

CUMBERLAND SALES CO.



WIRE ROPE & RIGGING
FALL PROTECTION

615-833-7884

www.cumberlandsalescompany.com





TABLE OF CONTENTS

PAGES 1-2: Warnings, Safety Ratings And Handling

PAGES 3-4: Safety Gear And Fall Protection Information

PAGES 5-8: Wire Rope And Cable (Bright And Galvanized)

PAGES 8-10: Wire Rope And Cable Stainless Steel (grade 304 and 316)

PAGES 11-12: Stainless Steel Hardware

PAGES 13-14: Swager/Crimper And Cable Cutters

PAGES 15-24: Stainless Steel Fittings For Deck Railing

PAGES 25-29: Turnbuckle, Shackles, Eybolts And Wire Rope Clips

PAGES 30-31: Chain (Stainless Steel, Grade 70, Grade 80, Grade 100 And Galvanized)

PAGE 32: Chain Slings

PAGES 33-34: Wire Rope Slings

PAGE 35: Hooks

PAGES 36-37: Nylon Slings

PAGE 38: Snatchblocks

PAGE 39: Nylon Ratchet Straps

PAGE 40: Ratchet Binders And Binder Chain

PAGE 41: Truck Flat Bed Winches And Winch Nylon Straps

PAGES 42-43: Logging Chokers, Swage Cable, Fittings And Cutters

PAGE 44: Fittings (Quicklinks, Snaplinks, Swival Eye)

PAGE 45: Rope (Nylon, Synthetic, Manila And Dynemma)

PAGE 46: Come A Longs And Chain Hoists

PAGE 47: Plate Clamp (Dog)

****IMPORTANT WARNINGS****

Please Read Before Use Of Any Products



Sold By

Cumberland Sales Company

DEFINITIONS

Information contained in this catalog is subject to change; all weights and dimensions are approximate. Ratings are stated in short tons (2,000 lbs) or pounds. All dimensions are in inches; all weights are in pounds, unless stated otherwise.

Work Load Limit (WLL) or Rated Capacity

The work Load Limit is the maximum load that should ever be applied to the product, even when a product is new and when the load is uniformly applied – straight-line pull only.  **AVOID SIDE LOADING!** All catalog ratings are based upon usual environmental conditions, and consideration must be given to unusual conditions such as extreme high or low temperatures, chemical solutions or vapors, prolonged immersion in salt water, etc. Adverse conditions, unusual, or high-risk applications may necessitate reducing the working load limit.  **NEVER EXCEED THE WORKING LOAD LIMIT!**

Proof Test Load (Proof Load)

The term “Proof Test” designates a quality control test applied to the product for the sole purpose of detecting defects in material and manufacture. The Proof Test Load (usually twice the Work Load Limit) is the load, which line the product withstood without deformation when new and under laboratory test conditions. A constantly increasing force is applied in direct line to the product at a uniform rate of speed on a standard pulling machine. *The Proof Test load does not mean/imply/ the Working Load should never be exceeded.*

Breaking Strength/Ultimate Strength

Do NOT use Breaking Strength as a criterion for service or design purposes. **Refer to the Work Load Limit instead.**

Breaking Strength is the average force at which the product, in the condition it would leave the factory, has been found by representative testing to break, when a constantly increasing force is applied in direct line to the product at a uniform rate of speed on a standard pull testing machine.

Remember: Breaking Strengths, when published, were obtained under controlled laboratory conditions that are almost impossible to duplicate in actual use. *Listing of the Breaking Strength does not mean the Working Load Limit should ever be exceeded.*

Design Factor (sometimes referred to as safety factor)

An industry term denoting theoretical reserve capability. Usually computed by dividing the catalog Breaking Strength by the catalog Work Load Limit, and generally expressed as a ratio. For example: 5 to 1.

Shock Load

A load resulting from the rapid change of movement, such as impacting, jerking or swinging of a static load. Sudden release of tension is another form of shock loading. Shock loads are generally significantly greater than static loads. Any shock loading must be considered when selecting the item for use in a system. **Avoid Shock Loads!**

NEVER EXCEED THE WORKING LOAD LIMIT

****IMPORTANT WARNINGS****

Please Read Before Use Of Any Products

Sold By

Cumberland Sales Company

BASIC INSPECTION CRITERIA FOR SLINGS

The goal of a sling inspection is to evaluate the remaining strength in a sling, which has been used previously, to determine if it is suitable for continued use.

Specific inspection intervals and procedures are required by local safety regulations and by ASTM B30.9. The responsibility for having the inspection done is placed upon the SLING USER.

WIRE ROPE SLINGS (ASME B30.9)

Since a wire rope is a rather complex "machine", no precise rules can be given to determine exactly when a wire rope sling should be replaced. There are many variables, and all must be considered.

A wire rope sling shall be removed from service if conditions such as the following are present:

1. Missing or illegible sling identification.
2. Broken Wires:
 - For strand-laid and single-part slings, 10 randomly distributed broken wires in one rope lay, or 5 broken wires in one strand in one rope lay.
 - For cable-laid slings, 20 broken wires per lay. *For less than eight-part braided slings, 20 broken wires per braid.
 - For eight-part or more than eight-part braided slings, 40 broken wires per braid.
3. Severe localized abrasion or scraping.
4. Kinking, crushing, bird caging, or any other damage resulting in damage to the rope structure.
5. Evidence of heat damage.
6. End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.
7. Severe corrosion of the rope, end attachments, or fittings.
8. For hooks, removal criteria as stated in ASME B30.10.
9. For rigging hardware, removal criteria as stated in ASME B30.26
10. Other conditions, including visible damage, that cause doubt as to the continued use of the sling

NYLON WEB SLINGS (ASME B30.9)

A synthetic webbing sling shall be removed from service if conditions such as the following are present:

1. Missing or illegible sling identification.
2. Acid or caustic burns; Melting or charring of any part of the sling.
3. Holes, tears, cuts, or snags; Excessive abrasive wear.
4. Broken or worn stitching in load bearing splices.
5. Knots in any part of the sling.
6. Discoloration and brittle or stiff areas on any part of the sling, which may mean chemical or ultraviolet/sunlight damage.
7. Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.
8. For hooks, removal criteria as stated in ASME B30.10.
9. For rigging hardware, removal criteria as stated in ASME B30.26
10. Other conditions, including visible damage, that cause doubt as to the continued use of the sling



SAFETY/FALL PROTECTION

Contact Us For Our Full Line Of French Creek Safety Gear

of FALL PROTECTION

shown in the photo:
A. 1702 beam anchor
B. 22850 STRATOS harness
C. M2RG-0Z ROGUE dual-leg self-retracting lifeline (SRL)

A
ANCHORAGE

B
BODY
SUPPORT

C
CONNECTING
DEVICE

FRENCHCREEK
FP
FALL PROTECTION TRAINING

FCP's fall protection/confined space/rescue training programs provide you and your employees with the timely product and knowledge requirements that they need to be productive, safe and in compliance. We offer a variety of training courses, ranging from strictly classroom discussion courses to courses that involve hands-on training. Training can be done at your facility or ours. With our training, your employees will have the skills and knowledge to be safer and compliant with today's laws & regulations.

More info on pages 54-55

3

ABC's of fall protection



SAFETY/FALL PROTECTION

Contact Us For Our Full Line Of French Creek Safety Gear

2

ABC's, fall distance calculator

table of contents

IMPORTANT: The ABC's

Personal fall arrest systems are comprised of three key components. These components must be used together to provide protection from a fall, and are often referred to as the ABC's of fall protection. The ABC's are listed below, and visually shown on page 3.

A Anchorage/Anchor Connector - anchorages are a secure point of attachment to a structure. Anchorages and Anchor Connectors can vary widely by industry, type of work performed, installation environment, and surrounding structure(s).

B Body Support - Full Body Harnesses distribute fall arrest forces over the upper thighs, chest, and shoulders. A full body harness will have a connection point for the worker to be properly attached.

C Connecting Device - Connecting Devices join the Body Support to the Anchorage/Anchor Connector. Connecting devices can be shock absorbing lanyards or retractable lifelines.

Fall Distance Calculator	2	Lifelines, Rope, Rope Accessories	33
ABC's of Fall Protection	2 - 3	Rope Grabs	34
Harness Options & Accessories	4 - 5	Roofers Kits	35
STRATOS Harnesses, NAVIGATOR Harness	6 - 8	Anchors, Anchorage Connectors	35 - 41
STRATOS Lanyards	9	Horizontal Lifeline Systems	42 - 43
Harnesses	6 - 18	Tower, Ladder, Rail Climbing Systems	44
Specialty Harnesses	15 - 17	Cable Climbing Systems	45
Workseats	18	Ladder Lock System	45
The TRACKER (RFID tracking technology)	19	Rescue, Recovery, & Confined Space Systems	46 - 52
Lanyard Options & Accessories	20	Tripods and Accessories	46 - 47
Lanyards	20 - 26	Quad Pod, Davit Systems	48
ANCHOR (Tie-back Lanyard)	23	Controlled Descent Devices	49
U-RES-Q Lanyards (Self-Rescue Lanyard / Ladder)	26	Remote Prompt Rescue Kit	50 - 51
Rebar Assemblies	27	Confined Space Accessories	51
Self Retracting Lifelines (SRL's)	28 - 30	Flexible Access Ladders	52
RENEGADE Self Retracting Lifeline	28	Carry Bags & Pouches	52
ROGUE Self Retracting Lifeline	29	Firefighter Belts (Pacmule Belts)	53
Hardware (Snap Hooks & Carabiners)	31 - 32	Training Programs	54 - 55
"Z Series" Hardware Description (ANSI Z359)	32	DVD Video, Guide to Fall Protection	55

How to Calculate Your

FALL DISTANCE

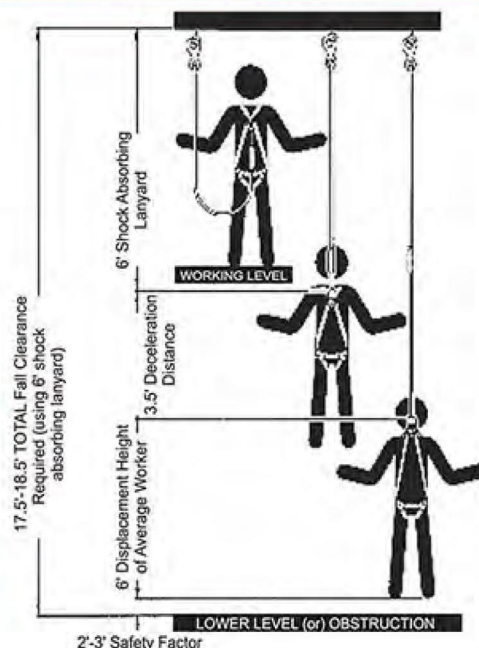
This Diagram explains how to calculate your Fall Distance Clearances, utilizing a standard 6' Shock Absorbing Lanyard

If you are unsure about any of the calculations in this diagram, or you remain uncertain on how to safely protect yourself while working at heights, please contact us immediately.



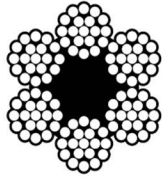
Only trained, competent workers are permitted to work at heights and utilize fall protection equipment. If you need further training, please contact us immediately.

Please read ALL instruction manuals, and follow ALL directions for the proper use of equipment. Always fully understand how to use and inspect the equipment prior to working at heights or in hazardous situations, and ALWAYS have a rescue plan in place.

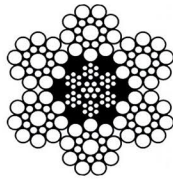




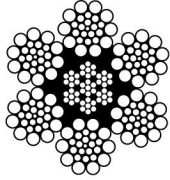
WIRE ROPE /CABLE



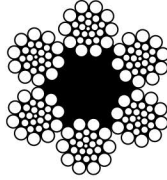
6 x 19 FC



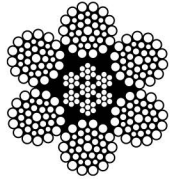
6 x 19 IWRC



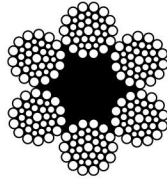
6 x 26WS IWRC



6 x 26WS FC



6 x 36WS IWRC



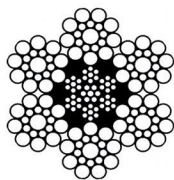
6 x 36WS FC

6 x 19/37 Class Bright Wire Rope

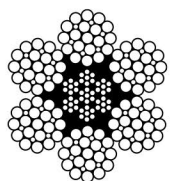
Size (In)	Approx. Wt per ft (Lbs)		Nominal Breaking Load (Lbs)			
			I. P. S.		E. I. P. S.	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	5,480	5,880	6,040	6,880
5/16	0.164	0.18	8,520	9,160	9,380	10,540
3/8	0.236	0.26	12,200	13,120	13,420	15,100
7/16	0.32	0.35	16,540	17,780	18,180	20,400
1/2	0.42	0.46	21,400	23,000	23,600	26,600
9/16	0.53	0.59	27,000	29,000	29,800	33,600
5/8	0.66	0.72	33,400	35,800	36,600	41,200
3/4	0.95	1.04	47,600	51,200	52,400	58,800
7/8	1.29	1.42	64,400	69,200	70,800	79,600
1	1.68	1.85	83,600	89,800	92,000	103,400
1-1/8	2.13	2.34	105,200	113,000	115,800	13,000
1-1/4	2.63	2.89	129,200	138,800	142,000	159,800
1-3/8	3.18	3.50	155,400	167,000	170,800	192,000
1-1/2	3.78	4.16	184,000	197,800	202,000	228,000
1-5/8	4.44	4.88	214,000	230,000	236,000	264,000
1-3/4	5.15	5.67	248,000	266,000	272,000	306,000
1-7/8	5.91	6.50	282,000	304,000	310,000	348,000
2	6.72	7.39	320,000	344,000	352,000	396,000

6 x 19/37 Class Galvanized Wire Rope

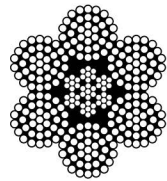
Size (In)	Approx. Wt per ft (Lbs)		Nominal Breaking Load (Lbs)			
			I. P. S.		E. I. P. S.	
	FC	IWRC	FC	IWRC	FC	IWRC
1/4	0.015	0.116	5,480	5,880	6,040	6,880
5/16	0.164	0.18	8,520	9,160	9,380	10,540
3/8	0.236	0.26	12,200	13,120	13,420	15,100
7/16	0.32	0.35	16,540	17,780	18,180	20,400
1/2	0.42	0.46	21,400	23,000	23,600	26,600
9/16	0.53	0.59	27,000	29,000	29,800	33,600
5/8	0.66	0.72	33,400	35,800	36,600	41,200
3/4	0.95	1.04	47,600	51,200	52,400	58,800
7/8	1.29	1.42	64,400	69,200	70,800	79,600
1	1.68	1.85	83,600	89,800	92,000	103,400
1-1/8	2.13	2.34	105,200	113,000	115,800	13,000
1-1/4	2.63	2.89	129,200	138,800	142,000	159,800
1-3/8	3.18	3.50	155,400	167,000	170,800	192,000
1-1/2	3.78	4.16	184,000	197,800	202,000	228,000
1-5/8	4.44	4.88	214,000	230,000	236,000	264,000
1-3/4	5.15	5.67	248,000	266,000	272,000	306,000
1-7/8	5.91	6.50	282,000	304,000	310,000	348,000
2	6.72	7.39	320,000	344,000	352,000	396,000



6 x 19 IWRC



6 x 25 IWRC



6 x 37 IWRC

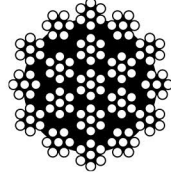
IPS - Improved Plow Steel

EIPS - Extra Improved Plow Steel



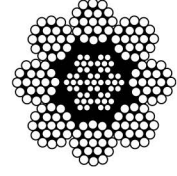
WIRE ROPE /CABLE

19 x 7 Non-Rotating



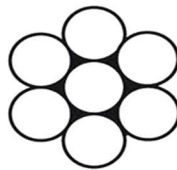
Size (In)	Approx. Wt per ft (Lbs)	Nominal Breaking Load (Lbs)	
		I. P. S.	E. I. P. S.
**3/8	0.18	11,520	13,260
7/16	0.26	15,600	17,940
**1/2	0.45	19,700	21,600
**9/16	0.58	24,800	27,200
**5/8	0.71	30,600	33,600
**3/4	1.02	43,600	48,000
7/8	1.39	59,000	65,000
1	1.82	76,600	84,400
1-1/8	2.30	96,400	106,200
1-1/4	2.84	118,400	130,200
1-3/8	3.43	142,600	156,800
1-1/2	4.08	168,800	185,600

8 x 19 Rotation Resistant



Size (In)	Approx. Wt per ft (Lbs)	Nominal Breaking Load (Lbs)	
		I. P. S.	E. I. P. S.
3/8	0.26	11,520	13,260
7/16	0.36	15,600	17,940
1/2	0.47	20,200	23,200
9/16	0.60	25,600	29,400
5/8	0.73	31,400	36,200
3/4	1.06	45,000	51,800
7/8	1.44	61,000	70,000
1	1.88	79,200	91,000
1-1/8	2.39	99,600	114,600
1-1/4	2.94	112,600	141,000
1-3/8	3.56	147,600	169,800
1-1/2	4.24	174,600	200,000

** Available in Galvanized



1 x 7 Galvanized Steel Strand / Guy Wire

ASTM A 475

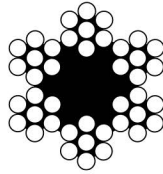
Size (Inch)	Approx. Wt per ft (lbs)	Nominal Breaking Load (Lbs)
3/16	0.073	3990
1/4	0.121	6650
5/16	0.205	11,200
3/8	0.273	15,400
7/8	0.399	20,800
1/2	0.516	26,900



WIRE ROPE /CABLE

6 x 7 Sand Line

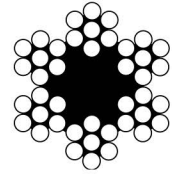
Bright, Polypropylene Core



Size (Inch)	Approx. Wt per ft (Lbs)	Nominal Breaking Load (Lbs)
1/4	0.094	5,280
5/16	0.15	8,200
3/8	0.21	11,720
7/16	0.29	15,860
1/2	0.38	20,600
9/16	0.48	26,000
5/8	0.59	31,800
3/4	0.84	45,400
7/8	1.15	61,400

6 x 7 Trawl Cable

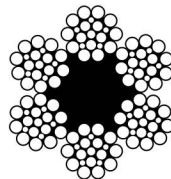
Galvanized, Heavy Lube, Polypropylene Core



Size (Inch)	Approx. Wt per ft (lbs)	Nominal Breaking Load (Lbs)
1/4	0.094	4,760
5/16	0.15	7,380
3/8	0.21	10,540
7/16	0.29	14,280
1/2	0.38	18,540
9/16	0.48	23,400
5/8	0.59	28,600
3/4	0.84	40,800
7/8	1.15	55,200

6 x 21 Drill Line

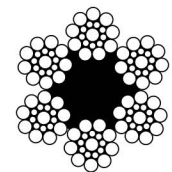
Bright, Heavy Lube, Polypropylene Core



Size (Inch)	Approx. Wt per ft (lbs)	Nominal Breaking Load (Lbs)
3/8	0.236	12,200
7/16	0.32	16,540
1/2	0.42	21,400
9/16	0.53	27,000
5/8	0.66	33,400
3/4	0.95	47,600
7/8	1.29	64,400
1	1.68	83,600
1-1/8	2.13	105,200

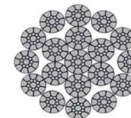
6 x 19S Trawl Cable

Galvanized, Heavy Lube, Polypropylene Core



Size (Inch)	Approx. Wt per ft (lbs)	Nominal Breaking Strength (Lbs)
1/4	0.105	4,940
5/16	0.164	7,660
3/8	0.236	10,980
7/16	0.32	14,880
1/2	0.42	19,260
9/16	0.53	24,300
5/8	0.66	30,000
3/4	0.95	42,800
7/8	1.29	58,000

19 x 19 IWRC Compacted, Bright

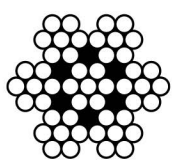


Size (in)	Approx. Wt per ft (Lbs)	Breaking Strength (Lbs)	
		I. P. S.	E. I. P. S.
1/2	0.510	26,600	29,200
9/16	0.647	33,600	37,000
5/8	0.809	41,200	45,400
3/4	1.14	58,800	64,800
7/8	1.56	79,600	87,600
1	2.04	103,400	113,800
1-1/8	2.59	130,000	143,000
1-1/4	3.24	159,800	175,800

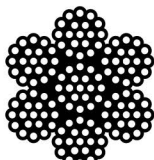


WIRE ROPE /CABLE

Galvanized Cable



7 X 7

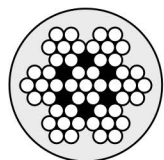


7 x 19

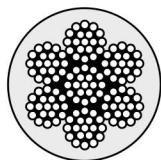
Construction Diameter (in.)	7 x 7		7 x 19	
	Breaking Strength (Lbs)	Weight per 1000 ft (Lbs)	Breaking Strength(Lbs)	Weight per 1000 ft (Lbs)
1/16	480	7.5	-	-
3/32	920	16	1,050	16
1/8	1700	28	2,000	29
5/32	2600	43	2,800	45
3/16	3700	62	4,200	65
7/32	-	-	5,600	86
1/4	6100	105	7,000	110
5/16	-	-	9,800	173
3/8	-	-	14,400	243

Dip Galvanized (HDG), Electro-Galvanized (EG)

PVC Coated Galvanized Cable



7 X 7

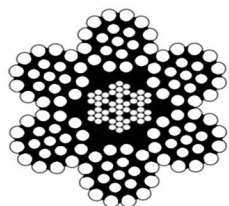


7 x 19

Cable Diameter (in)	Coating Diameter (in)	Cable Construction	Breaking Strength (lbs)	Weight per 1000 ft (lbs)
1/16	3/32	7 x 7	480	9
3/32	1/8	7 x 7	920	18
1/8	3/16	7 x 7	1,700	35
3/16	1/4	7 x 7	3,700	74
1/8	3/16	7 x 19	2,000	36
3/16	1/4	7 x 19	4,200	77
1/4	5/16	7 x 19	7,000	123
5/16	3/8	7 x 19	9,800	197
3/8	7/16	7 x 19	14,400	270

STAINLESS STEEL WIRE ROPE

304 and 316 Grade Available



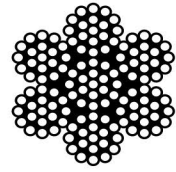
6 X 19 IWRC

Diameter In Inches	Weight Per Foot In LBS	Breaking Strength In LBS
7/16	0.35	16,300
1/2	0.46	22,800
9/16	0.59	28,500
5/8	0.72	35,000
3/4	1.04	49,600
7/8	1.42	66,500
1	1.85	85,400
1 1/8	2.40	106,400
1 1/4	2.90	129,400



STAINLESS STEEL WIRE ROPE

7x19 STAINLESS STEEL CABLE TYPE 304

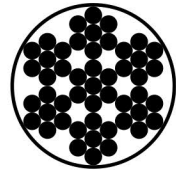


DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
3/32	1.74	920
1/8	2.90	1,760
5/32	4.50	2,400
3/16	6.50	3,700
7/32	8.60	5,000
1/4	11.10	6,400
5/16	17.30	9,000
3/8	24.30	12,000

CABLE TYPE 316

DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
3/32	1.74	810
1/8	2.90	1,530
5/32	4.50	2,110
3/16	6.50	3,210
7/32	8.60	4,350
1/4	11.10	5,600
5/16	17.30	8,200
3/8	24.30	11,000

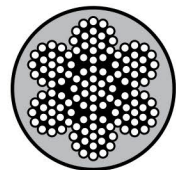
7x7 STAINLESS STEEL PVC COATED CABLE TYPE 304



DIAMETER (IN.)	COATING DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/16	3/32	9.00	480
3/32	1/8	1.80	920
1/8	3/16	3.50	1,722
5/32	1/4	7.40	2,500

DIAMETER (IN.)	COATING DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/16	3/32	9.00	420
3/32	1/8	1.80	810
1/8	3/16	3.50	1,510
5/32	1/4	7.40	2,270

7x19 STAINLESS STEEL CABLE TYPE 316

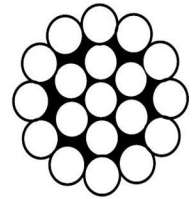


DIAMETER (IN.)	COATING DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/8	3/16	3.60	2000
3/16	1/4	7.70	4200
1/4	5/16	12.30	7000
5/16	3/8	19.70	9800
3/8	7/16	27.00	14400



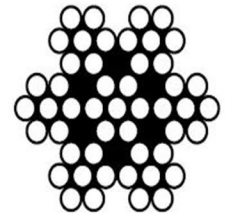
STAINLESS STEEL WIRE ROPE

1x19 STAINLESS STEEL CABLE TYPE 316



DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/16	0.85	480
3/32	2.00	1,070
1/8	3.50	1,760
5/32	5.50	3,000
3/16	7.70	4,270
7/32	10.20	5,730
1/4	13.50	7,460
9/32	21.00	11,800
5/16	30.00	16,500
3/8	54.00	29,500
7/16	69.00	36,100
5/8	85.00	44,970

7x7 STAINLESS STEEL CABLE TYPE 304



DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/16	0.75	480
3/32	1.60	920
1/8	2.80	1,722
5/32	4.30	2,500
3/16	6.20	3,700
7/32	8.30	4,800
1/4	10.60	6,100
5/16	16.70	9,000
3/8	23.60	12,500

CABLE TYPE 316

DIAMETER (IN.)	WEIGHT PER 100FT (LBS)	NOMINAL B. S (LBS)
1/16	0.75	420
3/32	1.60	810
1/8	2.80	1,510
5/32	4.30	2,270
3/16	6.20	3,350
7/32	8.30	4,360
1/4	10.60	5,600
5/16	16.70	8,100
3/8	23.60	11,400



STAINLESS STEEL THIMBLES & TURNBUCKLES

LIGHT DUTY THIMBLE TYPE 316



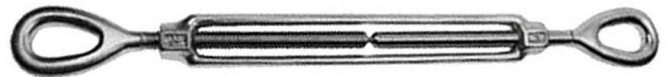
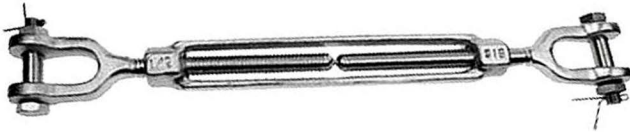
SIZE	WEIGHT	UNIT
1/8"	0.01 LBS	EA
5/32"	0.02 LBS	EA
3/16"	0.04 LBS	EA
1/4"	0.06 LBS	EA
5/16"	0.10 LBS	EA

HEAVY DUTY THIMBLE TYPE 316



SIZE	WEIGHT	UNIT
1/4"	0.08 LBS	EA
5/16"	0.14 LBS	EA
3/8"	0.25 LBS	EA
1/2"	0.53 LBS	EA
5/8"	0.70 LBS	EA
3/4"	1.25 LBS	EA
7/8"	1.46 LBS	EA
1"	2.46 LBS	EA

TURNBUCKLE



SIZE	DESCRIPTION	WEIGHT	UNIT	WORKING LOAD LIMIT
1/4" X 4"	EYE & EYE	0.39 LBS	EA	500 LBS
1/4" X 4"	JAW & JAW	0.60 LBS	EA	500 LBS
1/4" X 4"	JAW & EYE	0.60 LBS	EA	500 LBS
3/8" X 6"	EYE & EYE	0.60 LBS	EA	1,200 LBS
3/8" X 6"	JAW & EYE	0.85 LBS	EA	1,200 LBS
3/8" X 6"	JAW & JAW	0.85 LBS	EA	1,200 LBS
1/2" X 6"	EYE & EYE	1.40 LBS	EA	2,200 LBS
1/2" X 6"	JAW & EYE	1.51 LBS	EA	2,200 LBS
1/2" X 6"	JAW & JAW	1.64 LBS	EA	2,200 LBS
5/8" X 6"	JAW & JAW	2.75 LBS	EA	3,500 LBS
5/8" X 6"	EYE & EYE	2.75 LBS	EA	3,500 LBS
5/8" X 6"	JAW & EYE	2.75 LBS	EA	3,500 LBS
3/4" X 6"	JAW & EYE	4.50 LBS	EA	5,200 LBS
3/4" X 6"	EYE & EYE	3.90 LBS	EA	5,200 LBS
3/4" X 6"	JAW & JAW	4.50 LBS	EA	5,200 LBS



STAINLESS STEEL WIRE ROPE CLIPS

STAINLESS STEEL

WIRE ROPE CLIP PRECISION CAST, D.F. STYLE



SIZE	WEIGHT	UNIT
1/16"	0.02 LBS	EA
1/8"	0.04 LBS	EA
3/16"	0.06 LBS	EA
1/4"	0.10 LBS	EA
5/16"	0.18 LBS	EA
3/8"	0.35 LBS	EA
1/2"	0.52 LBS	EA
5/8"	0.89 LBS	EA
3/4"	1.05 LBS	EA

MALLEABLE CLIP



SIZE	WEIGHT	UNIT
1/8"	0.03 LBS	EA
3/16"	0.06 LBS	EA
1/4"	0.10 LBS	EA
5/16"	0.18 LBS	EA
3/8"	0.35 LBS	EA
1/2"	0.52 LBS	EA
5/8"	0.89 LBS	EA

FIST GRIP CLIP



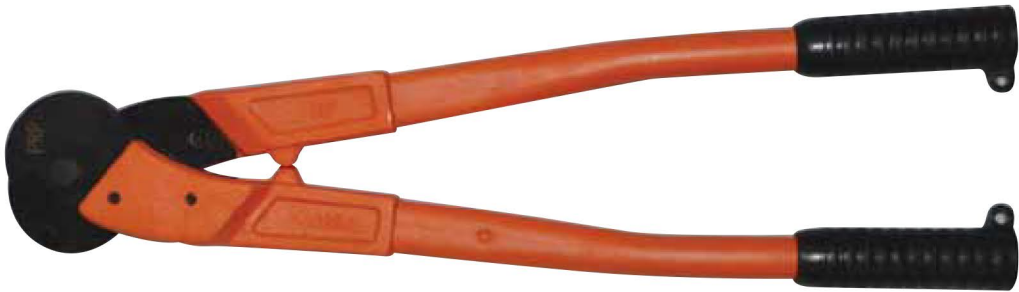
SIZE	WEIGHT	UNIT
5/16"	0.03 LBS	EA
3/8"	0.40 LBS	EA
1/2"	0.62 LBS	EA



WIRE ROPE CUTTER



NAME	CUTTING	LENGTH
RC-8 HAND CABLE CUTTER	UP TO 3/16" CABLE	8"



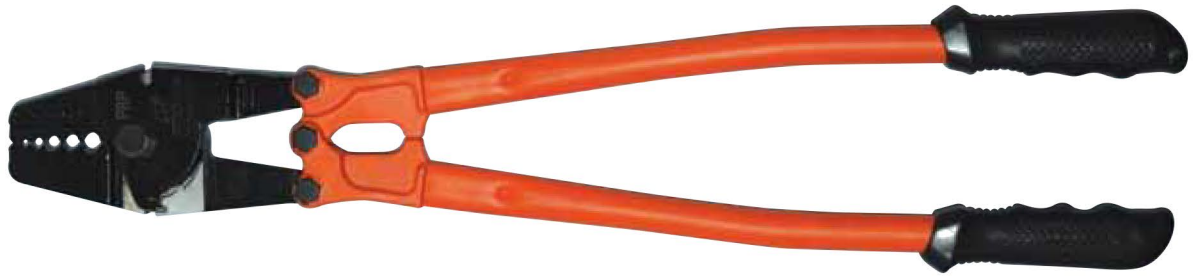
NAME	CUTTING	LENGTH
RC-450 HAND CABLE CUTTER	UP TO 3/8" CABLE	18"



NAME	CUTTING	LENGTH
ALUMINUM HANDLE WIRE ROPE CUTTER	UP TO 1/2" CABLE	18"



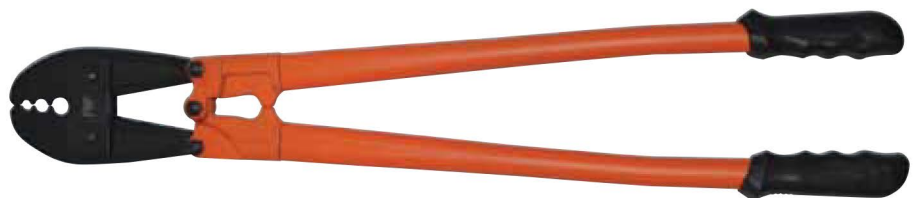
SWAGER/CRIMPER HAND TOOL



NAME	CUTTING	LENGTH
5 CAVITY HAND SWAGER WITH CUTTER UP TO 3/16" CABLE	1/16", 3/32", 1/8" & 3/16"	24



NAME	CUTTING	LENGTH
5 CAVITY BENCH MOUNTED SWAGER WITH CUTTER UP TO 3/16" CABLE	1/16", 3/32", 1/8" & 3/16"	30

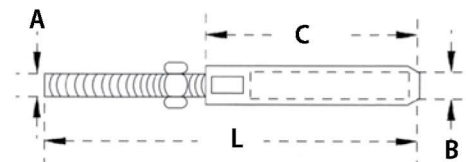


NAME	CUTTING	LENGTH
3 CAVITY HAND SWAGER	5/32", 1/4" & 3/8"	30



STAINLESS STEEL FITTINGS

STAINLESS STEEL SWAGE STUD WITH UNC THREAD TYPE 316



A (SIZE THREAD)	B (Cable)	C	L	After Swage
1/4"-20	1/8"	2"	4"	0.215"
1/4"-20 Left Hand	1/8"	2"	4"	0.215"
1/4"-20	5/32"	2-5/16"	4-3/8"	0.245"
1/4"-20 Left Hand	5/32"	2-5/16"	4-3/8"	0.245"
1/4"-20	3/16"	2-1/2"	4-1/2"	0.310"
1/4"-20 Left Hand	3/16"	2-1/2"	4-1/2"	0.310"
5/16"-18	5/32"	2-3/8"	4-5/8"	0.245"
5/16"-18 Left Hand	5/32"	2-3/8"	4-5/8"	0.245"
5/16"-18	3/16"	2-9/16"	4-7/8"	0.310"
5/16"-18 Left Hand	3/16"	2-9/16"	4-7/8"	0.310"
5/16"-18	1/4"	3-1/8"	5-1/2"	0.435"
5/16"-18 Left Hand	1/4"	3-1/8"	5-1/2"	0.435"
3/8"-16	3/16"	2-9/16"	5-5/16"	0.310"
3/8"-16 Left Hand	3/16"	2-9/16"	5-5/16"	0.310"
3/8"-16	7/32"	2-3/8"	5-1/2"	0.370"
3/8"-16 Left Hand	7/32"	2-3/8"	5-1/2"	0.370"
3/8"-16	1/4"	3-3/16"	6"	0.435"
3/8"-16 Left Hand	1/4"	3-3/16"	6"	0.435"
1/2"-13	1/4"	2-7/8"	6-1/2"	0.435"
1/2"-13 Left Hand	1/4"	2-7/8"	6-1/2"	0.435"
1/2"-13	9/32"	3"	6-5/8"	0.495"
1/2"-13 Left Hand	9/32"	3"	6-5/8"	0.495"
1/2"-13	5/16"	4"	7-5/16"	0.560"
1/2"-13 Left Hand	5/16"	4"	7-5/16"	0.560"
5/8"-11	3/8"	4-3/8"	8-5/8"	0.620"
5/8"-11 Left Hand	3/8"	4-3/8"	8-5/8"	0.620"
3/4"-10	1/2"	5-1/4"	10"	0.745"
3/4"-10 Left Hand	1/2"	5-1/4"	10"	0.745"
7/8"-9	5/8"	7-1/4"	13"	0.995"
7/8"-9 Left Hand	5/8"	7-1/4"	13"	0.995"
1"-8	5/8"	8-3/4"	14"	0.99"-1.00"
1-1/4"-7	3/4"	10-1/2"	16-1/2"	1.23"-1.25"

STAINLESS STEEL HAND SWAGE STUD WITH UNC THREAD TYPE 316

A (SIZE THREAD)	B (Cable)	C	L	After Swage
1/4"-20	1/8"	2"	7-1/2"	0.190"
1/4"-20	3/16"	2-3/8"	8"	0.245"



STAINLESS STEEL FITTINGS

STAINLESS STEEL
EXTRA LONG SWAGE STUD
WITH UNC THREAD (HAND SWAGE)
TYPE 316



A (SIZE THREAD)	B (Cable)	C	L	After Swage
1/4"-20	1/8"	2"	10"	0.190"
1/4"-20	3/16"	2"	10"	0.245"

STAINLESS STEEL HAND
SWAGE LIFELINE STUD
TYPE 316



A (Cable)	B	L	Hole to Drill
1/8"	1/4"-20 x 2-1/2"	4-1/4"	0.25"
1/8"	1/4"-20 x 2-1/2" -Left	4-1/4"	0.25"
3/16"	1/4"-20 x 2-1/2"	4-1/4"	0.30"
3/16"	1/4"-20 x 2-1/2" -Left	4-1/4"	0.30"
1/4"	5/16"-18 x 2-1/2"	4-3/4"	0.44"
1/4"	5/16"-18 x 2-1/2" -Left	4-3/4"	0.44"
1/4"	3/8"-16 x 3"	5-1/4"	0.44"
1/4"	3/8"-16 x 3" -Left	5-1/4"	0.44"

STAINLESS STEEL
LIFE LINE THREADED STUD
TYPE 316

A (Cable)	B	L	After Swage	Hole To Drill	Remark
1/8"	1/4"-20 x 2-1/2"	4-1/4"	0.215"	0.25"	
3/16"	1/4"-20 x 2-1/2"	4-1/4"	0.310"	0.32"	
1/4"	5/16"-18 x 2-1/2"	4-3/4"	0.375"	0.38"	See Below*
1/4"	3/8"-16 x 3	4-3/4"	0.375"	0.38"	See Below*



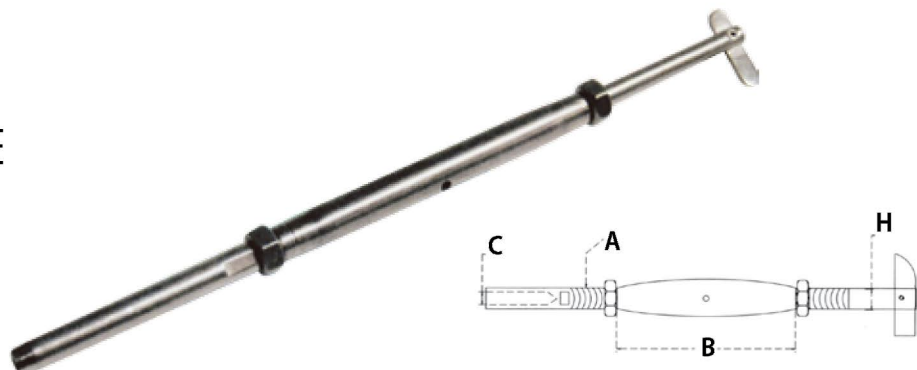
STAINLESS STEEL FITTINGS

STAINLESS STEEL THREAD ROD & SWAGE STUD TURNBUCKLE TYPE 316, MACHINED



A (THREAD)	B	C (Cable)	Remark
3/16	2-5/16	3/32	
1/4	3-3/4	1/8	Hand Swage
1/4	3-3/4	3/16	Hand Swage
1/4	3-3/4	1/8	
1/4	3-3/4	3/16	
5/16	4-3/16	3/16	
5/16	4-3/16	1/4	
3/8	5	3/16	
3/8	5	1/4	
1/2	6	1/4	
1/2	6	5/16	
5/8	7-5/8	3/8	
3/4	8-3/8	1/2	
7/8	10	5/8	

STAINLESS STEEL DROP PIN SWAGE STUD TURNBUCKLE TYPE 316, MACHINED & STAMP

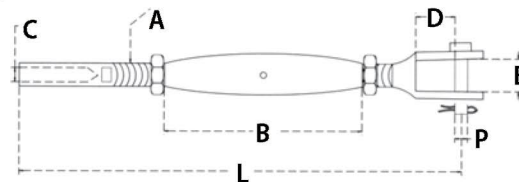
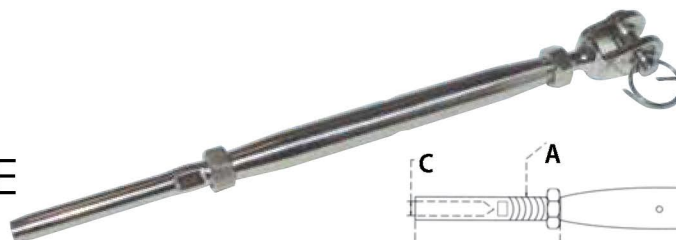


A	B	C (Cable)	H	L	After Swage
1/4"-20	3-3/4	1/8	0.25	7-5/8	0.19
1/4"-21	3-3/4	3/16	0.25	7-5/8	0.25



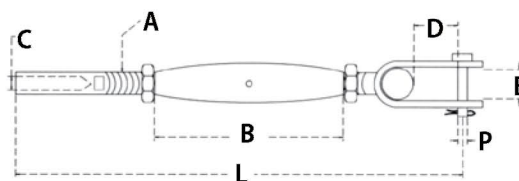
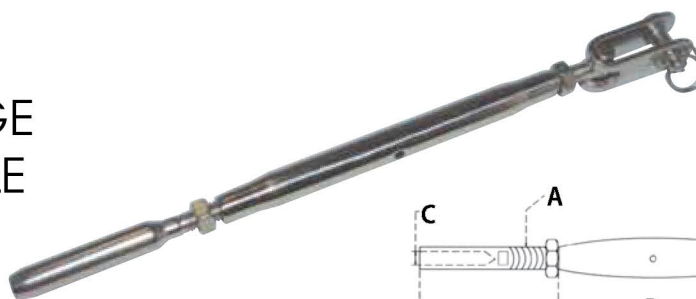
STAINLESS STEEL FITTINGS

STAINLESS STEEL JAW & SWAGE STUD TURNBUCKLE TYPE 316



A (THREAD)	B	C (Cable)	D	E	P	L	Remark
3/16"	2-5/16"	3/32"	0.36"	0.28"	3/16"	6"	
1/4"	3-3/4"	1/8"	0.38"	0.36"	1/4"	6-5/8"	Hand Swage
1/4"	3-3/4"	3/16"	0.38"	0.36"	1/4"	6-3/4"	Hand Swage
1/4"	3-3/4"	1/8"	0.38"	0.36"	1/4"	6-5/8"	
1/4"	3-3/4"	3/16"	0.38"	0.36"	1/4"	6-3/4"	
5/16"	4-3/16"	3/16"	0.42"	0.45"	5/16"	7-1/2"	
5/16"	4-3/16"	1/4"	0.42"	0.45"	5/16"	7-3/4"	
3/8"	5"	3/16"	0.50"	0.50"	11/32"	8-7/8"	
3/8"	5"	1/4"	0.50"	0.50"	11/32"	9-1/4"	
1/2"	6"	1/4"	0.85"	0.60"	7/16"	11"	
1/2"	6"	5/16"	0.85"	0.60"	7/16"	11-1/2"	
5/8"	7-5/8"	3/8"	1"	0.68"	5/8"	14-3/8"	
3/4"	8-3/8"	1/2"	1.16"	0.80"	3/4"	16-3/8"	

STAINLESS STEEL TOGGLE & SWAGE STUD TURNBUCKLE TYPE 316

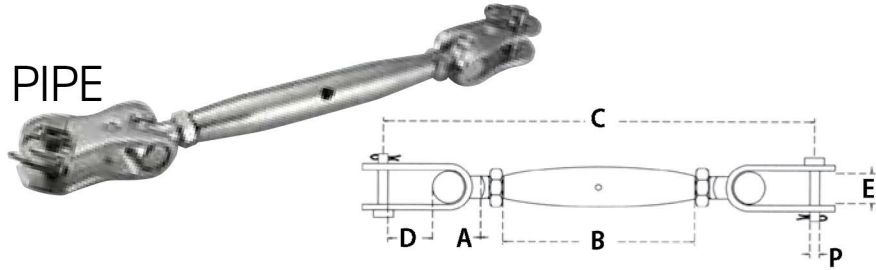


A (THREAD)	B	C (Cable)	D	E	P	L	Remark
3/16"	2-5/16"	3/32"	0.58"	0.25"	0.18"	6-1/4"	
1/4"	3-3/4"	1/8"	0.96"	0.40"	0.23"	7"	Hand Swage
1/4"	3-3/4"	3/16"	0.96"	0.40"	0.23"	7-1/8"	Hand Swage
1/4"	3-3/4"	1/8"	0.96"	0.40"	0.23"	7"	
1/4"	3-3/4"	3/16"	0.96"	0.40"	0.23"	7-1/8"	
5/16"	4-3/16"	3/16"	0.96"	0.40"	0.23"	8"	
5/16"	4-3/16"	1/4"	0.96"	0.40"	0.23"	8-1/4"	
3/8"	5"	3/16"	1.20"	0.52"	0.36"	9-1/8"	
3/8"	5"	1/4"	1.20"	0.52"	0.36"	9-1/2"	
1/2"	6"	1/4"	1.20"	0.53"	0.46"	11-3/4"	
1/2"	6"	5/16"	1.20"	0.53"	0.46"	12-1/4"	
5/8"	7-5/8"	3/8"	1.50"	0.76"	0.63"	16-7/8"	
3/4"	8-3/8"	1/2"	2.10"	0.83"	0.75"	17-1/8"	



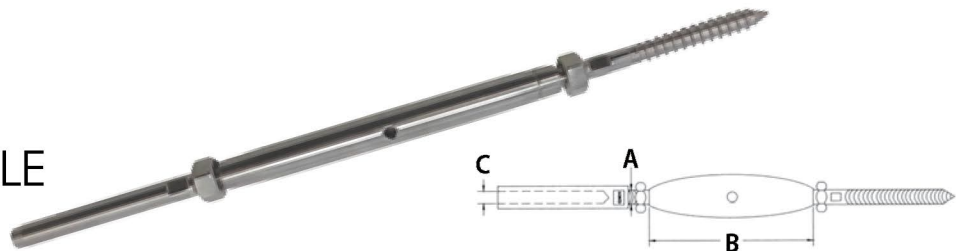
STAINLESS STEEL FITTINGS

STAINLESS STEEL
TOGGLE & TOGGLE PIPE
TURNBUCKLE WITH
UNC THREAD
TYPE 316



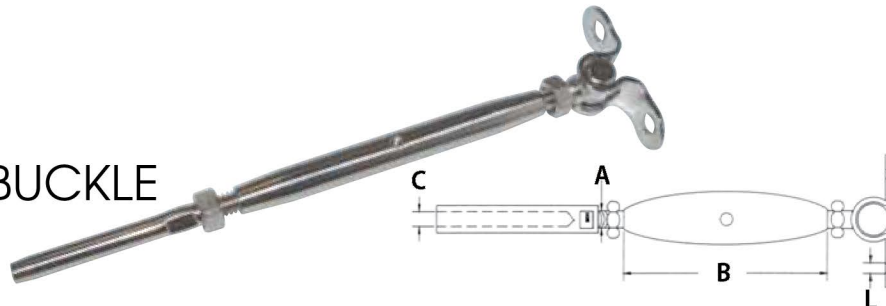
A	B	C	D	E	WLL (lb)
3/16"	2-5/16"	5-1/4"	3/16"	1/4"	320
1/4"	3-3/4"	5-3/4"	1/4"	5/16"	450
5/16"	4-3/16"	7-5/16"	5/16"	3/8"	850
3/8"	5"	8-1/2"	3/8"	7/16"	1250
1/2"	6"	10"	1/2"	1/2"	1650
5/8"	7-5/8"	13-5/8"	5/8"	5/8"	3000
3/4"	8-3/8"	15-5/16"	3/4"	3/4"	3500

STAINLESS STEEL
LAG & SWAGE
STUD TURNBUCKLE
TYPE 316



SIZE THREAD	B	CABLE	Remark
1/4"-20	3-3/4"	1/8"	Hand Swage
1/4"-20	3-3/4"	3/16"	Hand Swage
1/4"-20	3-3/4"	1/8"	
1/4"-20	3-3/4"	3/16"	
5/16"-18	4-3/16"	3/16"	
5/16"-18	4-3/16"	1/4"	
3/8"-16	5"	1/4"	

STAINLESS STEEL
DECK TOGGLE &
SWAGE STUD TURNBUCKLE
TYPE 316

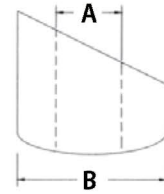


A (THREAD)	B	C (Cable)	Screw Size	Remark
1/4"-20	3-3/4"	1/8"	0.38"	Hand Swage
1/4"-20	3-3/4"	3/16"	0.38"	Hand Swage
1/4"-20	3-3/4"	1/8"	0.38"	
1/4"-20	3-3/4"	3/16"	0.38"	
5/16"-18	4-3/16"	3/16"	0.45"	
5/16"-18	4-3/16"	1/4"	0.45"	
3/8"-16	5"	1/4"	0.50"	



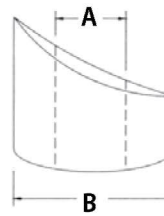
STAINLESS STEEL FITTINGS

STAINLESS STEEL
ANGLE WASHER
TYPE 316, MACHINED



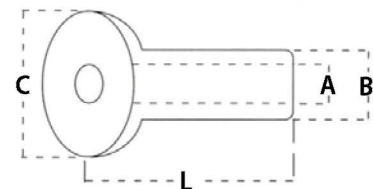
SIZE	A	B
1/4	1/4	5/8
5/16	5/16	11/16
5/8	3/8	11/16

STAINLESS STEEL
ANGLE WASHER
TYPE 316



SIZE	POST	A	B
1/4	1-1/2	1/4	5/8
1/4	2	1/4	5/8
5/16	1-1/4	5/16	5/8
5/16	2	5/16	5/8
5/16	1-1/4	5/16	11/16
5/16	2	5/16	11/16
3/8	1-1/2	3/8	11/16
3/8	2	3/8	11/16

STAINLESS STEEL
PROTECTIVE SLEEVE
TYPE 316

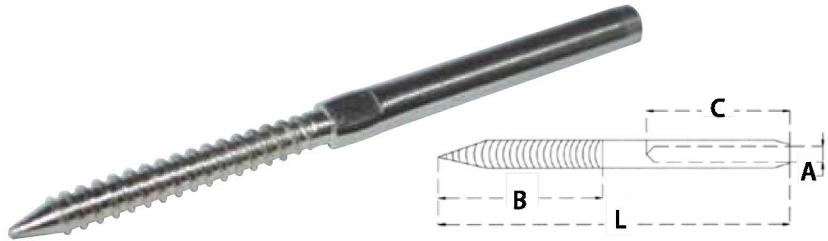


A	B	C	L
0.21	0.275	0.5	0.78



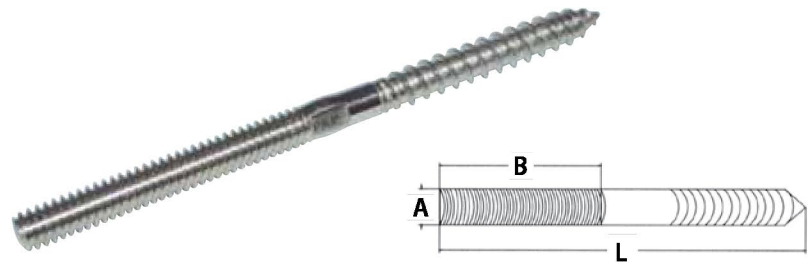
STAINLESS STEEL FITTINGS

STAINLESS STEEL LAG SWAGE STUD (HAND SWAGE) TYPE 316



A (Cable)	B	C	L
1/8	2	1.35	3.92
3/16	2	1.35	4.32

STAINLESS STEEL HANGER BOLT TYPE 316



THREAD (A)	B	L
1/4"-20 Left Hand	1-3/4"	3-3/4"
5/16"-18 Left Hand	2-1/4"	5"
3/8"-16 Left Hand	2-1/4"	5-1/2"

STAINLESS STEEL SWAGE DECK TOGGLE TYPE 316



A (Cable)	B	C	D	After Swage
1/8"	0.25"	1.30"	3"	0.215"
3/16"	0.32"	1.30"	3-3/4"	0.310"
1/4"	0.36"	1.56"	5"	0.435"

STAINLESS STEEL HAND SWAGE DECK TOGGLE TYPE 316

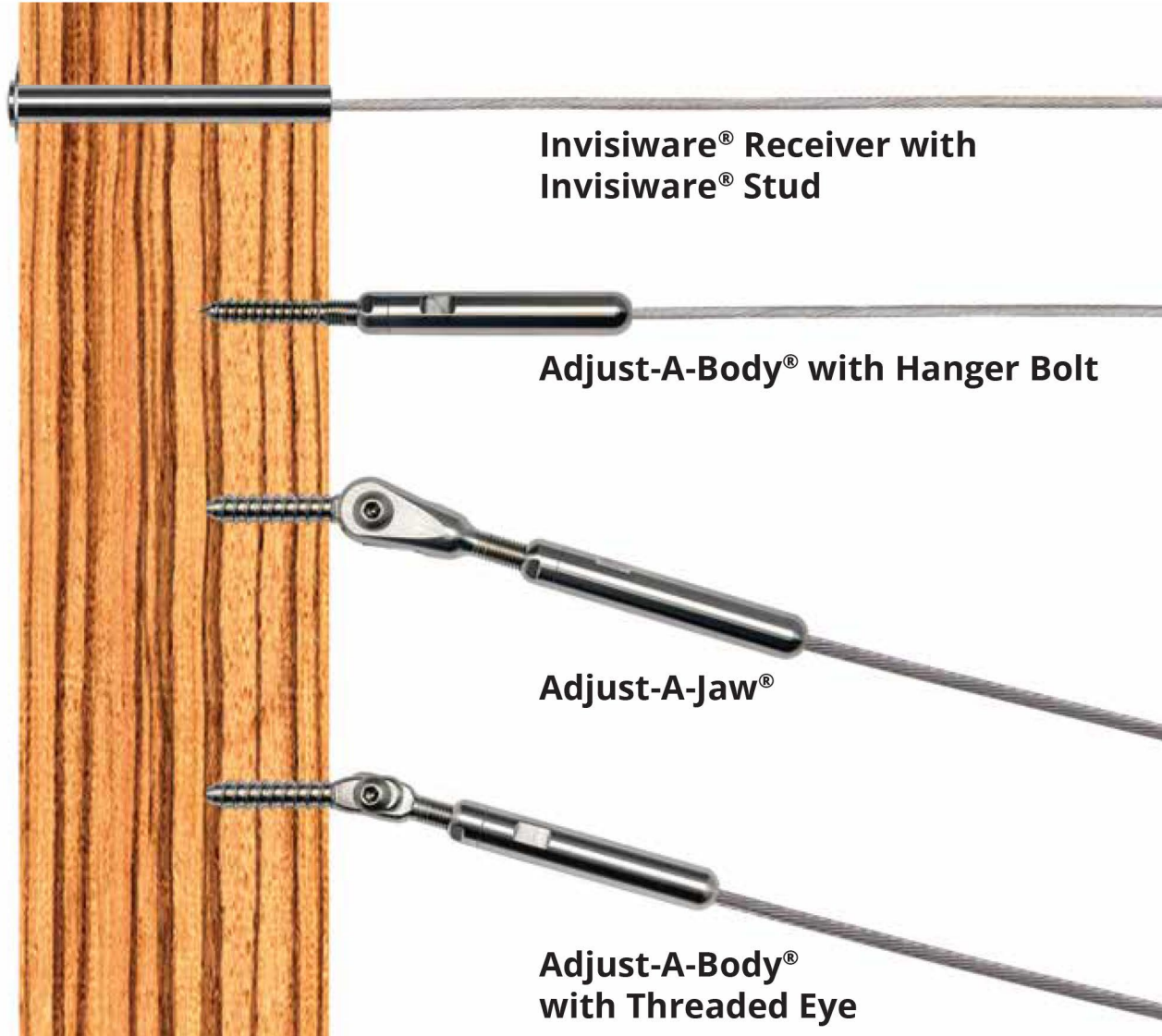
A (Cable)	B	C	L
1/8"	0.25"	1.30"	3"
3/16"	0.25"	1.30"	3-3/4"



STAINLESS STEEL FITTINGS

HARDWARE FOR WOOD POSTS AND WOOD POSTS WITH SLEEVES

SWAGED TENSIONING FITTINGS



SWAGING REQUIRED: These fittings must be attached with swaging equipment capable of developing proper force based on the fittings' mass. Special equipment is required.



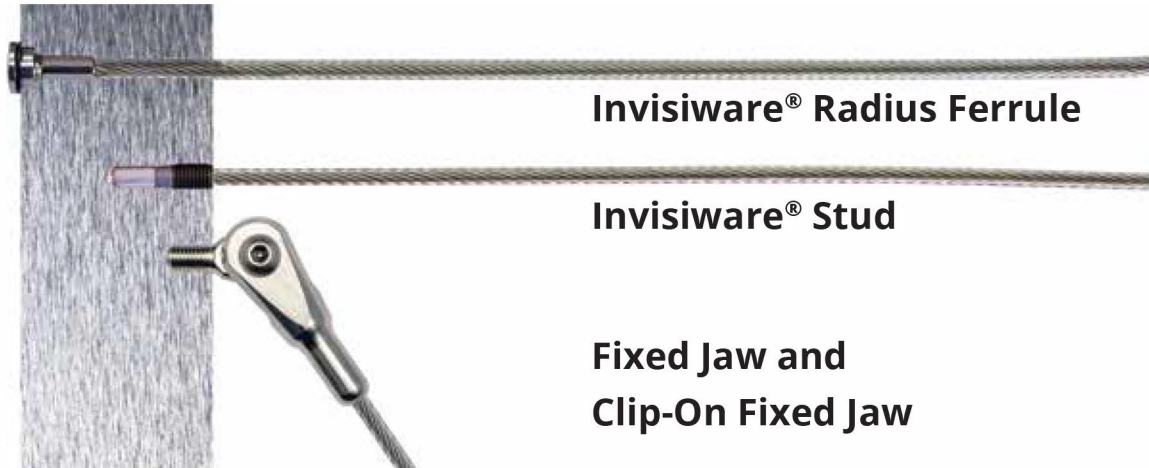
TENSIONING DEVICE: A fitting with this symbol is a tensioning fitting. Each individual cable must have at least one tensioning fitting in order to be properly installed and tensioned.



STAINLESS STEEL FITTINGS

HARDWARE FOR METAL POSTS

SWAGED NON-TENSIONING FITTINGS



Invisiware® Radius Ferrule

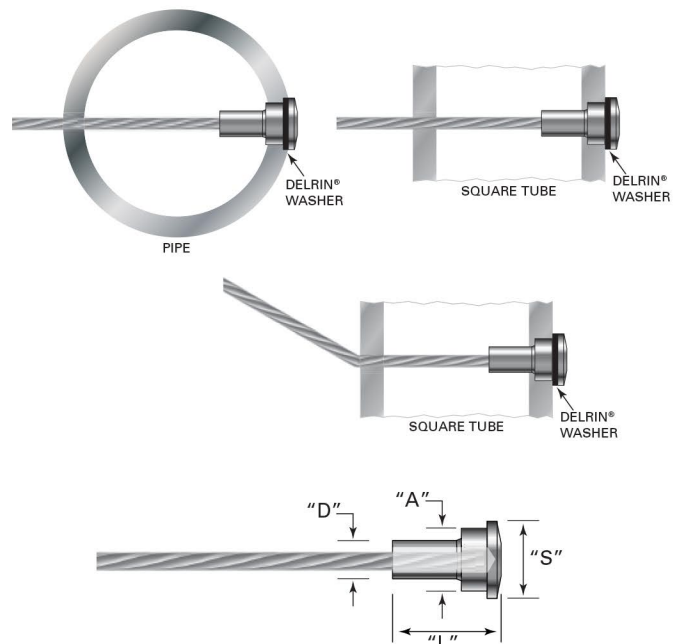


The Invisiware® Radius Ferrule is a concealed, swaged, non-tensioning, through-the-post-mounted fitting that is suitable for pitched or level runs. This fitting is available for 1/8", 3/16", 1/4", 5/16", and 3/8" diameter 1x19 stainless steel cable.

The Invisiware® Radius Ferrule must be used with a tensioning fitting on the opposite end of the run. It is the least expensive through-the-post fitting that we offer. This fitting has a head shaped to appear like the Invisiware® Receiver from the outside of the post (like the Invisiware® Receiver, the Invisiware® Radius Ferrule is concealed within the post). For these two reasons it is recommended to use the Invisiware® Radius Ferrule on one end of your cable run and an Invisiware® Receiver and Stud on the opposite end whenever practical to do so. The only reason not to consider this fitting as your non-tensioning end would be if you preferred to use a non-swaged solution.

This fitting installs into a hole drilled through the face of the post (to accommodate the cable at minimum) and a hole through the back side of the post to accommodate the fitting (see our *Hardware Mounting / Hole Boring Guide*). It also requires that you have at least 2" of clearance on the back side of your end post (the cable would likely be attached to the Radius Ferrule prior to installing it through the back side of the post). This fitting is furnished with a Delrin® washer that is installed between the shoulder of the fitting and the end post to protect the surface of the finish of the end post as tension is applied.

Using this fitting on pitched applications for 1/8" and 3/16" cable sizes simply requires kinking the cable where it exits the face of the post after initial tensioning. A kink is achieved by placing a piece of wood onto the cable where it exits the face of the post and striking it lightly with a hammer to create the kink.



TYPE 316 STAINLESS STEEL

CABLE DIA.	PART NO.	"D" DIA. AFTER SWAGED	"L" LENGTH AFTER SWAGED	"S" HEAD DIA.	"A" SHOULDER DIA.
1/8"	RF-4	.250"	.750"	.537"	.437"
3/16"	RF-6	.250"	.750"	.537"	.437"
1/4"	RF-8	.375"	1.000"	.646"	.531"
5/16"	RF-10	.500"	1.000"	.865"	.687"
3/8"	RF-12	.500"	1.000"	.865"	.687"





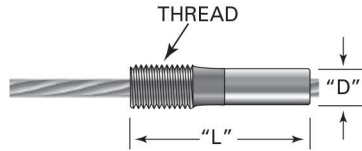
STAINLESS STEEL FITTINGS

Invisiware® Stud



Photo of stud before swaging.

This part is swaged onto the end of the cable and used with the Invisiware® Receiver. The threaded surface is coated with a baked-on molybdenum-based dry film lubricant, to prevent the threads from galling when tensioned.



TYPE 316 STAINLESS STEEL — MOLY COATED

CABLE DIA.	PART NO.	THREAD	"L"	"D" DIAMETER AFTER SWAGING
1/8"	S-4	5/16-24	1.180"	.250"
3/16"	S-6	5/16-24	1.140"	.250"
1/4"	S-8	7/16-20	1.380"	.375"
5/16"	S-10	9/16-18	1.330"	.500"
3/8"	S-12	9/16-18	1.310"	.500"

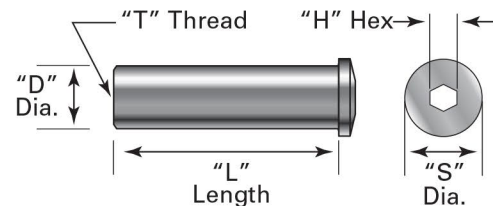
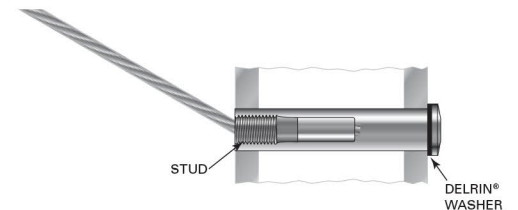
Invisiware® Receiver with Invisiware® Stud



The Invisiware® Receiver with Invisiware® Stud combination is a concealed, swaged, tensioning, through-the-post-mounted fitting that is suitable for level runs. Receivers and studs are available for 1/8", 3/16", 1/4", 5/16", and 3/8" diameter 1x19 stainless steel cable; 1/8" and 3/16" sizes are also suitable for pitched applications.

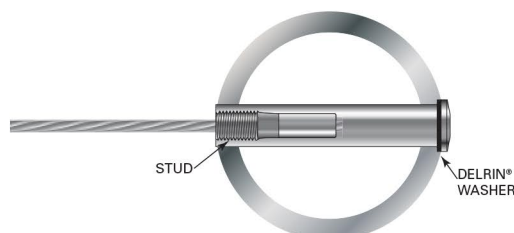
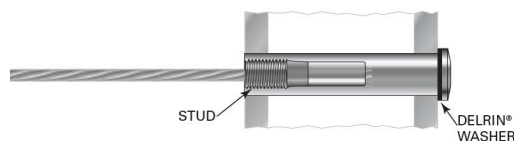
The Invisiware® Receiver with Invisiware® Stud can be used with any other fitting on the opposite end of the run. This fitting is placed and concealed within a pre-drilled hole in the metal end post. The Receiver is furnished with a Delrin® washer that is installed between the shoulder of the fitting and the end post to protect the surface of the finish of the end post as tension is applied. The stud is swaged onto one end of the cable and is inserted and threaded into the Receiver installed in the end post. Tension is created by rotating the Receiver (with a hex wrench inserted into its broached end) and drawing the Stud into the Receiver.

This fitting in 1/8" and 3/16" cable sizes can also be used in pitched applications using the same method (including a horizontally drilled hole) described previously. This fitting is commonly paired with a Pull-Lock® on the opposite end of the run. The Receiver/Pull-Lock® terminal combination is available in our 1/8" and 3/16" kit offerings.



INVISIWARE® RECEIVER DIMENSIONS

Cable Diameter	1/8" cable	3/16" cable	1/4" cable	5/16" cable	3/8" cable
Part Number	R-6-XX	R-6-XX	R-8-XX	R-12-XX	R-12-XX
"D" Diameter	.437"	.437"	.531"	.687"	.687"
"T" Thread	5/16-24	5/16-24	7/16-20	9/16-18	9/16-18
"H" Hex	3/16"	3/16"	7/32"	5/16"	5/16"
"S" Diameter	.537"	.537"	.646"	.865"	.865"
"L" Length	See "FRAMING OPTIONS" Table				



FRAMING OPTIONS FOR INVISIWARE® RECEIVER

Cable Diameter	1/8" cable	3/16" cable	1/4" cable	5/16" cable	3/8" cable	"L" Length
FRAME OPTIONS	PART NO.	PART NO.	PART NO.	PART NO.	PART NO.	
1-1/2" Tube* or 1-1/4" Pipe	R-6-12	R-6-12	NA	NA	NA	1.56"
1-1/2" Pipe	R-6-22	R-6-22	R-8-22	NA	NA	1.81"
2"x2" Tube*	R-6-32	R-6-32	R-8-32	R-12-32	R-12-32	2.03"
2" Pipe	R-6-42	R-6-42	R-8-42	R-12-42	R-12-42	2.30"
2-3/8" Tube*	R-6-72	R-6-72	NA	NA	NA	2.405"
2-1/2" Tube*	R-6-82	R-6-82	NA	NA	NA	2.53"
3" Tube*	R-6-52	R-6-52	R-8-52	R-12-52	R-12-52	3.03"
3-1/2" Tube*	R-6-62	R-6-62	NA	NA	NA	3.5625"

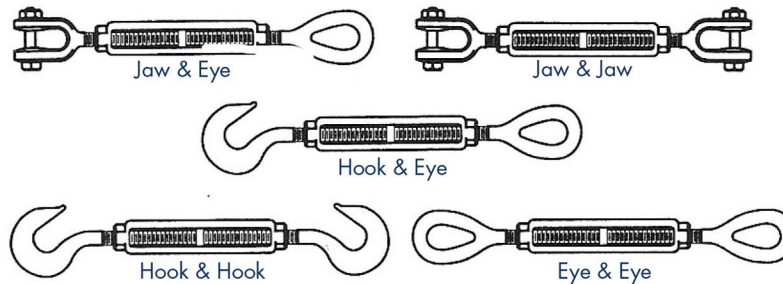
*Round or Square Tube



GALVANIZED TURNBUCKLES

CAUTION: Never Exceed The Working Load Limit

Read important warnings and information preceding fittings section



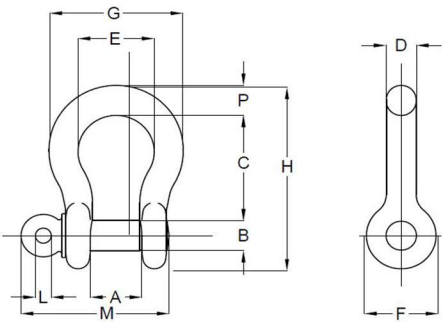
According to Federal Specification FF-T-791b. Hot galvanized, drop forged.

Size (Diameter x Take-Up)	Approx. Weight each In Pounds			Working Load Limit in Pounds		Average Overall Length with Ends in Closed Position
	Eyes and/ or Hooks	Jaw & Eye	Jaw & Jaw	Hook & Hook Hook & Eye	Eye & Eye Jaw & Jaw	
1/4" x 4"	.3	.3	.4	400	500	8.25
5/16" x 4 1/2"	.5	.53	.58	700	800	9.56
3/8" x 6"	.75	.82	.93	1,000	1,200	11.88
1/2" x 6"	1.5	1.62	1.68	1,500	2,200	13.31
1/2" x 9"	1.75	1.82	1.85	1,500	2,200	16.31
1/2" x 12"	2.18	2.19	2.2	1,500	2,200	19.31
5/8" x 6"	2.63	2.69	2.82	2,250	3,500	15.50
5/8" x 9"	3.00	3.01	3.25	2,250	3,500	18.50
5/8" x 12"	3.25	3.5	3.75	2,250	3,500	21.50
3/4" x 6"	3.75	4.25	4.68	3,000	5,200	17.00
3/4" x 9"	4.5	5.00	5.38	3,000	5,200	20.00
3/4" x 12"	5.75	5.75	6.12	3,000	5,200	23.00
3/4" x 18"	7.00	7.25	7.75	3,000	5,200	29.00
7/8" x 12"	8.38	8.88	9.38	4,000	7,200	24.63
7/8" x 18"	10.25	10.6	11.44	4,000	7,200	30.63
1" x 6"	10.75	11.1	11.8	5,000	10,000	20.63
1" x 12"	11.25	12	12.88	5,000	10,000	26.63
1" x 18"	14	14.75	16.1	5,000	10,000	32.63
1" x 24"	17	17.75	18.36	5,000	10,000	38.63
1 1/4" x 12"	19	21.2	23.6	5,000	15,200	29.88
1 1/4" x 18"	24.1	26	26.6	5,000	15,200	35.88
1 1/4" x 24"	25	28.7	31.2	5,000	15,200	41.88
1 1/2" x 12"	27	31.1	35.5	7,500	21,400	32.38
1 1/2" x 18"	31.2	36.4	40.7	7,500	21,400	38.38
1 1/2" x 24"	38.2	44.2	47.6	7,500	21,400	44.38
1 3/4" x 18"	53	57.5	62	-	28,000	41.38
1 3/4" x 24"	58	60	64	-	28,000	47.75
2" x 24"	90	102	115	-	37,000	51.75
2 1/2" x 24"	163	180	200	-	60,000	58.50
2 3/4" x 24"	180	214	248	-	75,000	61.50



SCREW PIN ANCHOR SHACKLE AND BOLT TYPE SHACKLE

- load rated Shackles per the following:
- Marked with Size & Working Load Limit in Tons
 - Average Breaking Strength is 6 Times Working Load Limit
 - Forged Heat Treated with Alloy Pins
 - Federal Specifications RR-C-271D



	nominal Shackle Size (a)	Working load limit (lbs)	dimensions in inches				approx. Weight Per Piece (lbs)
			inside length (b)	inside Width		diameter	
				at Pin (C)	at bow (d)	Pin (e)	
	3/16"	667	7/8"	3/8"	9/16"	1/4"	0.05
	1/4"	1,000	1-1/8"	15/32"	3/4"	5/16"	0.12
	5/16"	1,500	1-1/4"	17/32"	13/16"	3/8"	0.18
	3/8"	2,000	1-7/16"	21/32"	15/16"	7/16"	0.3
	7/16"	3,000	1-11/16"	23/32"	1-1/16"	1/2"	0.49
	1/2"	4,000	1-7/8"	13/16"	1-3/16"	5/8"	0.74
	5/8"	6,500	2-13/32"	1-1/16"	1-1/2"	3/4"	1.44
	3/4"	9,500	2-27/32"	1-1/4"	1-3/4"	7/8"	2.16
	7/8"	13,000	3-5/16"	1-7/16"	2"	1"	3.37
	1"	17,000	3-3/4"	1-11/16"	2-15/16"	1-1/8"	5.3
	1-1/8"	19,000	4-1/4"	1-13/16"	2-5/8"	1-1/4"	7
	1-1/4"	24,000	4-11/16"	2-1/32"	2-7/8"	1-3/8"	9.6
	1-3/8"	27,000	5-1/4"	2-1/4"	3-1/4"	1-1/2"	12.6
	1-1/2"	34,000	5-3/4"	2-3/8"	3-3/8"	1-5/8"	17.3
	1-3/4"	50,000	7"	2-7/8"	4-1/2"	2"	27.8
	2"	70,000	7-3/4"	3-1/4"	5-1/4"	2-1/4"	41.1



EYEBOLT

Forged Shoulder Machinery Eye Bolt

Thread x Length	Eye	WLL	N.W
inch	inch	lbs	kg
1/4 x 1	1/2	650	0.02
5/16 x 1-1/8	5/8	1200	0.03
3/8 x 1-1/4	3/4	1550	0.06
1/2 x 1-1/2	1	2600	0.11
5/8 x 1-3/4	1-1/4	5200	0.23
3/4 x 2	1-1/2	7200	0.40
7/8 x 2-1/4	1-3/4	10600	0.68
1 x 2-1/2	2	13300	1.00
1-1/4 x 3	2-1/2	21000	1.73
1-1/2 x 3-1/2	3	24000	3.20

Minimum Breaking Load = 5 x Working Load Limited



Forged Eye Bolt, metric thread

Size	Shaft	Eye	WLL
mm	mm	mm	kgs
M8	15	20	80
M10	18	25	150
M12	22	30	220
M16	27	35	450
M20	30	40	630
M24	38	50	950
M30	45	60	1500
M36	55	70	2300



Forged Shoulder Eye Bolt, Hot dip galv.

Thread x Length	WLL	Eye	Overall	N.W.
inch	lbs	inch	inch	kg
1/4x2	500	0.50	3.06	0.06
1/4x4	500	0.50	5.06	0.09
5/16x2-1/4	800	0.62	3.56	0.13
5/16x4-1/4	800	0.62	5.56	0.19
3/8x2-1/2	1200	0.75	4.12	0.32
3/8x4-1/4	1200	0.75	6.12	0.38
1/2x3-1/4	2200	1.00	5.38	0.56
1/2x6	2200	1.00	8.12	0.56
5/8x4	3500	1.25	6.69	0.75
5/8x6	3500	1.25	8.69	1.00
3/4x4-1/2	5200	1.50	7.69	1.25
3/4x6	5200	1.50	9.19	1.50
7/8x5	7200	1.75	8.75	2.25
1x6	10000	2.00	10.31	3.75
1x9	10000	2.00	13.31	4.30
1-1/4x8	15200	2.50	13.38	6.50
1-1/4x12	15200	2.50	17.38	7.75
1-1/2x15	21400	3.00	20.75	14.25

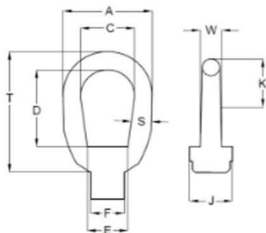


Forged Regular Eye Bolt, Hot dip galv.

Thread x Length	WLL	Eye	Overall	N.W.
inch	lbs	inch	inch	kg
1/4x2	500	0.50	3.06	0.06
1/4x3	500	0.50	4.06	0.10
1/4x4	500	0.60	5.06	0.14
5/16x2-1/4	800	0.62	3.56	0.19
5/16x4-1/4	800	0.62	5.56	0.25
3/8x2-1/2	1200	0.75	4.12	0.24
3/8x3	1200	0.75	4.50	0.31
3/8x4	1200	0.75	5.52	0.34
3/8x4-1/2	1200	0.75	6.12	0.38
3/8x6	1200	0.75	7.62	0.44
3/8x8	1200	0.75	9.62	0.54
1/2x2	2200	1.00	4.15	0.43
1/2x3-1/4	2200	1.00	5.38	0.50
1/2x4	2200	1.00	6.12	0.51
1/2x4-1/2	2200	1.00	6.62	0.53
1/2x6	2200	1.00	8.12	0.63
1/2x8	2200	1.00	10.12	0.75
1/2x10	2200	1.00	12.12	0.88
1/2x12	2200	1.00	14.12	1.00
5/8x4	3500	1.25	6.69	1.01
5/8x4-1/2	3500	1.25	7.19	1.08
5/8x6	3500	1.25	8.69	1.20
5/8x8	3500	1.25	1.69	1.31
5/8x10	3500	1.25	12.69	1.63
5/8x12	3500	1.25	14.69	1.75
3/4x4	5200	1.50	7.19	1.55
3/4x4-1/2	5200	1.50	7.69	1.65
3/4x6	5200	1.50	9.19	1.80
3/4x8	5200	1.50	11.19	2.00
3/4x10	5200	1.50	13.19	2.38
3/4x12	5200	1.50	15.19	2.52
3/4x15	5200	1.50	18.19	3.00
7/8x5	7200	1.75	8.75	2.75
7/8x8	7200	1.75	11.75	3.25
7/8x12	7200	1.75	15.75	4.00
1x6	10000	2.00	10.31	4.25
1x9	10000	2.00	13.31	4.52
1x12	10000	2.00	16.31	5.50
1x18	10000	2.00	22.31	6.50
1-1/4x8	15200	2.50	13.38	7.50
1-1/4x12	15200	2.50	17.38	9.00
1-1/4x20	15200	2.50	25.38	11.50



Forged Eye Nuts



Drop Forged Hot Dipped Galvanized												
Meets or exceeds all requirements of ASME B30.26												
Tap Size	Dimensions (in)											WLL (LBS)
	A	C	D	E	F	J	K	N	T	W		Weight Per Piece
1/4	1.25	0.75	1.00	0.75	0.50	0.69	0.63	0.46	1.72	0.31	520	0.09
3/8	1.62	1.00	1.20	0.83	0.56	0.81	0.89	0.58	2.09	0.41	1250	0.17
1/2	2.00	1.25	1.44	1.08	0.81	1.00	1.09	0.73	2.55	0.50	2250	0.28
5/8	2.50	1.50	1.92	1.35	1.00	1.31	1.31	0.83	3.25	0.69	3600	0.60
3/4	3.00	1.75	2.28	1.59	1.12	1.50	1.57	1.05	3.96	0.84	5200	1.00
7/8	3.50	2.00	2.50	1.96	1.38	1.88	1.77	1.14	4.40	1.00	7200	1.65

Forged Steel Hot Galvanized.

NEVER EXCEED PUBLISHED WORKING LOAD LIMIT. ALWAYS READ AND UNDERSTAND THE GENERAL WARNINGS AND



WIRE ROPE CLIP

MALLEABLE WIRE ROPE CLIPS* (ELECTRO GALV.)

*WARNING: NOT TO BE USED FOR OVERHEAD LIFTING!



SIZE	WEIGHT	UNIT	BOX QTY	MINIMUM NO. OF CLIPS REQUIRED	TORQUE IN FT LBS	STOCK NO.
1/16"	0.03 LBS	EA	100	3	2	186002
1/8"	0.04 LBS	EA	100	3	3	186004
3/16"	0.063 LBS	EA	100	3	5	186006
1/4"	0.13 LBS	EA	100	3	15	186008
5/16"	0.15 LBS	EA	100	3	15	186010
3/8"	0.21 LBS	EA	100	3	30	186012
7/16"	0.24 LBS	EA	100	4	40	186014
1/2"	0.37 LBS	EA	100	4	45	186016
9/16"	0.59 LBS	EA	100	4	50	186018
5/8"	0.50 LBS	EA	50	4	75	186020
3/4"	0.75 LBS	EA	50	5	75	186024
7/8"	1.25 LBS	EA	50	5	130	186028
1"	1.50 LBS	EA	40	6	130	186032
1 1/8"	2.40 LBS	EA	40	7	200	186036
1 1/4"	2.60 LBS	EA	10	8	225	186040
1 3/8"	4.50 LBS	EA	10	8	275	186044
1 1/2"	5.00 LBS	EA	10	9	325	186048

DROP FORGED WIRE ROPE CLIPS (H.D. GALV.)



SIZE	WEIGHT	UNIT	BOX QTY	MINIMUM NO. OF CLIPS REQUIRED	TORQUE IN FT LBS.	STOCK NO.
1/8"	0.06 LBS	EA	100	2	4.5	183004
3/16"	0.10 LBS	EA	100	2	7.5	183006
1/4"	0.22 LBS	EA	100	2	15	183008
5/16"	0.33 LBS	EA	100	2	30	183010
3/8"	0.49 LBS	EA	100	2	45	183012
7/16"	0.70 LBS	EA	100	2	65	183014
1/2"	0.74 LBS	EA	100	3	65	183016
9/16"	1.00 LBS	EA	100	3	95	183018
5/8"	1.04 LBS	EA	50	3	95	183020
3/4"	1.51 LBS	EA	50	4	130	183024
7/8"	2.21 LBS	EA	25	4	225	183028
1"	2.61 LBS	EA	25	5	225	183032
1 1/8"	4.36 LBS	EA	25	6	225	183036
1 1/4"	4.60 LBS	EA	10	7	360	183040
1 3/8"	5.20 LBS	EA	10	7	360	183044
1 1/2"	5.90 LBS	EA	5	8	360	183048
1 3/4"	9.00 LBS	EA	5	8	430	183056
2"	13.00 LBS	EA	3	8	590	183064
2 1/4"	16.00 LBS	EA	3	8	750	183072
2 1/2"	19.00 LBS	EA	3	8	750	183080
2 3/4"	23.00 LBS	EA	3	10	750	183088

NOTE: SIZES 1/8" – 3/16" U-BOLTS & NUTS ARE ELECTRO GALVANIZED



WIRE ROPE FIST GRIP

FIST GRIP CLIP (H.D. GALVANIZED)



SIZE	WEIGHT	UNIT	BOX QTY	MINIMUM NO OF CLIPS REQUIRED	TORQUE IN FT-LBS	STOCK NO.
3/16"-1/4"	0.23 LBS	EA	100	2	30	184506
5/16"	0.28 LBS	EA	100	2	30	184510
3/8"	0.40 LBS	EA	100	2	45	184512
7/16"-1/2"	0.62 LBS	EA	50	3	65	184514
1/2"	0.62 LBS	EA	50	3	65	184516
9/16"-5/8"	1.03 LBS	EA	25	3	130	184518
3/4"	1.75 LBS	EA	25	3	225	184524
7/8"	2.25 LBS	EA	25	4	225	184528
1"	3.00 LBS	EA	10	5	225	184532
1 1/8"	4.00 LBS	EA	10	5	360	184536
1 1/4"	4.00 LBS	EA	10	6	360	184540

DROP FORGED WIRE ROPE CLIP USA

	Hot Galvanized	U-Bolt Dimensions				Weight
Rope Size	Part No.	A	B	C	T	Per 100
1/8"	23460 3	12-24	3/4"	9/32"	1/2"	6.5
3/16"	23465 8	1/4"-20	15/16"	5/16"	5/8"	10
1/4"	23470 2	5/16"-18	1-5/32"	3/8"	3/4"	18.5
5/16"	23475 7	3/8"-16	1-1/2"	1/2"	1"	29.5
3/8"	23480 1	7/16"-14	1-5/8"	9/16"	7/8"	44
7/16"	23485 6	1/2"-13	1-7/8"	5/8"	1-1/4"	64
1/2"	23490 0	1/2"-13	1-7/8"	5/8"	1-1/4"	75
9/16"	23495 5	9/16"-12	2-3/8"	3/4"	1-3/8"	106
5/8"	23500 6	9/16"-12	2-3/8"	3/4"	1-3/8"	106
3/4"	23505 1	5/8"-11	2-3/4"	7/8"	1-5/8"	153
7/8"	23510 5	3/4"-10	3-1/4"	1"	1-7/8"	237.5
1"	23515 0	3/4"-10	3-5/8"	1-1/8"	2"	272.5
1-1/8"	23520 4	3/4"-10	3-13/16"	1-1/4"	2-1/4"	325
1-1/4"	23525 9	7/8"-9	4-3/8"	1-11/32"	2-1/2"	441
1-1/2"	23535 8	7/8"-9	5-1/8"	1-11/16"	2-3/4"	550



Meets Performance Requirements of Federal Specification FF-C-450, Type 1, Class 1

WEDGE SOCKET CLIPS (H.D.G.)

SIZE	WEIGHT	UNIT	MINIMUM TAIL LENGTH	TORQUE (FT-LBS)*	STOCK NO.
7/16"	1.30 LBS	EA	6"	65	182514
1/2"	1.40 LBS	EA	6"	65	182516
9/16"	1.70 LBS	EA	6"	95	182518
5/8"	1.70 LBS	EA	6"	95	182520
3/4"	2.50 LBS	EA	6"	130	182524
7/8"	3.60 LBS	EA	6"	225	182528
1"	3.90LBS	EA	6"	225	182532





CHAIN

Grade 30 Proof Coil

- Carbon Steel
- Standard Container - fiber drum
- Finish - Self colored and Galvanized
- Proof loaded at 2 times Working Load Limit
- Minimum Ultimate load 4 times Working Load Limit.

Chain Size (in.)	Working Load Limit (lbs.)
3/16	800
1/4	1300
5/16	1900
3/8	2650
1/2	4500
5/8	6900
3/4	10600



Grade 40 High Test

- Carbon Steel
- Standard Container - fiber drum
- Finish - Self colored and Galvanized
- Proof loaded at 2 times Working Load Limit
- Minimum Ultimate load 3 times Working Load Limit.

Chain Size (in.)	Working Load Limit (lbs.)
1/4	2600
5/16	3900
3/8	5400
7/16	7200
1/2	9200
5/8	13000
3/4	20200

Grade 70 - Transport

NOT TO BE USED FOR OVERHEAD LIFTING

- High tensile carbon steel
- Standard container - fiber drum
- Finish - Self colored
- Proof loaded at 2 times Working Load Limit
- Minimum Ultimate load 4 times Working Load Limit.

Chain Size (in.)	Working Load Limit (lbs.)
1/4	3150
5/16	4700
3/8	6600
7/16	8750
1/2	11300



Grade 80 Alloy

ALLOY CHAIN RECOMMENDED FOR OVERHEAD LIFTING APPLICATIONS

- Alloy Steel
- Hand treated
- Finish - Self colored
- Proof loaded at 2 times Working Load Limit
- Minimum Ultimate load 4 times Working Load Limit

Chain Size (in.)	Working Load Limit (lbs.)
9/32 (1/4)	3500
5/16	4500
3/8	7100
1/2	12000
5/8	18100
3/4	28300
7/8	34200

ALLOY CHAIN – GRADE 100 FOR OVERHEAD LIFTING

SIZE	FINISH	WEIGHT LBS/FT	UNIT	DRUM PKG	WORKING LOAD LIMIT
9/32"	SELF COLORED	0.74 LBS	FT	500'	4,300 LBS
5/16"	SELF COLORED	1.00 LBS	FT	500'	5,700 LBS
3/8"	SELF COLORED	1.48 LBS	FT	500'	8,800 LBS
1/2"	SELF COLORED	2.50 LBS	FT	300'	15,000 LBS
5/8"	SELF COLORED	3.79 LBS	FT	200'	22,600 LBS
3/4"	SELF COLORED	5.98 LBS	FT	100'	35,300 LBS
7/8"	SELF COLORED	7.75 LBS	FT	100'	42,700 LBS
1"	SELF COLORED	10.02 LBS	FT	100'	47,700 LBS





STAINLESS STEEL CHAIN & SHACKLES

TYPE 316 CHAIN



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
1/8"	0.17 LBS/FT	FT	620 LBS
3/16"	0.38 LBS/FT	FT	930 LBS
1/4"	0.61 LBS/FT	FT	1,570 LBS
5/16"	0.95 LBS/FT	FT	2,400 LBS
3/8"	1.40 LBS/FT	FT	3,550 LBS
1/2"	2.34 LBS/FT	FT	6,500 LBS
5/8"	3.38 LBS/FT	FT	6,900 LBS

TYPE 304 CHAIN



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
3/16"	0.38 LBS/FT	FT	900 LBS
1/4"	0.60 LBS/FT	FT	1,386 LBS
5/16"	0.95 LBS/FT	FT	1,760 LBS
3/8"	1.38 LBS/FT	FT	2,750 LBS
1/2"	2.43 LBS/FT	FT	4,664 LBS
5/8"	3.38 LBS/FT	FT	6,900 LBS

SCREW PIN ANCHOR SHACKLE









SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
1/4"	0.11 LBS	EA	1,000 LBS
5/16"	0.18 LBS	EA	1,500 LBS
3/8"	0.30 LBS	EA	2,000 LBS
1/2"	0.67 LBS	EA	4,000 LBS
5/8"	1.25 LBS	EA	6,000 LBS
3/4"	2.00 LBS	EA	8,000 LBS
7/8"	3.30 LBS	EA	10,000 LBS
1"	4.6 LBS	EA	14,000 LBS









CHAIN SLINGS

4 Way Chain Sling

Chain Size	Grade 80 Rated Capacity in LBS.			Grade 100 Rated Capacity in LBS.		
						
9/32"	9,100	7,400	5,200	11,200	9,100	6,400
3/8"	18,400	15,100	10,600	22,900	18,700	13,200
1/2"	31,200	25,500	18,000	39,000	31,800	22,500
5/8"	47,000	38,400	27,100	58,700	47,900	33,900
3/4"	73,500	60,000	42,200	91,700	74,900	53,000
7/8"	88,900	72,500	51,300	110,900	90,600	64,000
1"	123,900	101,200	71,500	155,100	126,500	89,550
1 1/4"	187,800	153,400	108,400			





2 Way Chain Sling

Chain Size	Grade 80 Rated Capacity in LBS.			Grade 100 Rated Capacity in LBS.		
						
9/32"	6,100	4,900	3,500	7,400	6,100	4,300
3/8"	12,300	10,000	7,100	15,200	12,400	8,800
1/2"	20,800	17,000	12,000	26,000	21,200	15,000
5/8"	31,300	25,600	18,100	39,100	32,000	22,600
3/4"	49,000	40,000	28,300	61,100	49,900	35,300
7/8"	59,200	48,400	34,200	74,000	60,400	42,700
1"	82,600	67,400	47,700	103,400	84,400	59,700
1 1/4"	125,200	102,200	72,300			



Single Leg Chain Sling

Chain Size	Grade 80 Rated Capacity in LBS.	Grade 100 Rated Capacity in LBS.
	 Vertical	 Vertical
9/32"	3,500	4,300
3/8"	7,100	8,800
1/2"	12,000	15,000
5/8"	18,100	22,600
3/4"	28,300	35,300
7/8"	34,200	42,700
1"	47,700	59,700
1 1/4"	72,300	

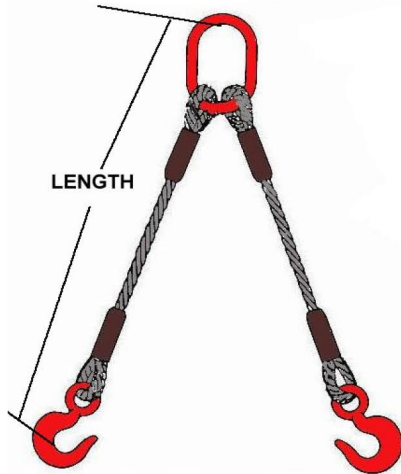




WIRE ROPE SLING

WIRE ROPE SPREADER ASSEMBLIES

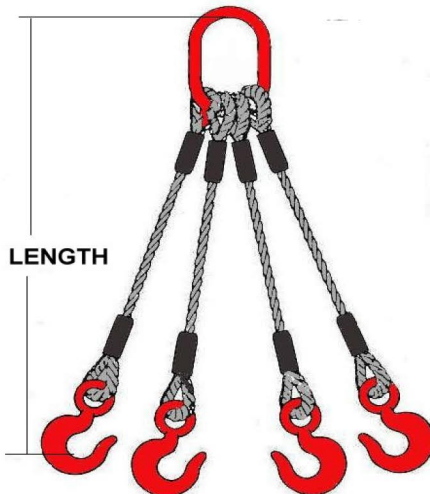
TWO-LEG SPREADER ASSEMBLY



WIRE ROPE DIA	RATED CAPACITY HORIZONTAL ANGLES		
	60°	45°	30°
1/4"	1.1 T	.91 T	.65 T
5/16"	1.7 T	1.4 T	1 T
3/8"	2.5 T	2.0 T	1.4 T
7/16"	3.4 T	2.7 T	1.9 T
1/2"	4.4 T	3.6 T	2.5 T
5/8"	6.8 T	5.5 T	3.9 T
3/4"	9.7 T	7.9 T	5.6 T
7/8"	13 T	11 T	7.6 T
1"	17 T	14 T	9.8 T
1 1/8"	21 T	17 T	12 T
1 1/4"	26 T	21 T	15 T
1 3/8"	31 T	25 T	18 T
1 1/2"	37 T	30 T	21 T
1 3/4"	49 T	40 T	28 T
2"	63 T	52 T	37 T

** RATED CAPACITIES OF BASKET HITCHES ARE BASED ON MINIMUM DIAMETER OF CURVATURE AT THE POINT OF LOAD CONTACT OF 20 TIMES THE ROPE DIAMETER

FOUR-LEG SPREADER ASSEMBLY



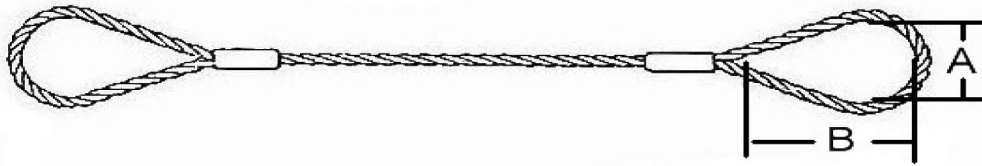
WIRE ROPE DIA	RATED CAPACITY HORIZONTAL ANGLES		
	60°	45°	30°
1/4"	2.2 T	1.8 T	1.3 T
5/16"	3.5 T	2.8 T	2 T
3/8"	5 T	4.1 T	2.9 T
7/16"	6.7 T	5.5 T	3.9 T
1/2"	8.8 T	7.1 T	5.1 T
5/8"	14 T	11 T	7.8 T
3/4"	19 T	16 T	11 T
7/8"	26 T	21 T	15 T
1"	34 T	28 T	20 T
1 1/8"	42 T	34 T	24 T
1 1/4"	51 T	42 T	30 T
1 3/8"	62 T	50 T	36 T
1 1/2"	73 T	60 T	42 T
1 3/4"	98 T	80 T	57 T
2"	127 T	104 T	73 T







** RATED CAPACITIES OF BASKET HITCHES ARE BASED ON MINIMUM DIAMETER OF CURVATURE AT THE POINT OF LOAD CONTACT OF 20 TIMES THE ROPE DIAMETER

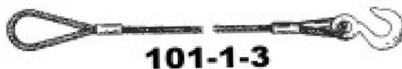
NOTE: OTHER SIZES AVAILABLE UPON REQUEST.




WIRE ROPE SLING



ROPE DIAMETER	RATED CAPACITY - TONS = 2,000 LBS						EYE DIMENSIONS	
			BASKET HITCH				A INCHES	B INCHES
								
	VERTICAL	CHOKER HITCH		60 DEGREE	45 DEGREE	30 DEGREE		
1/4"	0.65	0.48	1.3	1.1	0.94	0.65	2	4
5/16"	1	0.74	2	1.8	1.4	1	2 1/2	5
3/8"	1.4	1.1	2.9	2.6	2.1	1.4	3	6
7/16"	1.9	1.4	3.9	3.4	2.8	1.9	3 1/2	7
1/2"	2.5	1.9	5.1	4.5	3.7	2.5	4	8
9/16"	3.2	2.4	6.4	5.6	4.6	3.2	4 1/2	9
5/8"	3.9	2.9	7.8	6.9	5.6	3.9	5	10
3/4"	5.6	4.1	11	9.7	7.9	5.6	6	12
7/8"	7.6	5.6	15	13	10	7.1	7	14
1"	9.8	7.2	20	18	14	9.8	8	16
1 1/8"	12	9.1	24	21	17	12	9	18
1 1/4"	15	11	30	26	21	15	10	20
1 3/8"	18	13	36	32	26	18	11	22
1 1/2"	21	16	42	37	30	21	12	24
1 5/8"	24	18	49	43	35	24	13	26
1 3/4"	28	21	57	50	41	28	14	28
2"	37	28	74	65	53	37	16	32






DIMENSIONS FOR END FITTINGS

ROPE DIAMETER	LOOP* 101-1-1		THIMBLE 101-1-2		ALLOY HOOK 101-1-3	SHACKLE W/THIMBLE 101-1-4	SWIVEL HOOK 101-1-5	BUTTON FERRULE 101-1-6		RATED CAPACITIES	
	INSIDE		INSIDE					 VERTICAL			
	INCHES	WIDTH/IN.	LENGTH/IN.	WIDTH/IN.	LENGTH/IN.	SIZE TONS	SIZE IN.		SIZE TONS	DIAMETER	LENGTH
1/4"	2"	4"	7/8"	1 5/8"	1	5/16"	1	0.58	1.2	.59 TONS	
5/16"	2 1/2"	5"	1 1/16"	1 7/8"	1 1/2	3/8"	1 1/2	0.77	1.33	.92 TONS	
3/8"	3"	6"	1 1/8"	2 1/8"	3	7/16"	3	0.77	1.69	1.3 TONS	
7/16"	3 1/2"	7"	1 1/4"	2 3/8"	3	1/2"	3	1.03	1.94	1.8 TONS	
1/2"	4"	8"	1 1/2"	2 3/4"	3	1/2"	3	1.16	2.17	2.3 TONS	
5/8"	5"	10"	1 3/4"	3 1/4"	4 1/2	5/8"	4 1/2	1.42	2.89	3.6 TONS	
3/4"	6"	12"	2"	3 3/4"	7	3/4"	7	1.55	3.25	5.1 TONS	
7/8"	7"	14"	2 1/4"	4 1/4"	7	7/8"	7	1.8	3.86	6.9 TONS	
1"	8"	16"	2 1/2"	4 1/2"	11	1"	11	2.05	4.36	9 TONS	
1 1/8"	9"	18"	2 7/8"	5 1/8"	11	1 1/8"	11	2.3	4.81	11 TONS	
1 1/4"	11"	22"	2 7/8"	5 1/8"	15	1 1/4"	15	2.56	5.42	13 TONS	
1 3/8"	12"	24"	3 1/2"	6 1/4"	22	1 3/8"	22	2.75	6	16 TONS	
1 1/2"	13"	26"	3 1/2"	6 1/4"	22	1 1/2"	22	3	6.5	19 TONS	





HOOKS

Self Locking Hooks With Trigger Latch

WLL in Tons		Chain Size	Hook Type
G80	G100		
2.0	2.5	1/4-5/16"	  Clevis Eye Regular Eye
3.15	4.0	3/8"	
5.3	6.7	1/2"	 Swival Eye
8.0	10.0	5/8"	
12.5	16.0	3/4"	
15.0	19.0	7/8"	
21.2	N/A	1"	

Slip Hook

WLL in Tons		Hook Type
Carbon	Alloy	
0.75	1.0	 Regular Eye
1.0	1.5	
1.5	2.0	
2.0	3.0	
3.0	5.0	
7.5	7.0	 Swival Eye
10	11	
15	15	
20	22	
N/A	30	



NYLON SLING

Eye & Eye Flat



Eye & Eye Twist



Stock No.	Width	Ply	Rated Capacity in Pounds						Eye Length	Eye Width
			Vertical	Choker	Basket	60°	45°	30°		
EE1-601	1"	1	1,200	900	2,400	2,100	1,700	1,200	8"	1"
EE1-901	1"	1	1,600	1,200	3,200	2,800	2,300	1,600	8"	1"
EE2-601	1"	2	2,400	2,000	4,800	4,200	3,400	2,400	8"	1"
EE2-901	1"	2	3,200	2,500	6,400	5,500	4,500	3,200	8"	1"
EE3-601	1"	3	3,600	2,900	7,200	6,200	5,100	3,600	12"	1"
EE3-901	1"	3	4,100	3,300	8,200	7,100	5,800	4,100	12"	1"
EE4-601	1"	4	4,800	3,800	9,600	8,300	6,800	4,800	12"	1"
EE4-901	1"	4	6,100	4,900	12,200	10,500	8,600	6,100	12"	1"
EE1-6015	1.5"	1	1,650	1,320	3,300	2,850	2,300	1,650	8"	1.5"
EE2-6015	1.5"	2	3,300	2,640	6,600	5,700	4,650	3,300	8"	1.5"
EE1-9015	1.5"	1	2,350	1,860	4,700	3,900	3,200	2,350	8"	1.5"
EE2-9015	1.5"	2	4,650	3,720	9,300	8,050	6,570	4,650	8"	1.5"
EE1-60175	1.75"	1	2,100	1,600	4,200	3,600	2,950	2,100	8"	1.75"
EE2-60175	1.75"	2	4,200	3,200	8,400	7,270	5,900	4,200	8"	1.75"
EE1-602	2"	1	2,400	2,000	4,800	4,200	3,400	2,400	10"	2"
EE1-902	2"	1	3,200	2,500	6,400	5,500	4,500	3,200	10"	2"
EE2-602	2"	2	4,800	3,800	9,600	8,300	6,800	4,800	10"	2"
EE2-902	2"	2	6,400	5,000	12,800	11,100	9,000	6,400	10"	2"
EE3-602	2"	3	7,000	5,200	14,000	12,100	9,900	7,000	12"	2"
EE3-902	2"	3	8,200	6,600	16,400	14,200	11,600	8,200	12"	2"
EE4-602	2"	4	8,900	7,100	17,800	15,540	12,500	8,900	12"	2"
EE4-902	2"	4	12,200	9,800	24,400	21,100	17,200	12,200	12"	2"
EE1-603	3"	1	3,600	2,900	7,200	6,200	5,100	3,600	11"	1.5"
EE1-903	3"	1	4,800	3,800	9,600	8,300	6,800	4,800	11"	1.5"
EE2-603	3"	2	6,650	5,300	13,300	11,500	9,400	6,700	11"	1.5"
EE2-903	3"	2	8,900	7,200	17,800	15,400	12,600	8,900	11"	1.5"
EE3-603	3"	3	10,000	8,000	20,000	17,300	14,100	10,000	15"	1.5"
EE3-903	3"	3	12,300	9,900	24,600	21,300	17,400	12,300	15"	1.5"
EE4-603	3"	4	13,300	10,700	26,600	23,100	18,800	13,300	15"	1.5"
EE4-903	3"	4	18,000	13,500	36,000	31,100	25,400	18,000	15"	1.5"
EE1-604	4"	1	4,800	3,800	9,600	8,300	6,800	4,800	12"	2"
EE1-904	4"	1	6,400	5,000	12,800	11,100	9,000	6,400	12"	2"
EE2-604	4"	2	8,600	6,900	17,200	15,000	12,200	8,600	12"	2"
EE2-904	4"	2	12,000	9,600	24,000	20,800	17,000	12,000	12"	2"
EE3-604	4"	3	13,000	10,000	26,000	22,500	18,300	13,000	16"	2"
EE3-904	4"	3	15,300	12,200	30,600	26,500	21,600	15,300	16"	2"
EE4-604	4"	4	17,300	13,800	34,600	30,000	24,400	17,300	16"	2"
EE4-904	4"	4	22,000	17,600	44,000	38,100	31,100	22,000	16"	2"
EE1-905	5"	1	8,000	6,400	16,000	13,800	11,300	8,000	14"	1.75"
EE2-905	5"	2	14,250	11,400	28,500	24,600	20,100	14,250	14"	1.75"
EE3-905	5"	3	22,500	18,000	45,000	38,900	31,800	22,500	18"	2.5"
EE4-905	5"	4	30,000	22,500	60,000	51,900	42,400	30,000	18"	2.5"
EE1-606	6"	1	7,200	5,800	14,400	12,500	10,200	7,200	16"	2"
EE1-906	6"	1	9,600	7,600	19,200	16,600	13,600	9,600	16"	2"
EE2-606	6"	2	12,200	9,800	24,500	21,200	17,300	12,200	16"	2"
EE2-906	6"	2	17,000	13,000	34,000	29,400	24,000	17,000	16"	2"
EE3-606	6"	3	18,000	14,500	36,000	31,100	25,400	18,000	18"	3"
EE3-906	6"	3	23,000	18,400	46,000	39,800	32,500	23,000	18"	3"
EE4-606	6"	4	24,500	19,600	49,000	42,400	34,600	24,500	18"	3"
EE4-906	6"	4	33,000	24,600	66,000	57,100	46,700	33,000	18"	3"
EE1-908	8"	1	12,800	10,000	25,600	22,200	18,100	12,800	20"	3"
EE2-908	8"	2	22,800	18,000	45,600	39,500	32,200	22,800	20"	3"
EE3-908	8"	3	30,700	24,500	61,400	53,100	43,400	30,700	24"	4"
EE4-908	8"	4	44,000	35,200	88,000	76,200	62,200	44,000	24"	4"
EE1-910	10"	1	16,000	12,800	32,000	27,700	22,600	16,000	24"	3.5"
EE2-910	10"	2	28,000	22,500	56,000	48,500	39,500	28,000	24"	3.5"
EE3-910	10"	3	36,000	28,500	72,000	62,300	50,900	36,000	24"	5"
EE4-910	10"	4	55,000	44,000	110,000	95,200	77,700	55,000	24"	5"
EE1-912	12"	1	19,200	15,400	38,400	33,200	27,100	19,200	24"	4"
EE2-912	12"	2	33,600	26,750	67,200	58,200	47,500	33,600	24"	4"
EE3-912	12"	3	46,000	36,500	92,000	79,600	65,000	46,000	26"	6"
EE4-912	12"	4	66,000	52,800	132,000	114,300	93,300	66,000	32"	6"

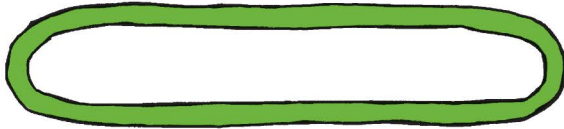


Warning: Horizontal sling angles less than 30° shall not be used. Do not exceed rated capacity.



NYLON SLING

Saf/Grip Round Slings



The Saf/Grip Endless Round Sling is the most versatile. Capable of being used in vertical, choker and basket hitches, wear points can be shifted to extend sling life. Pliable body hugs the load and offers super strength and ease of handling. Slings feature identification tags indicating size, type and rated capacity.

Color Code	Stock No.	Approx. Body Diameter in Inches	Approx. Body Wt. Pounds/Ft.	Rated Capacity in Pounds					Minimum Length
				Vertical	Choker	Basket	60°	45°	
Purple	SR-1	0.60	0.20	2,600	2,100	5,200	4,500	3,700	3 ft.
Green	SR-2	0.80	0.30	5,300	4,200	10,600	9,200	7,500	3 ft.
Yellow	SR-3	1.00	0.50	8,400	6,700	16,800	14,500	11,900	3 ft.
Tan	SR-4	1.20	0.72	10,600	8,500	21,200	18,400	15,000	3 ft.
Red	SR-5	1.30	0.90	13,200	10,600	26,400	22,900	18,700	3 ft.
White	SR-6	1.40	1.05	16,800	13,400	33,600	29,100	23,800	6 ft.
Blue	SR-7	1.75	1.35	21,200	17,000	42,400	36,700	30,000	6 ft.
Orange	SR-8	2.00	1.75	25,000	20,000	50,000	43,300	35,400	6 ft.
Orange	SR-9	2.25	1.90	31,000	24,800	62,000	53,700	43,800	6 ft.
Orange	SR-10	2.50	2.90	40,000	32,000	80,000	69,300	56,600	6 ft.
Black	SR-11	3.00	3.90	53,000	42,400	106,000	91,800	74,900	7 ft.
Black	SR-12	3.25	4.10	66,000	52,800	132,000	114,300	93,300	7 ft.
Black	SR-13	3.75	5.45	90,000	72,000	180,000	155,900	127,300	7 ft.
Black	SR-13S	4.00	5.65	100,000	80,000	200,000	173,200	141,400	7 ft.

Saf/Grip Eye & Eye Round Slings



Extra protective Cordura® cover adds durability. Sling jackets are color-coded by rated capacity. Choose from seven different colors to fit the rated capacity you need for your lift.

Color Code	Stock No.	Rated Capacity in Pounds					Minimum Length
		Vertical	Choker	Basket	60°	45°	
Purple	SR1-EE	2,600	2,100	5,200	4,500	3,700	4 ft.
Green	SR2-EE	5,300	4,200	10,600	9,200	7,500	4 ft.
Yellow	SR3-EE	8,400	6,700	16,800	14,500	11,900	4 ft.
Tan	SR4-EE	10,600	8,500	21,200	18,400	15,000	5 ft.
Red	SR5-EE	13,200	10,600	26,400	22,900	18,700	5 ft.
White	SR6-EE	16,800	13,400	33,600	29,100	23,800	7 ft.
Blue	SR7-EE	21,200	17,000	42,400	36,700	30,000	7 ft.

The bodies of all Safeway Eye & Eye Round Slings are protected with a Cordura® Tubular Jacket for extra protection. Special Note: SR8-EE and larger now available. See SR chart above for capacities.

Cordura® is a registered trademark of DuPont.



Warning: Horizontal sling angles less than 30° shall not be used. Do not exceed rated capacity.



SNATCH BLOCK

SNATCH BLOCK WITH HOOK

SIZE	WIRE SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
3"	3/8"	6.00 LBS	EA	2 TON
4 1/2"	1/2"	15.00 LBS	EA	4 TON
6"	5/8-3/4"	26.00 LBS	EA	8 TON
8"	5/8-3/4"	33.00 LBS	EA	8 TON

SNATCH BLOCK WITH SHACKLE

SIZE	WIRE SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
3"	3/8"	3.00 LBS	EA	2 TON
4 1/2"	1/2"	12.00 LBS	EA	4 TON
6"	5/8-3/4"	27.00 LBS	EA	8 TON
8"	5/8-3/4"	34.00 LBS	EA	8 TON

SNATCH BLOCK ALL ALLOY

SIZE	WIRE ROPE SIZE	DESCRIPTION	WEIGHT	UNIT	WORKING LOAD LIMIT
6"	3/4" & 7/8"	WITH HOOK	26.00 LBS	EA	12 TON
6"	3/4" & 7/8"	WITH SHACKLE	27.00 LBS	EA	12 TON
8"	3/4" & 7/8"	WITH HOOK	33.00 LBS	EA	12 TON
8"	3/4" & 7/8"	WITH SHACKLE	34.00 LBS	EA	12 TON
10"	3/4" & 7/8"	WITH HOOK	41.00 LBS	EA	12 TON
10"	3/4" & 7/8"	WITH SHACKLE	42.00 LBS	EA	12 TON

SNATCH BLOCK-HEAVY DUTY

SIZE	DESCRIPTION	WEIGHT	UNIT	WORKING LOAD LIMIT
10"	W/HOOK V430BB	89.00 LBS	EA	20 TON
12"	W/HOOK V403BB	103.0 LBS	EA	20 TON
12"	W/SHACKLE V403BB	109.0 LBS	EA	20 TON





NYLON STRAPS



2" Tie Down Set with Flat Hook

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
8	26	1514	3335	4500	10000	3.1
10	32	1514	3335	4500	10000	3.3
12	40	1514	3335	4500	10000	3.5



1" Tie Down Set, Heavy Duty with Double J Hook

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
4.5	15	180	400	1000	2200	1.5
6	20	180	400	1000	2200	3.5
8	26	180	400	1000	2200	5.0



2" Tie Down Set with Double J Hook

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
8	26	1514	3335	4500	10000	2.9
10	32	1514	3335	4500	10000	3.1
12	40	1514	3335	4500	10000	3.3



1" Tie Down Set, Light Duty with S Hook

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
4.5	15	182	400	545	1200	0.65
6	20	182	400	545	1200	0.70
8	26	182	400	545	1200	0.75



1-1/2" Tie Down Set with Double J Hook

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
6	20	1000	2200	2000	4400	1.4
9	30	1000	2200	2000	4400	1.6
12	39	1000	2200	2000	4400	1.8



1" Tie Down Set, Cam Buckle Type

Overall Length		Working Load Limited		Minimum Breaking Load		Wt./pc
meter	ft	kgs	lbs	kgs	lbs	
4.5	15	310	700	600	1300	0.65
6	20	310	700	600	1300	0.70
8	26	310	700	600	1300	0.75



BINDER CHAIN AND LOAD BINDERS

TIE-DOWN CHAIN (INTERNATIONAL)



SIZE	FINISH	WEIGHT	UNIT	DRUM QTY	WORKING LOAD LIMIT
1/4" X 12'	HIGH TEST SELF COLORED	9.00 LBS	EA	20	2,600 LBS
5/16" X 16'	HIGH TEST SELF COLORED	19.00 LBS	EA	20	3,900 LBS
5/16" X 20'	HIGH TEST SELF COLORED	23.00 LBS	EA	25	3,900 LBS
5/16" X 20'	G70 YELLOW CHROMATE	23.00 LBS	EA	25	4,700 LBS
5/16" X 25'	G70 YELLOW CHROMATE	26.40 LBS	EA	20	4,700 LBS
3/8" X 20'	HIGH TEST SELF COLORED	34.0 LBS	EA	20	5,400 LBS
3/8" X 20'	G70 YELLOW CHROMATE	34.0 LBS	EA	20	6,600 LBS
3/8" X 25'	G70 YELLOW CHROMATE	36.3 LBS	EA	15	6,600 LBS
1/2" X 20'	HIGH TEST SELF COLORED	54.0 LBS	EA	10	9,200 LBS
1/2" X 20'	G70 YELLOW CHROMATE	54.0 LBS	EA	10	11,300 LBS

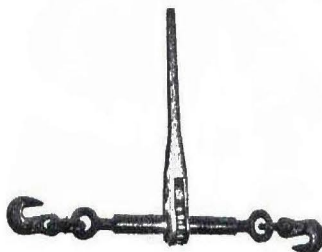
NOTE: CLEVIS GRAB HOOKS ONLY

LEVER LOAD BINDER



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
1/4"	3.00 LBS	EA	2,600 LBS
5/16" - 3/8"	7.00 LBS	EA	5,400 LBS
3/8" - 1/2"	10.00 LBS	EA	9,200 LBS

RATCHET LOAD BINDER



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
1/4"	3.50 LBS	EA	2,600 LBS
5/16" - 3/8"	11.20 LBS	EA	5,400 LBS
5/16" - 3/8"	11.20 LBS	EA	6,600 LBS
5/16" - 3/8"	11.20 LBS	EA	8,800 LBS
3/8" - 1/2"	12.80 LBS	EA	9,200 LBS
3/8" - 1/2"	12.80 LBS	EA	15,000 LBS
1/2" - 5/8"	14.60 LBS	EA	13,000 LBS
1/2" - 5/8"	14.60 LBS	EA	16,000 LBS



TRUCK WINCH & WINCH STRAPS



DISC WEBBING



WELD ON



LASHING



BOLT ON



STANDARD SLIDING



CABLE WINCH

SIZE	DESCRIPTION	WEIGHT	UNIT	WORKING LOAD LIMIT
2"	DISC WEBBING WINCH V-300	10.90 LBS	EA	3,335 LBS
2"	LASHING BOLT ON	3.40 LBS	EA	3,335 LBS
4"	STANDARD WELD ON V-700	8.40 LBS	EA	5,000 LBS
4"	LOW PROFILE WELD ON V-700-LP	7.30 LBS	EA	5,000 LBS
4"	STORABLE WELD ON V-700S	9.60 LBS	EA	5,000 LBS
4"	STANDARD BOLT ON V700P	9.60 LBS	EA	5,000 LBS
4"	STANDARD SLIDING V700S	9.10 LBS	EA	5,000 LBS

FLAT HOOK



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
2" X 27'	2.80 LBS	EA	3,335 LBS
2" X 30'	3.10 LBS	EA	3,335 LBS
3" X 27'	3.75 LBS	EA	4,300 LBS
3" X 30'	4.00 LBS	EA	4,300 LBS
4" X 27'	4.25 LBS	EA	5,400 LBS
4" X 30'	4.75 LBS	EA	5,400 LBS

CHAIN END



SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
2" X 27'	5.00 LBS	EA	3,335 LBS
2" X 30'	4.25 LBS	EA	3,335 LBS
3" X 27'	5.60 LBS	EA	4,300 LBS
3" X 30'	5.90 LBS	EA	4,300 LBS
4" X 27'	7.40 LBS	EA	5,400 LBS
4" X 30'	7.80 LBS	EA	5,400 LBS

WIRE HOOK

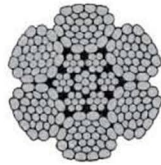


SIZE	WEIGHT	UNIT	WORKING LOAD LIMIT
2" X 27'	2.80 LBS	EA	3,335 LBS
2" X 30'	3.10 LBS	EA	3,335 LBS
3" X 27'	3.75 LBS	EA	4,300 LBS
3" X 30'	4.00 LBS	EA	4,300 LBS
4" X 27'	4.25 LBS	EA	5,400 LBS
4" X 30'	4.75 LBS	EA	5,400 LBS



LOGGING PRODUCTS

Super Swager Ropes



6x26WS PPC

Finished Diameter	Approx. Weight Per Foot (lbs)	Minimum Breaking Strength (lbs)
1/2"	0.605	34,700
9/16"	0.779	43,500
5/8"	0.957	53,900
3/4"	1.37	76,800
7/8"	1.87	104,000

9/16 Log Chokers

Length	Wire Type	Number of Ferrules	Slide Type	Unit
8'	IWRC	2	Micro Midget	EA
8'	IWRC	2	Midget	EA
8'	SWAGED	2	Midget	EA
8'	IWRC	3	Micro Midget	EA
8'	IWRC	3	Midget	EA
8'	IWRC	4	Micro Midget	EA
9'	IWRC	2	Micro Midget	EA
9'	IWRC	2	Midget	EA
9'	SWAGED	2	Midget	EA
9'	IWRC	3	Micro Midget	EA
9'	IWRC	3	Midget	EA
9'	IWRC	4	Micro Midget	EA
10'	IWRC	2	Micro Midget	EA
10'	IWRC	2	Midget	EA
10'	SWAGED	2	Midget	EA
10'	IWRC	3	Micro Midget	EA
10'	IWRC	3	Midget	EA
10'	IWRC	4	Micro Midget	EA



1/2" Log Chokers

Length	Number of Ferrules	Slide Type	Unit
6'	2	Micro Midget	EA
7'	2	Micro Midget	EA
8'	2	Micro Midget	EA
9'	2	Micro Midget	EA
10'	2	Micro Midget	EA

5/8" Log Chokers

Length	Number of Ferrules	Slide Type	Unit
8'	2	Dwarf	EA
9'	2	Dwarf	EA
10'	2	Dwarf	EA
12'	2	Dwarf	EA
10'	2	Micro Midget	EA

Wedge Ferrule Button Replacment



Size	Weight	Unit	Working Load Limit
3/8" - 1/2"	2.25 lbs	EA	3,400 lbs
5/8"	4.25 lbs	EA	5,100 lbs
3/4"	5.35 lbs	EA	8,000 lbs
7/8"	7.50 lbs	EA	10,000 lbs
1"	10.00 lbs	EA	15,000 lbs



Logging Choker Chain Hook

Size	Description	Weight	Unit	Working Load Limit
3/8"	Large Alloy	2.12 lbs	EA	6,600 lbs



Logging Choker Bell Slide Hook

Size	Description	Weight	Unit
1/2" - 9/16"	Micro-Midger	0.75 lbs	EA
1/2" - 9/16"	Midget	1.50 lbs	EA
5/8"	Dwarf	3.25 lbs	EA



Large Hole Bell Slide Hook

Size	Description	Weight	Unit
9/16"	Midget	2.25 lbs	EA
5/8"	Dwarf	4.00 lbs	EA



Small Hole Bell Slide Hook

Size	Description	Weight	Unit
1/2" - 9/16"	Midget	3.00 lbs	EA
5/8"	Dwarf	3.50 lbs	EA



Impact Cable Cutter

Size	Description	Weight
Model #1	Up to 3/4"	8.6 lbs
Model #1A	Up to 1-1/16"	17.0 lbs

Quick Link. Zinc plated

Dia	I.L	W.L.L.	N.W.
mm	mm	kgs	kgs/pc
3.5	36	200	0.008
4	40	300	0.012
5	50	350	0.020
6	58	500	0.035
7	68	600	0.065
8	76	1000	0.078
9	83	1250	0.110
10	92	1550	0.135
12	107	2000	0.250

Minimum Breaking Load = 2.5 x Working Load Limited



Delta Link. Zinc plated

Wire Dia	H./W.	W.L.L.	N.W.
mm	mm	kgs	kgs/pc
5	40 x 31	0.2	0.025
6	44 x 35	0.3	0.046
8	57 x 40	0.7	0.085
10	67 x 46	1.0	0.17
12	80 x 51	1.3	0.27
14	94 x 56	1.8	0.41

Minimum Breaking Load = 3 x Working Load Limited



Snap Hook. Acc.DIN 5299 C zinc plated

Dia	O.L.	W.L.L.	N.W.
mm	mm	Ton	kgs
5	50	0.10	0.018
6	60	0.12	0.028
7	70	0.18	0.045
8	80	0.23	0.070
9	90	0.25	0.090
10	100	0.35	0.144
11	120	0.45	0.192
12	140	0.54	0.270

Minimum Breaking Load = 2.5 x Working Load Limited



Cold Strut. Zinc plated

Wire DIA	W.L.L.	W.T.
inch mm	lbs	kgs
3/16 5	340	0.03
1/4 6	750	0.04
5/16 8	1250	0.07
3/8 10	1900	0.09
7/16 11	2650	0.10
1/2 12	4090	0.18



Snap Hook, with Eyelet acc.DIN 5299 zinc plated

Dia	O.L.	W.L.L.	N.W.
inch mm	mm	ton	kgs
5	50	0.10	0.020
6	60	0.12	0.030
7	70	0.18	0.050
8	80	0.23	0.075
9	90	0.25	0.098
10	100	0.35	0.160
11	120	0.45	0.210

Minimum Breaking Load = 2.5 x Working Load Limited



Regular Swivel, Hot dip galv.

Ring Size	W.L.L.	O.L.
inch	lbs	inch
0.75 x 0.75	850	3.44
1 x 1	1250	4.19
1.25 x 1.25	2250	5.06
1.5 x 1.5	3600	6.44
1.75 x 1.75	5200	7.81
2 x 2	7200	8.69
2.25 x 2.25	10000	10.13
2.5 x 2.5	12500	11.63
4 x 4	45200	20.13

Minimum Breaking Load = 5 x Working Load Limited



Snap Hook, with Screw zinc plated

Dia	O.L.	W.L.L.	N.W.
inch mm	mm	kgs	kgs
1/4 60	120	0.042	
5/16 80	230	0.090	
3/8 100	350	0.164	
7/16 120	450	0.232	

Minimum Breaking Load =
2 x Working Load Limited



Jaw End Swivel, Hot dip galv.

Ring Size	W.L.L.	O.L.
inch	lbs	inch
0.75 x 0.47	850	3.38
1 x 0.5	1250	3.88
1.25 x 0.63	2250	4.75
1.5 x 0.75	3600	6.06
1.75 x 0.94	5200	7.31
2 x 1.13	7200	8.31
2.25 x 1.2	10000	9.53
2.5 x 1.75	12500	11.7
4 x 2.88	45200	20.8

Minimum Breaking Load = 5 x Working Load Limited



Lap Link. Zinc plated

Wire	Dia	O.L.	N.W.
mm	inch	mm	kgs
3.5	1/8	19	0.006
5	3/16	25	0.014
5.5	7/32	32	0.023
6	1/4	32	0.030
6	1/4	38	0.036
8	5/16	38	0.060
9.5	3/8	42	0.100
9.5	3/8	50	0.110
12	1/2	64	0.255

Minimum Breaking Load = 4 x Working Load Limited



Twin Clevis Link MLN.B.L.=4 X WLL.

Chain Size	W.L.L.	W.T.
inch	lbs	kgs
1/4 - 5/16	4700	0.15
3/8	6600	0.20
1/16 - 1/2	11250	0.46
5/8	16500	1.34





ROPE



SIZE	MANILA			NYLON			POLYPROPYLENE		
DIAMETER	NEW ROPE TENSILE STRENGTH (LBS)	SAFETY FACTOR	WORKING LOAD (LBS)	NEW ROPE TENSILE STRENGTH (LBS)	SAFETY FACTOR	WORKING LOAD (LBS)	NEW ROPE TENSILE STRENGTH (LBS)	SAFETY FACTOR	WORKING LOAD (LBS)
3/16"	406	10	41	900	12	75	720	10	72
1/4"	540	10	54	1,490	12	124	1,130	10	113
5/16"	900	10	90	2,300	12	192	1,710	10	171
3/8"	1,220	10	122	3,340	12	278	2,440	10	244
7/16"	1,580	9	176	4,500	11	410	3,160	9	352
1/2"	2,380	9	264	5,750	11	525	3,780	9	420
9/16"	3,100	8	388	7,200	10	720	4,600	8	575
5/8"	3,960	8	496	9,350	10	935	5,600	8	700
3/4"	4,860	7	695	12,800	9	1,420	7,650	7	1,090
13/16"	5,850	7	835	15,300	9	1,700	8,900	7	1,270
7/8"	6,950	7	995	18,000	9	2,000	10,400	7	1,490
1"	8,100	7	1,160	22,600	9	2,520	12,600	7	1,800
1-1/16"	9,450	7	1,350	2,600	9	2,880	14,400	7	2,060
1-1/8"	10,800	7	1,540	29,800	9	3,320	16,500	7	2,360
1-1/4"	12,200	7	1,740	33,800	9	3,760	18,900	7	2,700
1-5/16"	13,500	7	1,930	38,800	9	4,320	21,200	7	3,020
1-1/2"	16,700	7	2,380	47,800	9	5,320	26,800	7	3,820
1-5/8"	20,200	7	2,880	58,500	9	6,500	32,400	7	4,620
1-3/4"	23,800	7	3,400	70,000	9	7,800	38,800	7	5,550
2"	28,000	7	4,000	83,000	9	8,200	46,800	7	6,700

DYNEEMA ROPE



SIZE	UNIT	WEIGHT PER FT(LBS)	SRT MBL/lbs.
1/4"	FT	0.011	7,700 LBS
5/16"	FT	0.027	12,300 LBS
3/8"	FT	0.036	17,600 LBS
1/2"	FT	0.064	30,600 LBS
5/8"	FT	0.102	47,500 LBS
3/4"	FT	0.133	58,000 LBS
7/8"	FT	0.196	81,700 LBS
1"	FT	0.218	98,100 LBS
1-1/4"	FT	0.362	149,000 LBS
1-1/2"	FT	0.517	205,000 LBS
1-5/8"	FT	0.652	255,000 LBS
2"	FT	0.87	343,000 LBS



CHAIN HOIST & COME-A-LONG

LEVER OPERATED CHAIN HOIST



SIZE	TYPE	FALL	WEIGHT	UNIT	WORKING LOAD LIMIT
3/4 TON	V LEVER	5 FT	19.0 LBS	EA	3/4 TON
3/4 TON	V LEVER	10 FT	21.0 LBS	EA	3/4 TON
3/4 TON	V LEVER	15 FT	26.0 LBS	EA	3/4 TON
3/4 TON	V LEVER	20 FT	28.0 LBS	EA	3/4 TON
1 1/2 TON	V LEVER	5 FT	27.0 LBS	EA	1 1/2 TON
1 1/2 TON	V LEVER	10 FT	32.0 LBS	EA	1 1/2 TON
1 1/2 TON	V LEVER	15 FT	37.0 LBS	EA	1 1/2 TON
1 1/2 TON	V LEVER	20 FT	41.0 LBS	EA	1 1/2 TON
3 TON	V LEVER	5 FT	45.0 LBS	EA	3 TON
3 TON	V LEVER	10 FT	51.0 LBS	EA	3 TON
3 TON	V LEVER	20 FT	75.0 LBS	EA	3 TON

CHAIN HAND HOIST



SIZE	FALL	WEIGHT	UNIT	WORKING LOAD LIMIT
1/4 TON	5 FT	32.0 LBS	EA	1/4 TON
1/4 TON	10 FT	32.0 LBS	EA	1/4 TON
1/2 TON	8 FT	15.0 LBS	EA	1/2 TON
1/2 TON	15 FT	25.0 LBS	EA	1/2 TON
1/2 TON	20 FT	30.0 LBS	EA	1/2 TON
1/2 TON	30 FT	38.0 LBS	EA	1/2 TON
1 TON	8 FT	25.0 LBS	EA	1 TON
1 TON	15 FT	32.00 LBS	EA	1 TON
1 TON	20 FT	38.0 LBS	EA	1 TON
1 TON	30 FT	48.0 LBS	EA	1 TON
2 TON	8 FT	57.0 LBS	EA	2 TON
2 TON	10 FT	61.0 LBS	EA	2 TON
2 TON	20 FT	80.0 LBS	EA	2 TON
3 TON	10 FT	87.0 LBS	EA	3 TON
3 TON	20 FT	109.0 LBS	EA	3 TON
5 TON	20 FT	123.00 LBS	EA	5 TON
10 TON	30 FT	181.5 LBS	EA	10 TON

CABLE HOIST (COMALONG)



SIZE	LIFT	WEIGHT	UNIT	WORKING LOAD LIMIT
1/2 TON	15 FT	7.00 LBS	EA	1/2 TON
1 1/8 TON	38 FT	7.00 LBS	EA	1 1/8 TON
1 1/2 TON	10 FT	14.00 LBS	EA	1 1/2 TON
1 1/2 TON	30 FT	15.00 LBS	EA	1 1/2 TON
2 TON	20 FT	16.00 LBS	EA	2 TON
3 TON	15 FT	34.00 LBS	EA	3 TON



PLATE CLAMP(DOG)

PLATE CLAMPS



VERTICAL LIFTING, LOCKING RENFROE® MODEL FR

SIZE	PLATE THICKNESS	WEIGHT	UNIT	WORKING LOAD LIMIT	STOCK NO.
1/2 TON	0-3/4"	8.00 LBS	EA	1/2 TON	447701
1 TON	0-3/4"	14.00 LBS	EA	1 TON	447706
2 TON	0-1"	23.00 LBS	EA	2 TON	447712
3 TON	0-1 1/4"	30.00 LBS	EA	3 TON	447716



VERTICAL LIFTING, LOCKING RENFROE® MODEL S

SIZE	PLATE THICKNESS	WEIGHT	UNIT	WORKING LOAD LIMIT	STOCK NO.
8 TON	0-1 1/2"	70.00 LBS	EA	8 TON	448911



VERTICAL LIFTING, LOCKING RENFROE® MODEL SX

SIZE	PLATE THICKNESS	WEIGHT	UNIT	WORKING LOAD LIMIT	STOCK NO.
2 TON	0-1"	34.00 LBS	EA	2 TON	449301



VERTICAL LIFTING, NON-LOCKING RENFROE® MODEL BD

SIZE	PLATE THICKNESS	WEIGHT	UNIT	WORKING LOAD LIMIT	STOCK NO.
1/2 TON	0-1"	6.00 LBS	EA	1/2 TON	447501
1 TON	0-1 1/8"	11.00 LBS	EA	1 TON	447502
2 TON	0-1 3/8"	16.00 LBS	EA	2 TON	447503



2804 FOSTER AVE NASHVILLE , TN 37210

WWW.CUMBERLANDSALESCOMPANY.COM



615-833-7884