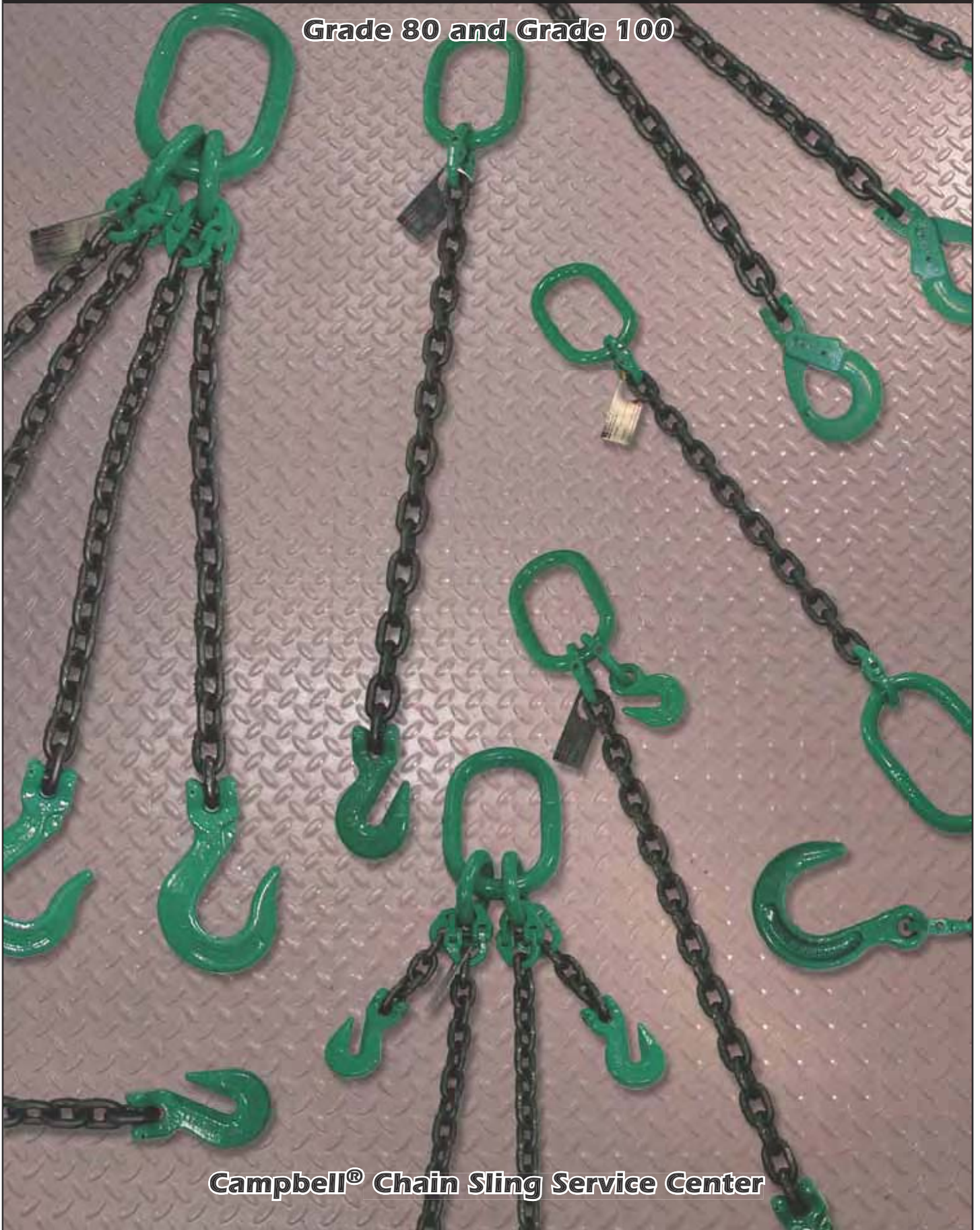


Alloy Chain Slings

Grade 80 and Grade 100



Campbell® Chain Sling Service Center

When selecting an alloy chain sling you will need to choose the type of coupling you prefer. The two types are (W) welded and (M) mechanically coupled.



Welded Coupling (W)

Mechanical Coupling (M)

Welded Coupling (W)

Features:

- Heat treated
- No pins
- Fewer moving parts
- Better Durability
- Tamper Proof
- Repairable



Mechanical Coupling (M)

Features:

- Assembled manually with pins, locking pins, and snap rings
- Fabricated quicker
- Repairable





Models:

- CO – Single leg alloy chain sling with alloy master link each end
- SSS – Single leg alloy chain sling with sling hook each end
- SGG – Single leg alloy chain sling with grab hook each end
- SSG – Single leg alloy chain sling with sling hook one end and grab hook other end
- SOG – Single leg alloy chain sling with master link one end and grab hook other end
- SOS – Single leg alloy chain sling with master link one end and sling hook other end
- SOF – Single leg alloy chain sling with master link one end and foundry hook other end
- SOJ – Single leg alloy chain sling with master link one end and J-hook other end
- SOSL – Single leg alloy chain sling with master link one end and self locking hook other end

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 7/32", 1", and 1-1/4"
- Hook latch optional on SSS, SSG, and SOS models
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

⚠ WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
7/32"	5.5	80	13/32"	1-1/2"	3"	2,100
9/32"	7	100	37/64"	2-1/2"	5"	4,300
3/8"	10	100	13/16"	3"	6"	8,800
1/2"	13	100	1-1/8"	4"	8"	15,000
5/8"	16	100	1-1/8"	4"	8"	22,600
3/4"	20	100	1-1/4"	4"	8"	35,300
7/8"	22	100	1-5/8"	5-1/4"	10-1/2"	42,700
1"	26	80	1-3/4"	6"	12"	47,700
1-1/4"	32	80	2"	7"	14"	72,300

Note:

- SOJ model has a maximum rated capacity of 3,600 lbs. and should only be made using 9/32" or 3/8" alloy chain sizes
- SOSL model only available in 9/32", 3/8", 1/2", 5/8", 3/4", 7/8", and 1" sizes
- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



DOG

Double leg alloy chain sling with master link one end and grab hooks other end

DOS

Double leg alloy chain sling with master link one end and sling hooks other end

DOF

Double leg alloy chain sling with master link one end and foundry hooks other end

DOSL

Double leg alloy chain sling with master link one end and self locking hooks other end

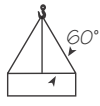

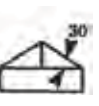
Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Hook latches optional on DOS model
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

WARNING
See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity (Lbs.)		
			Nominal Material Size	Inside Dimensions				
				Width	Length			
9/32"	7	100	37/64"	2-1/2"	5"	7,400	6,100	4,300
3/8"	10	100	13/16"	3"	6"	15,200	12,400	8,800
1/2"	13	100	1-1/8"	4"	8"	26,000	21,200	15,000
5/8"	16	100	1-1/8"	4"	8"	39,100	32,000	22,600
3/4"	20	100	1-1/4"	4"	8"	61,100	49,900	35,300
7/8"	22	100	1-5/8"	5-1/4"	10-1/2"	74,000	60,400	42,700
1"	26	80	1-3/4"	6"	12"	82,600	67,400	47,700
1-1/4"	32	80	2"	7"	14"	125,200	102,200	72,300

Note:

- DOSL model only available in 9/32", 3/8", 1/2", 5/8", 3/4", 7/8", and 1" sizes
- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%

ALLOY CHAIN SLINGS



TOG
Triple Leg alloy chain sling
with master link one end
and grab hooks other end

TOS
Triple leg alloy chain sling with
master link one end and sling
hooks other end

TOF
Triple leg alloy chain sling
with master link one end and
foundry hooks other end

TOSL
Triple leg alloy chain sling with
master link one end and self
locking hooks other end


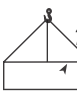
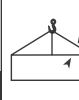
Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Hook latches optional on TOS model
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

WARNING
See alloy chain sling warnings page
for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity (lbs.)		
			Nominal Material Size	Inside Dimensions				
				Width	Length			
9/32"	7	100	13/16"	3"	6"	11,200	9,100	6,450
3/8"	10	100	1-1/8"	4"	8"	22,800	18,600	13,200
1/2"	13	100	1-1/4"	4"	8"	39,000	31,800	22,500
5/8"	16	100	1-5/8"	5-1/4"	10-1/2"	58,700	47,900	33,900
3/4"	20	100	1-7/8"	6"	12"	91,700	74,900	53,000
7/8"	22	100	2-1/4"	8"	16"	110,900	90,600	64,000
1"	26	80	2-1/4"	8"	16"	123,900	101,200	71,500
1-1/4"	32	80	2-3/4"	9"	16"	187,800	153,400	108,400

Note:

- TOSL model only available in 9/32", 3/8", 1/2", 5/8", 3/4", 7/8", and 1" sizes
- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



QOG

Quadruple leg alloy chain sling with master link one end and grab hooks other end



QOS

Quadruple leg alloy chain sling with master link one end and sling hooks other end



QOF

Quadruple leg alloy chain sling with master link one end and foundry hooks other end



QOSL

Quadruple leg alloy chain sling with master link one end and self locking hooks other end

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Hook latches optional on QOS model
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

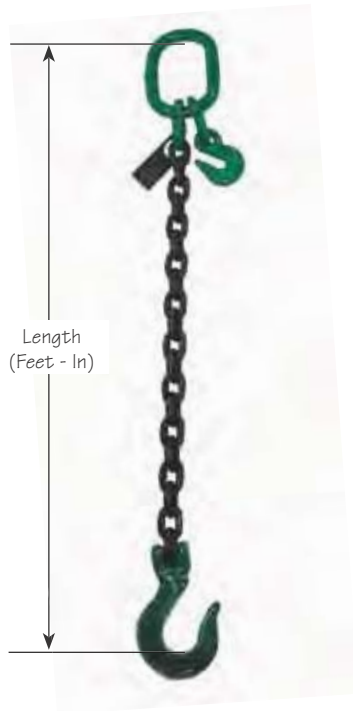
WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity (lbs.)		
			Nominal Material Size	Inside Dimensions				
				Width	Length			
9/32"	7	100	13/16"	3"	6"	11,200	9,100	6,450
3/8"	10	100	1-1/8"	4"	8"	22,800	18,600	13,200
1/2"	13	100	1-1/4"	4"	8"	39,000	31,800	22,500
5/8"	16	100	1-5/8"	5-1/4"	10-1/2"	58,700	47,900	33,900
3/4"	20	100	1-7/8"	6"	12"	91,700	74,900	53,000
7/8"	22	100	2-1/4"	8"	16"	110,900	90,600	64,000
1"	26	80	2-1/4"	8"	16"	123,900	101,200	71,500
1-1/4"	32	80	2-3/4"	9"	16"	187,800	153,400	108,400

Note:

- QOSL model only available in 9/32", 3/8", 1/2", 5/8", 3/4", 7/8", and 1" sizes
- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



SAA

Single leg adjustable chain sling with master link and style A adjuster, with sling hook other end



SAB

Single leg adjustable chain sling style master link and style B adjuster, with sling hook other end

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Hook latches optional
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

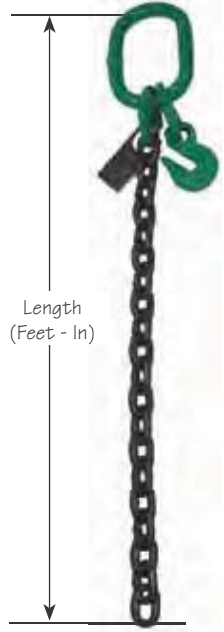
WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 90° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	4,300
3/8"	10	100	13/16"	3"	6"	8,800
1/2"	13	100	1-1/8"	4"	8"	15,000
5/8"	16	100	1-1/8"	4"	8"	22,600
3/4"	20	100	1-5/8"	5-1/4"	10-1/2"	35,300
7/8"	22	100	1-5/8"	5-1/4"	10-1/2"	42,700
1"	26	80	1-3/4"	6"	12"	47,700
1-1/4"	32	80	2"	7"	14"	72,300

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



SALA

Single leg adjustable loop chain sling with master link and style A adjuster, blank other end



SALB

Single leg adjustable loop chain sling with master link and style B adjuster, blank other end

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

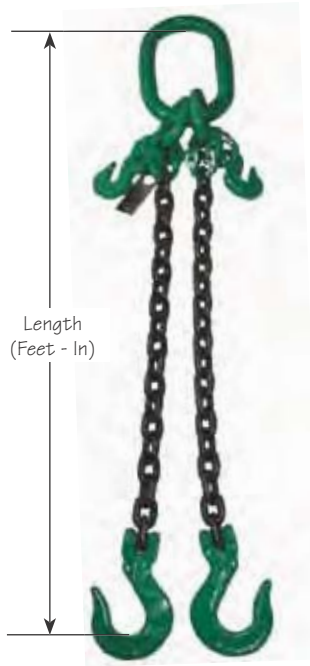
WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	7,400
3/8"	10	100	13/16"	3"	6"	15,200
1/2"	13	100	1-1/8"	4"	8"	26,000
5/8"	16	100	1-1/4"	4"	8"	39,100
3/4"	20	100	1-5/8"	5-1/4"	10-1/2"	61,100
7/8"	22	100	1-7/8"	6"	12"	74,000
1"	26	80	2"	7"	14"	82,600
1-1/4"	32	80	2-1/4"	8"	16"	125,200

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



DAA
Double leg adjustable chain sling with master link and style A adjuster, with sling hooks other end



DAB
Double leg adjustable chain sling with master link and style B adjuster, with sling hooks other end

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Hook latches optional
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

WARNING
See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	7,400
3/8"	10	100	13/16"	3"	6"	15,200
1/2"	13	100	1-1/8"	4"	8"	26,000
5/8"	16	100	1-1/4"	4"	8"	39,100
3/4"	20	100	1-5/8"	5-1/4"	10-1/2"	61,100
7/8"	22	100	1-7/8"	6"	12"	74,000
1"	26	80	2"	7"	14"	82,600
1-1/4"	32	80	2-1/4"	8"	16"	125,200

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



DALA

Double leg adjustable loop chain sling with master link and style A adjuster, blank other ends



DALB

Double leg adjustable loop chain sling with master link and style B adjuster, blank other ends

ALLOY CHAIN SLINGS

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

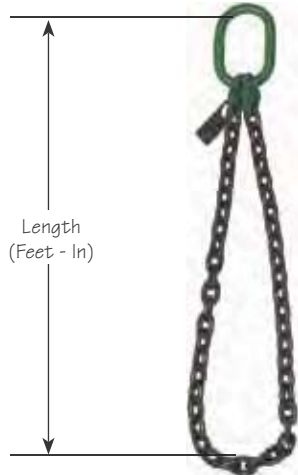
⚠ WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	13/16"	3"	6"	11,200
3/8"	10	100	1-1/8"	4"	8"	22,800
1/2"	13	100	1-1/4"	4"	8"	39,000
5/8"	16	100	1-5/8"	5-1/4"	10-1/2"	58,700
3/4"	20	100	1-7/8"	6"	12"	91,700
7/8"	22	100	2-1/4"	8"	16"	110,900
1"	26	80	2-1/4"	8"	16"	123,900
1-1/4"	32	80	2-3/4"	9"	16"	187,800

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



Length
(Feet - In)

SB

Single basket alloy chain sling
with master link



DB

Double basket alloy chain sling
with master link

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

⚠ WARNING

See alloy chain sling warnings page
for warnings and inspection criteria

SB – Single Basket

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	7,400
3/8"	10	100	13/16"	3"	6"	15,200
1/2"	13	100	1-1/8"	4"	8"	26,000
5/8"	16	100	1-1/4"	4"	8"	39,100
3/4"	20	100	1-5/8"	5-1/4"	10-1/2"	61,100
7/8"	22	100	1-7/8"	6"	12"	74,000
1"	26	80	2"	7"	14"	82,600
1-1/4"	32	80	2-1/4"	8"	16"	125,200

DB – Double Basket

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	13/16"	3"	6"	11,200
3/8"	10	100	1-1/8"	4"	8"	22,800
1/2"	13	100	1-1/4"	4"	8"	39,000
5/8"	16	100	1-5/8"	5-1/4"	10-1/2"	58,700
3/4"	20	100	1-7/8"	6"	12"	91,700
7/8"	22	100	2-1/4"	8"	16"	110,900
1"	26	80	2-1/4"	8"	16"	123,900
1-1/4"	32	80	2-3/4"	9"	16"	187,800

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%



SE

Single endless basket alloy chain sling with master link



DE

Double endless basket alloy chain sling with master link

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

WARNING

See alloy chain sling warnings page for warnings and inspection criteria

SE - Single Endless

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	4,300
3/8"	10	100	13/16"	3"	6"	8,800
1/2"	13	100	1-1/8"	4"	8"	15,000
5/8"	16	100	1-1/8"	4"	8"	22,600
3/4"	20	100	1-1/4"	4"	8"	35,300
7/8"	22	100	1-5/8"	5-1/4"	10-1/2"	42,700
1"	26	80	2"	7"	14"	47,700
1-1/4"	32	80	2-1/4"	8"	16"	72,300

DE - Double Endless

Chain Size	MM	Grade	Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	13/16"	3"	6"	7,400
3/8"	10	100	1-1/8"	4"	8"	15,200
1/2"	13	100	1-1/4"	4"	8"	26,000
5/8"	16	100	1-5/8"	5-1/4"	10-1/2"	39,100
3/4"	20	100	1-7/8"	6"	12"	61,100
7/8"	22	100	1-7/8"	6"	12"	74,000
1"	26	80	2"	7"	14"	82,600
1-1/4"	32	80	2-1/4"	8"	16"	125,200

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%

ALLOY CHAIN SLINGS



DO
Double leg alloy chain sling with master link and blank ends

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

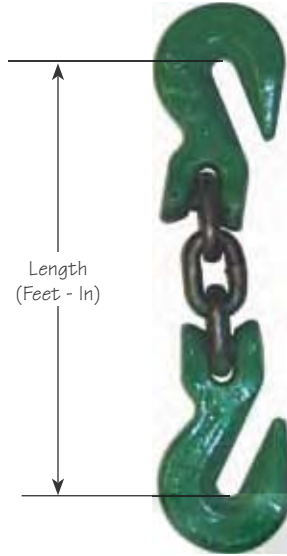
WARNING
See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Top Oblong Link			Rated Capacity at 60° Lbs.
			Nominal Material Size	Inside Dimensions		
				Width	Length	
9/32"	7	100	37/64"	2-1/2"	5"	7,400
3/8"	10	100	13/16"	3"	6"	15,200
1/2"	13	100	1-1/8"	4"	8"	26,000
5/8"	16	100	1-1/4"	4"	8"	39,100
3/4"	20	100	1-5/8"	5-1/4"	10-1/2"	61,100
7/8"	22	100	1-7/8"	6"	12"	74,000
1"	26	80	2"	7"	14"	82,600
1-1/4"	32	80	2-1/4"	8"	16"	125,200

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%

ALLOY CHAIN SLINGS



CS

Single leg alloy chain shortener with grab hook each end.

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

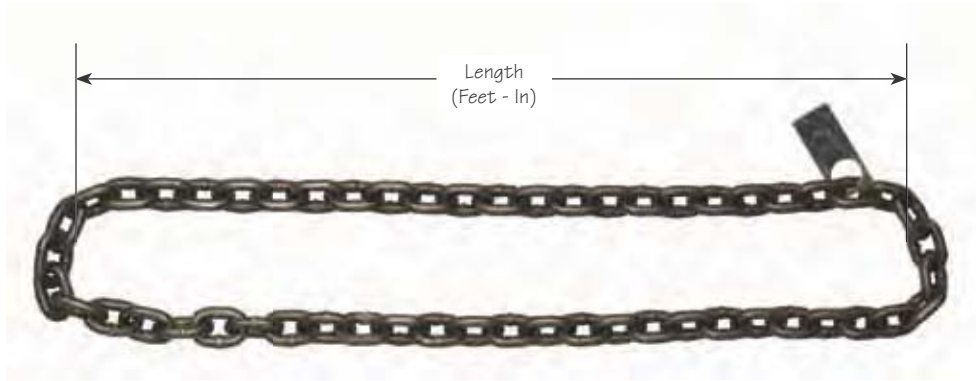
- Include chain size, model, length, and coupling type
- Coupling types: M = mechanical
W = welded

WARNING
See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Length	Rated Capacity (lbs.)
9/32"	7	100	1'1"	4,300
3/8"	10	100	1'3"	8,800
1/2"	13	100	1'8"	15,000
5/8"	16	100	2'0"	22,600
3/4"	20	100	2'4"	35,300
7/8"	22	100	2'8"	42,700
1"	26	80	3'1"	47,700
1-1/4"	32	80	3'10"	72,300

Note:

- Dimensions are approximate



ENC
Endless alloy chain sling

Features:

- Heavy gauge stainless steel tag in accordance with ASME B30.9 and API RP2D
- Proof tested to 2X rated capacity
- Mechanically coupled or welded available
- Grade 100 alloy standard on 9/32" through 7/8"
- Grade 80 alloy standard on 1" and 1-1/4"
- Design factor 4 to 1

How to order:

- Include chain size, model, length, and coupling type
- Coupling types: W = welded only

⚠ WARNING

See alloy chain sling warnings page for warnings and inspection criteria

Chain Size	MM	Grade	Rated Capacity (lbs.)
9/32"	7	100	4,300
3/8"	10	100	8,800
1/2"	13	100	15,000
5/8"	16	100	22,600
3/4"	20	100	35,300
7/8"	22	100	42,700
1"	26	80	47,700
1-1/4"	32	80	72,300

Note:

- Dimensions are approximate
- When using sling in choke hitch, reduce above rated capacity by 20%

ALLOY CHAIN SLINGS

Length
(Feet - In)



SS
Single leg alloy chain with
sling hook one end only



SG
Single leg alloy chain with
grab hook one end only



SO
Single leg alloy chain with
master link one end only

ALLOY CHAIN
SLINGS

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Note:

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- When using sling in choke hitch, reduce above rated capacity by 20%

⚠️ ALLOY CHAIN SLING WARNINGS

When you inspect an alloy chain sling, it shall be taken out of service immediately and returned for repair or replacement when any of the below defects are present.

Missing or illegible sling identification (tag)		Lack of ability of chain or components to hinge freely	
Cracks or breaks to any part of the sling		Weld Splatter	
Excessive wear, nicks, or gouges		Damaged hooks per ASME B30.10	
Stretched chain links or components		Damaged rigging hardware per ASME B30.26	
Bent, twisted, or deformed chain links or components			
Evidence of heat damage			
Excessive pitting or corrosion			

and... Any condition that causes doubt about the continued use of the sling

Alloy Chain Slings Identification, Inspection, Rigging Practices

Welded and mechanically coupled products are designed and built for rugged lasting service. As with any quality product certain precautions and standards of treatment should be observed. Proper care will extend the useful life of the chain sling.

Follow the Guidelines set forth in ASME B30.9 “Slings” standard, OSHA 1910.184 and 1926.251.

Sling Identification

- Each sling shall be marked to show
- Name or trademark of manufacturer
- Grade
- Nominal Chain Size
- Number of Legs
- Rated Loads for the vertical hitch and bridle hitch and the angle upon which it is based
- Length
- Individual sling identification (serial numbers)

Sling identification shall be done by the sling manufacturer and should be maintained by the user so as to be legible during the life of the sling.

Inspection

Alloy Chain Sling inspection falls into 3 categories. Initial, Frequent, and Periodic.

- **Initial Inspection**– Prior to use, all new, altered, modified, or repaired slings shall be inspected by a designated person to verify compliance
- **Frequent Inspection**
 - o A visual inspection for damage shall be performed by the user or other designated person each day or shift the sling is used
 - o Conditions such as those listed in the removal criteria section or any other condition that may result in a hazard shall not be returned to service until approved by a qualified person
 - o Written records are not required for frequent inspections
- **Periodic Inspections**
 - o A complete inspection for damage to the sling shall be periodically performed by a designated person. Each link and component shall be examined individually; taking care to expose and examine all surfaces including the inner link surfaces. The sling shall be examined for conditions such as those listed below in removal criteria section, and a determination made as to whether they constitute a hazard
 - o Periodic Inspection Frequency – Periodic inspection intervals shall not exceed 1 year. The frequency of periodic inspections should be based on:
 - Frequency of sling use
 - Severity of service condition
 - Nature of lifts being made
 - Experience gained on the service life of slings used in similar circumstances
 - o Guidelines for time intervals
 - Normal service – yearly
 - Severe service – monthly to quarterly
 - Special service – as recommended by a qualified person
 - o A written record of the most recent periodic inspection shall be maintained

Removal Criteria

An alloy steel chain sling shall be removed from service if conditions such as the following are present:

- Missing or illegible sling identification
- Cracks or breaks
- Excessive wear, nicks, or gouges. Minimum thickness on chain links shall not be below the values listed in the table on the next page
- Stretched chain links or damage
- Bent, twisted, or deformed chain links or components
- Evidence of heat damage
- Excessive pitting or corrosion
- Lack of ability of chain or components to hinge freely
- Weld splatter
- Hook damage
- Rigging hardware damage
- Other conditions, including visual damage, that cause doubt as to the continued use of the sling

Minimum Allowable Thickness at Any Point on a Link

Nominal Chain or Coupling Link Size		Minimum Allowable Thickness at ANY point on the Link	
In.	Mm	In.	Mm
7/32"	5.5	0.189	4.80
9/32"	7	0.239	6.07
5/16"	8	0.273	6.93
3/8"	10	0.342	8.69
1/2"	13	0.443	11.26
5/8"	16	0.546	13.87
3/4"	20	0.687	17.45
7/8"	22	0.750	19.05
1"	26	0.887	22.53
1-1/4"	32	1.091	27.71

Rigging Practices

- Slings shall be shortened or adjusted only by methods approved by the sling manufacturer or a qualified person
- Slings shall not be shortened or lengthened by knotting or twisting
- The sling shall be hitched in a manner providing control of the load
- Slings in contact with edges, corners or protrusions should be protected with a material of sufficient strength, thickness, and construction to prevent damage
- Shock loading should be avoided
- Loads should not be rested on the sling
- Slings should not be pulled from under a load when the load is resting on the sling
- Twisting and kinking shall be avoided
- During lifting, with or without load, personnel shall be alert for possible snagging
- When using multiple basket or choker hitches, the load should be rigged to prevent the sling from slipping or sliding along the load
- When using a basket hitch, the legs of a sling should contain or support the load from the sides, above the center of gravity, so the load remains under control
- Slings should not be dragged on the floor or over an abrasive surface
- In a choker hitch, the choke point should only be on the sling body, never on a fitting
- In a choker hitch, an angle of choke less than 120 degrees should not be used without reducing the rated load (contact BLP)
- Slings should not be constricted, bunched, or pinched by the load, hook, or any fitting
- The load applied to the hook should be centered in the base of the hook to prevent point loading on the hook, unless the hook is designed for point loading

Environmental Considerations

- Slings should be stored in an area where they will not be subjected to mechanical damage, corrosive action, moisture, extreme temperatures or kinking
- When used at or in contact with extreme temperatures, use the chart on the next page for the effects of temperature

Campbell Chain engineers should be consulted when heat treated chain is used at unusual temperatures (under -20°F [-29°C]) or over 400°F [204°C] or where special applications are required.

Effect of Elevated Temperatures on the Working Load Limit of Alloy Chain

Temperature		Grade of Chain			
F°	C°	Grade 80 (System 8)		Grade 100 (System 10)	
		Reduction of Rated Capacity WHILE at Temperature	Reduction of Rated Capacity AFTER EXPOSURE to Temperature	Reduction of Rated Capacity WHILE at Temperature	Reduction of Rated Capacity AFTER EXPOSURE to Temperature
<400°	<204°	None	None	None	None
400°	204°	10%	None	15%	None
500°	260°	15%	None	25%	5%
600°	316°	20%	5%	30%	15%
700°	371°	30%	10%	40%	20%
800°	427°	40%	15%	50%	25%
900°	482°	50%	20%	60%	30%
1000°	538°	60%	25%	70%	35%
>1000°	>538°	OSHA requires that any chain sling which has experienced temperatures in excess of 1000° F be removed from service.			

Sources:

ASME B30.9 “Slings” Standard

OSHA 1910.184 “Slings”

OSHA 1926.251 “Rigging Equipment for material handling”

Campbell Material Handling Products catalog, August 2008

Alloy Chain Slings Important Terms

Rated Capacity

Rated Capacity (RC) – The “rated capacity” is the maximum combined static and dynamic load in pounds or Kilograms which should ever be applied to the product in service, even when the product is new, and when the load is uniformly applied in direct tension to the product.

Proof Test

The “proof test” is a quality control test applied to chain for the purpose of verifying weld and material quality. It is the minimum force in pounds or newtons that the chain has withstood in direct tension as a part of the manufacturing process. Proof Testing assures that the chain is more than capable of performing at its rated working load limit. Proof test loads are a manufacturing integrity test and shall not be used as criteria for service or design purposes. All Campbell chain and components are proof tested in accordance with the applicable ASTM, NACM, OSHA, and ASME requirements.

Certificate of Test and Tags

Bishop Lifting Products, Inc. and Campbell Chain provide information in several forms that enables purchasers and users to operate safely and effectively in conformity with ASME B30.9 and OSHA requirements. The drop forged or stainless steel tag is attached to each chain sling and provides the following:

1. Grade of Chain
2. Size (chain)
3. Reach (length)
4. Rated Capacity
5. Serial Number
6. Type

A certificate of test is provided for each chain sling manufactured at Bishop Lifting Products, Inc. The Certificate of test contains all of the information provided on the identification tag, plus the Proof Test load as required by OSHA.

Basic Types of Chain Slings

Slings are identified throughout the industry by symbols.

First Symbol (Basic Type)





- S – Single leg
- C – Single leg with master links only (no hooks)
- D – Double leg
- T – Triple leg
- Q – Quadruple leg





Second Symbol

- O – Oblong link on top
- A – Adjustable type sling
- S – Sling hook one end
- G – Grab hook one end
- F – Foundry hook one end





Third Symbol





- S – Sling hook
- G – Grab hook
- F – Foundry hook
- SL – Self-locking hook
- PC – Plate clamps
- X – Special fittings

Single Leg Chain Slings								
	CO		SSS		SGG		SSG	
Size	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.
9/32"	5.77	0.74	4.36	0.74	2.92	0.74	3.64	0.74
3/8"	8.7	1.48	8.86	1.48	6.93	1.48	7.89	1.48
1/2"	19.61	2.5	15.9	2.5	11.15	2.5	13.53	2.5
5/8"	22.75	3.79	23.97	3.79	18.97	3.79	21.47	3.79
3/4"	32.73	6.1	43.77	6.1	34.05	6.1	38.91	6.1
7/8"	49.37	7.75	47.7	7.75	38.66	7.75	43.18	7.75
1"	74.47	9.65	66.55	9.65	55.82	9.65	61.18	9.65
1-1/4"	99.46	15.25	88.47	15.25	96.64	15.25	92.55	15.25





Single Leg Chain Sling (Continued)								
	SOG		SOS		SOF		SOSL	
Size	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.
9/32"	4.35	0.74	5.06	0.74	6.08	0.74	6.05	0.74
3/8"	7.81	1.48	8.78	1.48	10	1.48	9.99	1.48
1/2"	15.38	2.5	17.76	2.5	19.78	2.5	20.88	2.5
5/8"	20.86	3.79	23.36	3.79	26.47	3.79	27.74	3.79
3/4"	33.39	6.1	38.25	6.1	38.52	6.1	35.7	6.1
7/8"	44.01	7.75	48.53	7.75	54.68	7.75	56.1	7.75
1"	65.15	9.65	70.51	9.65	79.85	9.65	91.58	9.65
1-1/4"	98.05	15.25	93.96	15.25	115.18	15.25		

ALLOY CHAIN SLINGS



Double Leg Chain Slings								
	DOG		DOS		DOF		DOSL	
Size	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.
9/32"	6.79	1.48	8.22	1.48	10.27	1.48	10.2	1.48
3/8"	13	2.96	14.92	2.96	17.37	2.96	17.35	2.96
1/2"	23.98	5	28.73	5	32.78	5	34.98	5
5/8"	37.36	7.58	42.36	7.58	48.58	7.58	51.13	7.58
3/4"	64.79	12.2	74.5	12.2	75.05	12.2	69.4	12.2
7/8"	77	15.5	86.04	15.5	98.34	15.5	101.18	15.5
1"	107.39	19.3	118.12	19.3	136.8	19.3	160.26	19.3
1-1/4"	169.61	30.5	161.45	30.5	203.88	30.5		



Triple Leg Chain Slings								
	TOG		TOS		TOF		TOSL	
Size	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.
9/32"	9.79	2.22	11.94	2.22	15	2.22	14.9	2.22
3/8"	21.58	4.44	24.47	4.44	28.13	4.44	28.1	4.44
1/2"	35	7.5	42.13	7.5	48.2	7.5	51.5	7.5
5/8"	58.8	11.37	66.31	11.37	75.64	11.37	79.46	11.37
3/4"	95.25	18.3	109.83	18.3	110.64	18.3	102.17	18.3
7/8"	118.76	23.25	132.32	23.25	150.77	23.25	155.03	23.25
1"	153.75	28.95	169.84	28.95	197.86	28.95	233.05	28.95
1-1/4"	173.42	45.75	248.87	45.75	312.52	45.75		

ALLOY CHAIN
SLINGS

Quadruple Leg Chain Slings								
	QOG		QOS		QOF		QOSL	
Size	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.	3' base	adder/ft.
9/32"	13.27	2.96	16.13	2.96	20.21	2.96	20.07	2.96
3/8"	27.81	5.92	31.66	5.92	36.54	5.92	36.51	5.92
1/2"	46.6	10	55.8	10	63.6	10	68.3	10
5/8"	77.37	15.16	87.39	15.16	99.82	15.16	104.92	15.16
3/4"	126.52	24.4	145.96	24.4	147.04	24.4	135.74	24.4
7/8"	136.75	31	154.82	31	179.43	31	185.1	31
1"	187.01	38.6	208.46	38.6	245.82	38.6	292.74	38.6
1-1/4"	318.92	61	302.59	61	387.46	61		

ALLOY CHAIN
SLINGS

Single Leg Chain Slings, Adjustable				
	SAA		SAB	
Size	3' base	adder/ft.	3' base	adder/ft.
9/32"	5.83	0.74	6.57	0.74
3/8"	10.93	1.48	12.41	1.48
1/2"	22.01	2.5	24.51	2.5
5/8"	31.26	3.79	35.05	3.79
3/4"	53.05	6.1	59.15	6.1
7/8"	65.08	7.75	72.83	7.75
1"	98.84	9.65	108.49	9.65
1-1/4"	147.8	15.25	163.05	15.25



Single Leg Chain Slings, Adjustable Loop				
	SALA		SALB	
Size	3' base	adder/ft.	3' base	adder/ft.
9/32"	4.76	0.74	5.5	0.74
3/8"	8.72	1.48	10.2	1.48
1/2"	17.81	2.5	20.31	2.5
5/8"	24.96	3.79	28.75	3.79
3/4"	40.32	6.1	46.42	6.1
7/8"	52.86	7.75	60.61	7.75
1"	80.04	9.65	89.69	9.65
1-1/4"	126.44	15.25	141.69	15.25

Double Leg Chain Slings, Adjustable				
	DAA		DAB	
	Size	3' base	adder/ft.	3' base
9/32"	9.76	1.48	11.24	1.48
3/8"	19.22	2.96	22.18	2.96
1/2"	37.23	5	42.23	5
5/8"	58.16	7.58	65.74	7.58
3/4"	104.1	12.2	116.3	12.2
7/8"	119.14	15.5	134.64	15.5
1"	174.78	19.3	194.08	19.3
1-1/4"	269.13	30.5	299.63	30.5

Double Leg Chain Slings, Adjustable Loop				
	DALA		DALB	
	Size	3' base	adder/ft.	3' base
9/32"	7.63	1.48	9.11	1.48
3/8"	14.81	2.96	17.77	2.96
1/2"	28.83	5	33.83	5
5/8"	45.56	7.58	53.14	7.58
3/4"	78.63	12.2	90.83	12.2
7/8"	94.69	15.5	110.19	15.5
1"	137.18	19.3	156.48	19.3
1-1/4"	226.41	30.5	256.91	30.5

Basket Chain Slings				
	SB		DB	
	Size	3' base	adder/ft.	3' base
9/32"	6.09	1.48	11.86	2.96
3/8"	10.51	2.96	22.83	5.92
1/2"	20.33	5	39	10
5/8"	29.76	7.58	62.18	15.16
3/4"	49.03	12.2	95.02	24.4
7/8"	61.59	15.5	105.93	31
1"	80.52	19.3	133.27	38.6
1-1/4"	118.73	30.5	217.15	61

Endless Basket Chain Slings				
	SE		DE	
	Size	3' base	adder/ft.	3' base
9/32"	5.9	1.48	10.77	2.96
3/8"	10.27	2.96	21.53	5.92
1/2"	19.38	5	36.3	10
5/8"	28.31	7.58	56.91	15.16
3/4"	46.93	12.2	85.93	24.4
7/8"	60.65	15.5	109.53	31
1"	76.82	19.3	133.27	38.6
1-1/4"	111.83	30.5	217.15	61

Chain Shortener & Endless Chain Slings			
	CS	ENC	
Size	3 links	3' base	adder/ft.
9/32"	1.16	4.62	1.48
3/8"	3.65	9.12	2.96
1/2"	6.18	15.95	5
5/8"	12.23	24.19	7.58
3/4"	24.69	38.7	12.2
7/8"	38.33	47.44	15.5
1"	63.41	61.6	19.3
1-1/4"	121.03	98.4	30.5

ALLOY CHAIN
SLINGS