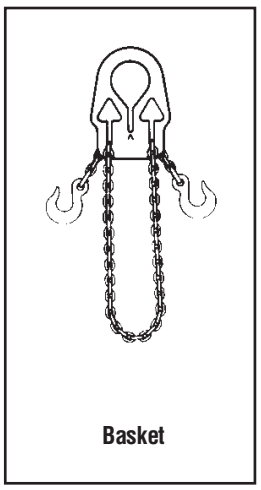
PRODUCT FEATURES:

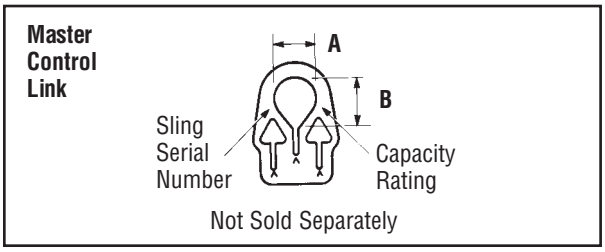
- Versatile assembly does many jobs.
- Easily adjustable to accommodate a wide range of applications.
- Heat-treated alloy steel construction.
- Powder coating of Master Control Link helps prevent rust.
- Plate is permanently stamped with capacity and serial number.

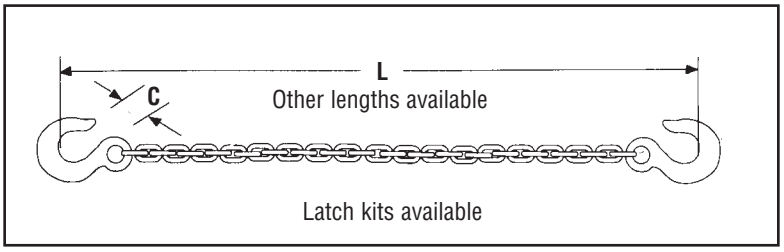
QUICKSHIP PROGRAM











SPECIFICATIONS

Model Number	Rated Cap. (lbs.)		Chain Size (in.)	Dimensions (in.)				Weight (lbs.)
	Single @ 90°	Double @ 60°		A	B	C	L	
CAAL-7/32-6	2700	4700	7/32	2-3/16	2-11/16	15/16	6	5
CAAL-7/32-10							10	7
CAAL-9/32-6	4300	7400	9/32	2-7/8	3-1/2	1-1/16	6	8
CAAL-9/32-10							10	11
CAAL-3/8-10	8800	15200	3/8	3-3/4	4-5/8	1-9/16	10	19
CAAL-3/8-14							14	25
CAAL-1/2-10	12000	20800	1/2	4-3/8	4-3/8	2	10	42
CAAL-1/2-14							14	52

Never substitute another chain or exceed the rated capacity. The load bearing chain must be seated at the base of adjusting slot of the Master Control Link. The Alloy Chain and Master Control Link shall not be used separately for general purpose lifting.
7/32, 9/32, and 3/8 Master Control Link uses Grade 100 Chain.
1/2" Master Control Link uses Grade 80 Chain.

WARNING
Minimum rigging angle is 45°.

Care & Use of Caldwell® Alloy Chain Slings

CARE:

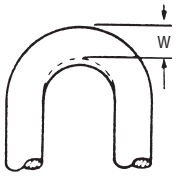
- Store on a rack in a clean, dry place.
- Oil prior to prolong use.
- Do not anneal (temper) alloy chain, connecting links or hook(s). Hot galvanizing requires chain manufacturers advice.

USE:

- Check weight of load.
- Check sling rated load for type of lift, angle of loading (See Load Angle Charts, page I.18.).
- Avoid twists, knots or kinks.
- Center load on base (bowl) of hook unless hook is designed for point loading.
- Balance load.
- Avoid shock loading.
- Be alert for snagging of load.
- Maintain load control.
- Pad sharp corners.
- Keep load off sling.
- Avoid dragging sling over rough surfaces and from under the load.
- Stand clear of the load at all times.
- No person allowed beneath the load.
- Persons are not to ride on sling or load.
- When shortening chain, use only the manufacturer's recommended alloy components.
- For use in temperatures over 400° see chart for capacity reduction.

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.



WEAR ALLOWANCE TABLE

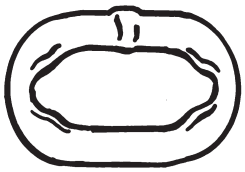
Chain Size (in.)	Minimum Allowable Thickness – W (in.)
9/32 (.281)	.239
3/8 (.375)	.335
1/2 (.500)	.435
5/8 (.625)	.536
3/4 (.750)	.669
7/8 (.875)	.744
1 (1.00)	.870
1-1/4 (1.25)	1.091

Temperature of Chain (°F)	Reduction of Working 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			

Examples Of Chain Sling Abuse/Wear Remove Sling From Service...

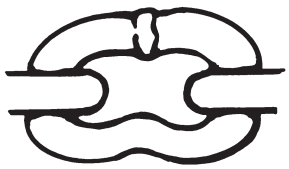
Worn Links

Excessive wear, especially at the bearing points, seriously weakens the chain.



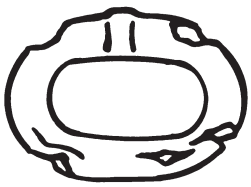
Bent Links

Usually caused by bending over sharp edges of a load.



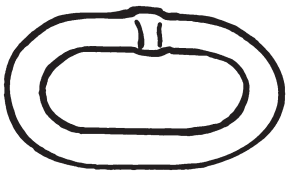
Gouged Links

Damaged by a heavy object being dragged over or dropped on the chain.

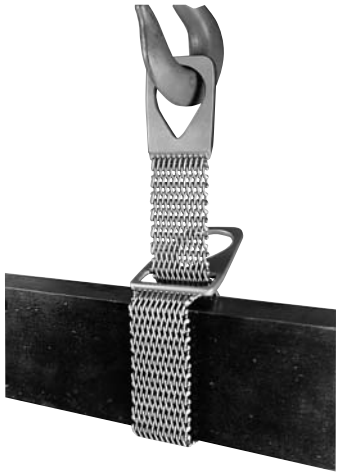


Stretched Links

Indicates the chain has been extremely overloaded or subjected to shock loading. These links would not hinge freely with adjacent links.



Wire Mesh Slings

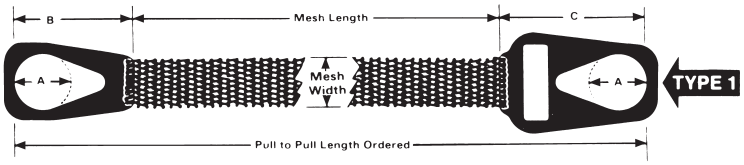


QUICKSHIP PROGRAM

PRODUCT FEATURES:

- Resists abrasion and cutting for greater sling life.
- Low stretch and good flexibility reduce load damage.
- Wide bearing area distributes load to help avoid load damage.
- Alloy steel end fittings - plated for long life.
- Wire mesh is zinc plated - resists corrosion.
- Each sling permanently stamped with capacity and serial number.
- Each sling proof tested and certified.
- Width of mesh helps control and balance load.
- Repairable - thus very cost effective.

Specifications



SPECIFICATIONS

Mesh Width (in.)	Rated Capacities (lbs.)		End Fitting Dimensions (in.)			Model Number			Weight Per (lbs.)	
	Choker	Basket	A	B	C	Gage-Width	Length	Type	3 Ft.	Extra Ft.
2	2300	4600	2	3-7/8	5-5/8	10-2	Specify Pull to Pull Length	Specify Type 1 or 2	6	1.3
3	3500	7000	2-1/4	4-3/8	6-1/4	10-3			8	1.9
4	4800	9600	3	5	6-3/4	10-4			10	2.5
6	7200	14400	3-1/2	5-5/8	7-3/4	10-6			14	3.9
8	9600	19200	4-1/2	7-1/2	9	10-8			19	5.1
10	12000	24000	4-3/4	8	10-7/8	10-10			25	6.4
12	14400	28800	5	8-5/8	11-3/8	10-12			29	7.6
14	16800	33600	5	8-3/4	12-3/4	10-14			38	8.9
16	19200	38400	5-1/4	9-1/8	14-1/4	10-16			50	10
18	21600	43200	5-1/2	9-3/4	15-3/4	10-18			70	11
20	24000	48000	5-3/4	10-1/8	17	10-20			77	13

Applications

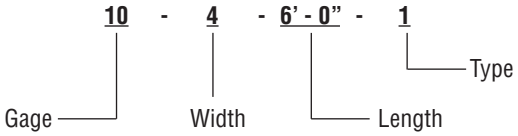
Wire Mesh Slings

How To Order Caldwell® Wire Mesh Slings

Specify:

1. Sling Model Number.
2. Sling length (pull to pull).
3. Specify type (1 or 2).
4. Quantity of slings.
5. Any additional information required to adequately describe order.

Example:



Care & Use of Caldwell® Wire Mesh Slings

CARE:

- Store in a clean dry area to avoid corrosive action.
- Do not use at temperatures above 550° F or below -20° F.

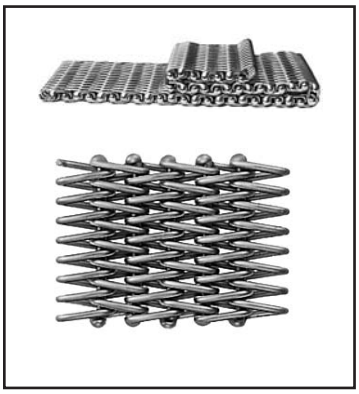
USE:

- Check weight of load.
- Check sling rated load for type of lift, and angle of loading (See Load Angle Charts, page I.18.).
- Pad sharp corners .
- Balance load.
- Maintain load control.
- Avoid shock loading.
- Be alert for snagging of load.
- The choker fitting must not be positioned against a load edge or directly on the triangle fitting.
- Stand clear of load at all times.
- Do not lift over people.

INSPECTION CRITERIA: Before each use - check that rated loads are marked on end fittings. Remove the sling from service if any of the following are visible:

- Broken weld or brazed joint along the sling edge.
- 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, wear, or cracks in either end fitting.

10 Gage - Heavy Duty



Repair Service Available

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 Load Angle Charts, page I.18.

Web Strap Systems

- IN PLANT
- VEHICLES/TRAILERS
- FLATBED TRUCKS

Your Assurance of a Secure Cargo

Caldwell® Cargo Tie-Downs can satisfy just about every cargo-securing requirement whether your cargo is heavy or lightweight, bulky or small... whether it is transported by truck, rail, airplane or ship for long hauls or by forklift just around the corner. High-strength webbing is available in a number of widths from 1" to 4" and tensile strengths from 1,000 to 20,000 lbs. With our large assortment of end fittings, tighteners and optional accessories, binding tasks are quick and easy, usually enabling one person to tie down the payload. Rugged Caldwell® Cargo Tie-Downs are resistant to rotting and mildew, and are non-marring, providing reliability and long service life that your cargo-securing demands.

Properties

1. **Web Material**
   Web straps are soft, flexible and nonconductive. Straps are made from polyester and nylon yarn, which is woven into various widths and thicknesses.

2. **Coating Treatment Of Web Straps**
   Nylon and polyester straps are latex treated for surer grip and resistance to wear and abrasion.

3. **Strength**
   Working Load Limit: The maximum load that may routinely be applied to an assembly or component in straight tension.

   Ultimate Strength: The load at which an assembly or component will fail in testing.

   A CARGO TIE-DOWN ASSEMBLY STRENGTH IS RATED AT THE LOWEST COMPONENT IN THE STRAP ASSEMBLY.

4. **Metal Components**
   The various tighteners and end fittings making up the assembly have been treated to prevent rust.

5. **Accessories - Protective Boots - Ratchet Pads And Corner Protectors**
   Protective Boots - fit over the webbing to prevent cutting and wear by the edges of the cargo. Boots slide on the webbing to allow proper placement of boot in relation to the cargo edges. See page I.17 for details.

   Ratchet Pad - prevents the metal ratchet from marring the cargo. The pad attaches directly to the underside of the metal ratchet. Add RP to order code.

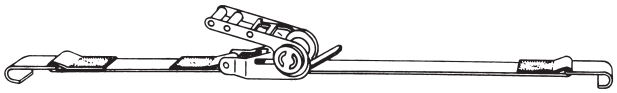
   Corner Protectors - movable rust proof copolymer. Protects tie downs from sharp corners. Add CP to order code.

Strap Types

STRAP ASSEMBLY — TYPE I

Consists of a Tightener and Webbing plus End Fittings at each end.

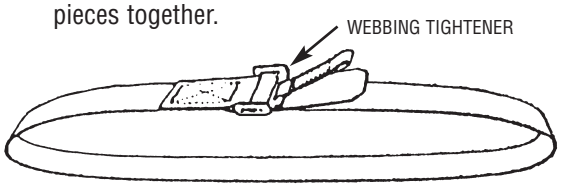
Application: Used to attach at two different hold down points and is tightened down over cargo.



LOOP STRAP — TYPE II

Consists of a Tightener and Webbing.

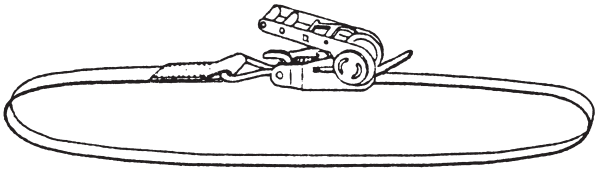
Application: Used to go around cargo and hold pieces together.



LOOP ASSEMBLY — TYPE III

Consists of a Tightener and Webbing plus End Fitting at one end.

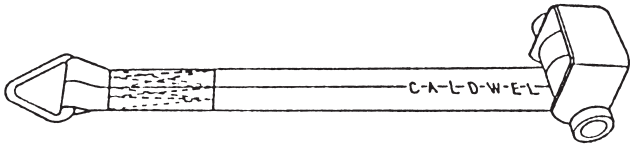
Application: Used to go around cargo and attach to one hold down point or attach fitting to tightener.



WINCH SYSTEMS — TYPE IV

Consists of a Winch and Webbing plus End Fitting at one end.

Application: Used on flat bed trucks; winch is secured to truck; end fitting hooks into attachment point and webbing is tightened down over cargo.

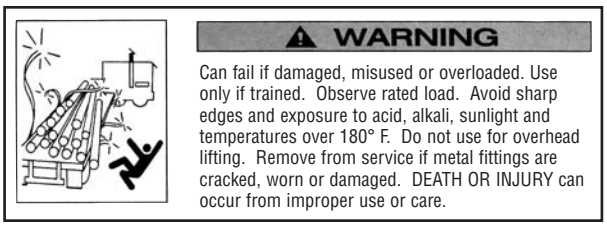


Care & Use of Caldwell® Tie-Downs

CARE: Store in a cool, dry dark area away from sun and any ultraviolet light source.

USE:

- Check weight of load.
- Check tie down working load limit.
- Never exceed rated capacities.
- Tie down shall not be twisted, tied into knots, or joined by knotting.
- Tie down shall always be protected from coming in contact with rough or sharp edges.
- Load should be securely blocked and stabilized before tensioning the straps.
- Re-tighten tie downs periodically during run.
- All hardware must be in line with direction of pull to achieve full strength.
- Never use assemblies for anything other than securing cargo. Do no use for lifting loads or towing vehicles.
- Tie downs are not rated for overhead lifting.
- Proper tie down methods should be used in accordance with federal and applicable state regulations.



INSPECTION:

Tiedown inspection records shall be established by the user.

Types Of Inspection:

1. **Initial -** Before any Tie-Down is placed in service it shall be inspected to insure that the correct tiedown is being used as well as to determine that the tiedown meets the requirements of this specification.

2. **Frequent -** Inspection should be made by a qualified person each day before each shift.

3. **Periodic -** Inspection shall be conducted by a qualified person. Frequency of inspection should be based on:
   A. Frequency of use.
   B. Severity of service conditions.
   C. Experience gained on the service life of tie-downs used in similar applications.
   D. Inspection should be conducted at least monthly.

REMOVE FROM SERVICE:

A tiedown shall be removed from service if any of the following are visible:

- Acid or alkali burns.
- Melting, charring, or weld spatter on any part of the webbing.
- Holes, tears, cuts, snags or embedded particles.
- Broken or worn stitching in load bearing sew patterns.
- Excessive abrasive wear.
- Knots in any part of the webbing.
- Distortion and excessive pitting or corrosion or broken fittings.
- Other apparent defects which cause doubt as to the strength of the tie down.

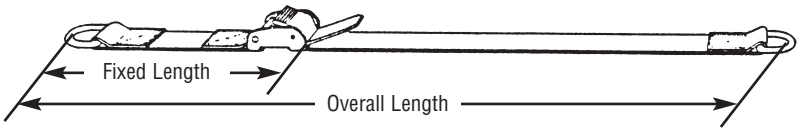
Light Duty 1" Web Strap Systems

Strength 1,000-3,000 lbs.

Caldwell's Light Duty Straps provide an ideal reusable strap for in-plant hold-down applications, at an economical cost. Examples: securing stacked boxes on pallets, binding together or segregating loose bars or bundles, securing cylinders upright, securing a ladder against falling.

CHOOSE STRAP TYPE

TYPE I-STRAP ASSEMBLY
consists of a TIGHTENER and WEBBING plus END FITTINGS at each end.



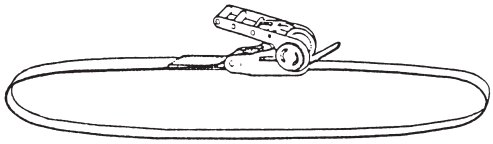
HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTINGS.
3. Determine LENGTHS in feet.
   A. Fixed (Standard 1-1/2')
   B. Overall
4. Accessories.

Model Number ☐ — ☐ — ☐ | ☐

Tightener & Webbing Code	End Fitting Code Left End/Right End	Lengths in Feet Fixed/Overall	Accessories Code(s)
Example: G.T2 -	1M/1M —	1-1/2'/20' —	3SS-TN x 3'

TYPE II-LOOP STRAP
consists of a TIGHTENER and WEBBING.



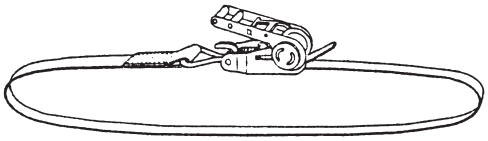
HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Determine OVERALL LENGTH in feet.
3. Accessories.

Model Number ☐ — ☐ | ☐

Tightener & Webbing Code	Overall Length in Feet	Accessories Code(s)
Example: 1CD.R1	— 12'	1RP

TYPE III-LOOP ASSEMBLY
consists of a TIGHTENER and WEBBING plus one END FITTING.



HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTING.
3. Determine OVERALL LENGTH in feet.
4. Accessories.

Model Number ☐ — ☐ — ☐ | ☐

Tightener & Webbing Code	End Fitting Code	Overall Length in Feet	Accessories Code(s)
Example: G.R1 -	1A —	10'	3SS-HL x 2'

Cargo Tie Downs

Light Duty 1" Web Strap Systems

QUICKSHIP PROGRAM

Item	TIGHTENERS				WEBBING	
	Type	Ultimate Strength (lbs.)	Working Load Limit (lbs.)	Code	1" Polyester Strength 3000 lbs. Code	2" Polyester Strength 6000 lbs. Code
	Ratchet	3000	1000	R1	G.R1	1CD.R1
	EXAMPLES:  G.R1-4'  1CD.R1 - 1N/1A - 1.5'/4'					
	Cam Buckle	1500	500	T2	G.T2	1CD.T2
	EXAMPLES:  1.CB.T2-4'  G.T2-1K/1K-1.5'/5'					
	Overcenter Buckle	1500	500	T4	G.T4	1CD.T4
	EXAMPLES:  G.T4-4'  G.T4 - 1M/1M-1'/3'					

End Fittings

Item	Type	Ultimate Strength (lbs.)	Working Load Limit (lbs.)	Code
	Narrow Hook	3000	1000	1A
	Hook & Keeper	3000	1000	1B
	Flat Hook	1500	500	1D
	Open Hook	1200	400	1E
	Snap Hook	3000	1000	1K
	Sewn Loop	Ultimate Web Strength	Web Working Load Limit	1L
	Dee Ring	1800	600	1M
	Snap Hook	3000	1000	1N
	Bolt Plate	1500	500	1Q

The assembly system working load limit (WLL) is determined by the component with the lowest rated WLL, whether it is the anchor point or the synthetic web tie down.

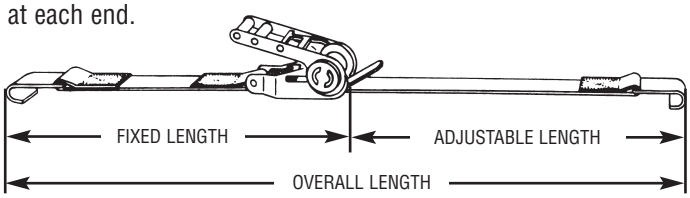
Medium Duty 2″ Web Strap Systems

Strength 2,000-5,000 lbs.

Caldwell's Medium Duty Straps are used for the heavy moves, such as machinery or where movement can generate a substantial force against the tie-downs, as on a vehicle.

CHOOSE STRAP TYPE

TYPE I-STRAP ASSEMBLY
consists of a TIGHTENER and WEBBING plus END FITTINGS at each end.



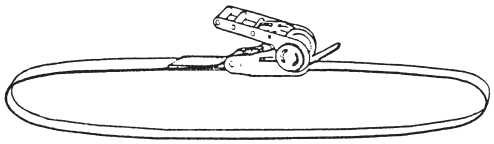
HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTINGS.
3. Determine LENGTHS in feet.
   A. Fixed (Standard 1-1/2')
   B. Overall
4. Accessories.

Model Number ☐ — ☐ — ☐ ⋮ ☐

Tightener & Webbing Code	End Fitting Code Left End/Right End	Lengths in Feet Fixed/Overall	Accessories Code(s)
Example: K.R5 - 2A/2X	— 1-1/2'/12'		RP

TYPE II-LOOP STRAP
consists of a TIGHTENER and WEBBING.



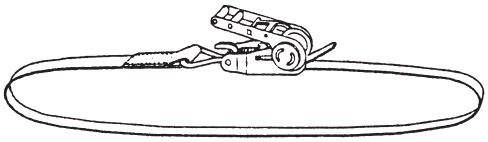
HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Determine OVERALL LENGTH in feet.
3. Accessories.

Model Number ☐ — ☐ ⋮ ☐

Tightener & Webbing Code	Overall Length in Feet	Accessories Code(s)
Example: 2CD.CB	— 12'	4SS-TN x 1'

TYPE III-LOOP ASSEMBLY
consists of a TIGHTENER and WEBBING plus one END FITTING.



HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTING.
3. Determine OVERALL LENGTH in feet.
4. Accessories.

Model Number ☐ — ☐ — ☐ ⋮ ☐

Tightener & Webbing Code	End Fitting Code	Overall Length in Feet	Accessories Code(s)
Example: K.R5 - 2X	— 10'		4SS-W x 3'

Medium Duty 2" Web Strap Systems

QUICKSHIP PROGRAM

Item	Tighteners				Webbing	
	Type	Ultimate Strength (lbs.)	Working Load Limit (lbs.)	Code	2" Nylon Strength 5000 lbs. Code	2" Polyester Strength 6000 lbs. Code
	Standard Ratchet	5000	1667	R5	2CD.R5	K.R5
	EXAMPLES:  2CD.R5-2Q/2Q - 1.5'/5'  KR5 - 8'					
	Cam Buckle	3000	1000	CB	2CD.CB	K.CB
	EXAMPLES:  2.CB-2G/2G-1'/5'  K.CB-8'					

End Fittings

Item	Type	Ultimate Strength (lbs.)	Working Load Limit (lbs.)	Code
	Snap Hook	5000	1667	2A
	Hook & Keeper	5000	1667	2B
	Narrow Hook	5000	1667	2J
	Twisted Snap Hook	5000	1667	2T
	Sewn Loop	Ultimate Web Strength	Web Working Load Limit	2L
	Flat Hook	5000	1667	2Q
	Bolt Plate	5000	1667	2S
	Dee Ring	5000	1667	2X
	Open Hook	1200	400	1E

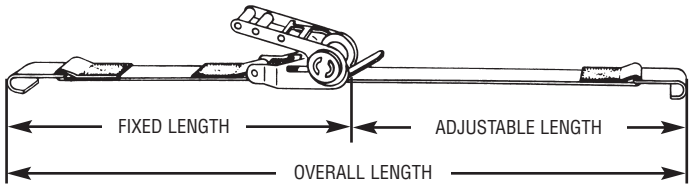
The assembly system working load limit (WLL) is determined by the component with the lowest rated WLL, whether it is the anchor point or the synthetic web tie down.

Heavy Duty & Flat Bed Truck Tie Down Systems

Polyester Web Strap Ratchet & Winch Assemblies

Caldwell® Polyester Straps secure loads efficiently, do not mar, and stretch less than nylon straps. Straps are highly visible yellow and conform to California and Federal specifications. Polyester Straps are available with multiple end fitting configurations.

Ratchet Systems



HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTINGS.
3. Determine LENGTHS in feet.
   A. Fixed (Standard 1-1/2')
   B. Overall
4. Accessories.

Model Number

Tightener & Webbing Code	End Fitting Code Left End/Right End	Lengths in Feet Fixed/Overall	Accessories Code(s)

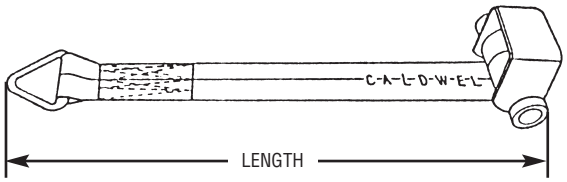
Example: 2P.R10W - 2D/2D — 1-1/2'/20'

EXAMPLES:

2P.R10W-2D/2D-1-1/2'/8'

2P.R10W-2Z/2Z-1-1/2'/7'

Winch Systems & Replacement Straps



HOW TO ORDER:

1. Choose TIGHTENER/WEBBING combination.
2. Choose END FITTING.
3. Determine LENGTH in feet.
4. Accessories.

Model Number

Tightener & Webbing Code	End Fitting Code	Length in Feet	Accessories Code(s)

Example: 4P.WS - 4T — 27'

EXAMPLES:

4P.WS-4T-8'

4P.WP-3C-9'

Cargo Tie Downs

Heavy Duty & Flat Bed Truck Tie Down Systems

QUICKSHIP PROGRAM

Item	Tighteners				Webbing		
	Type	Ulitimate Strength (lbs.)	Working Load Limit (lbs.)	Code	2" Polyester Strength 10000 lbs. Code	3" Polyester Strength 15000 lbs. Code	4" Polyester Strength 20000 lbs. Code
	Ratchet	10000	3333	R10W	2P.R10W	N/A	N/A
	EXAMPLES:  2P.R10W-2Z/2Z-1-1/2'/7'						
	Ratchet	15000	5000	R15	N/A	3P.R15	N/A
	EXAMPLES:  3P.R15-2E/2E-3/28'						
	Winch	20000	6666	WS - STADARD WP - PORTABLE	N/A	N/A	4P.WS 4P.WP
	EXAMPLES:  4P.WS-4T-8'  4P.WP-3C-9'						

End Fittings

Item	Type	Ultimate Strength (lbs.)	Working Load Limit (lbs.)	Code
	Flat Hook	10000	3333	2D
	Heavy Duty Flat Hook	15000	5000	2E
	Turned Snap Hook	10000	3333	2N
	Delta Ring	10000	3333	2Z
	Chain Anchor 12"	16200	5400	3B
	Chain Anchor 18"	16200	5400	3C
	Grab Hook	16200	5400	3G
	Heavy Duty Delta Ring	16200	5400	4T

The assembly system working load limit (WLL) is determined by the component with the lowest rated WLL, whether it is the anchor point or the synthetic web tie down.