Product in use: 38DOGW8X8

CHAIN SLING BASICS

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

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

Features and Benefits

Promotes Safety

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

Saves Money

- Alloy Steel construction and black oxide finish assures long life.
- Can be repaired, proof-tested, and recertified by *Lift-All*.

Saves Time

- Easy to inspect for damage.
- Stores easily.

Use of Chain Under Temperature Conditions

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

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

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

HOW TO ORDER CHAIN SLINGS

932 D O S W 10 X 12

Define Chain Dia.
9/32" shown in example

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

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

Bottom Attachments
S – Sling Hook
G – Grab Hook
F – Foundry Hook
L – Latchlok Eye Hook

Adjustable Slings
A – Loop Style A
B – Loop Style B
SA – Style A
SB – Style B
Endless – Leave Blank

Mechanical or Welded Couplers
M – Mechanical
W – Welded

Chain Grade
8 – Grade 80
10 – Grade 100

'X'

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

CHAIN SLING BASICS

Grade 100

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

Grade 80

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

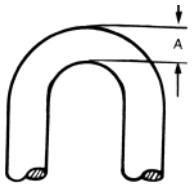
All Chain Slings

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

Chain Wear Allowance

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

Chain Size (in.)	Minimum Allowable Thickness A (in.)
7/32	0.189
9/32	0.239
3/8	0.342
1/2	0.443
5/8	0.546
3/4	0.687
7/8	0.750
1	0.887
1-1/4	1.091



Minimum thickness based on ASME recommendations.

[1]Rated Capacity For Chain Slings

Size of Chain			90°	60°	45°	30°	60°	45°	30°		Approx.	
Grade	Nominal Size (in.)	Nominal Size (mm.)	Single Chain Sling (lbs.)	Double Chain Sling* (lbs.)			Triple & Quad Chain Slings* (lbs.)**			Inside Nominal Dim. LxW (in.)	No. of Links per ft.	Wgt. per 100 ft. (lbs.)
100	7/32	5.5	2,700	4,700	3,800	2,700	7,000	5,700	4,000	0.68x0.31	17.8	44
100	9/32	7.0	4,300	7,400	6,100	4,300	11,200	9,100	6,400	0.88x0.40	13.6	73
100	3/8	10.0	8,800	15,200	12,400	8,800	22,900	18,700	13,200	1.25x0.56	9.6	144
100	1/2	13.0	15,000	26,000	21,200	15,000	39,000	31,800	22,500	1.56x0.72	7.7	246
100	5/8	16.0	22,600	39,100	32,000	22,600	58,700	47,900	33,900	1.92x0.84	6.3	370
100	3/4	20.0	35,300	61,100	49,900	35,300	91,700	74,900	53,000	2.40x1.05	5.0	580
80	7/8	22.0	34,200	59,200	48,400	34,200	88,900	72,500	51,300	2.25x1.10	5.3	776
80	1	26.0	47,700	82,600	67,400	47,700	123,900	101,200	71,500	3.07x1.44	4.5	995
80	1-1/4	32.0	72,300	125,200	102,200	72,300	187,800	153,400	108,400	3.92x1.60	3.7	1,571

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

** A **Quad Chain Sling** may not sustain the load evenly on each of its four legs. The maximum working load limits are therefore set at the same values as the **Triple Chain Slings** of equal quality and size, and used with branches at the same angle of inclinations.

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

CHAIN SLINGS

SINGLE LEG CHAIN SLINGS

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

[1] Rated Capacity also referred to as Working Load Limit.
When using chain slings in a choke hitch, reduce the sling's rated capacity by 20%.
**Cradle grab hooks are standard, non-cradle hooks are available on request.

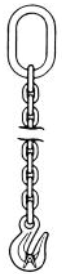
SOS
Sling Hook


SOL
Latchlok Hook

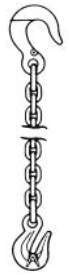

CO
Oblong Link


SOF
Foundry Hook


SSS
Sling Hook/
Sling Hook


SOG**
Grab Hook

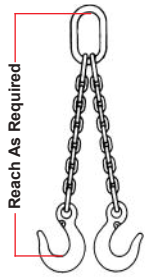

SGG**
Grab Hook/
Grab Hook


SGS**
Grab Hook/
Sling Hook

DOUBLE LEG CHAIN SLINGS

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

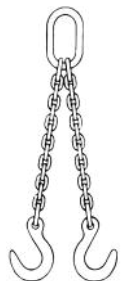
[1] Rated Capacity also referred to as Working Load Limit.
When using chain slings in a choke hitch, reduce the sling's rated capacity by 20%.
**Cradle grab hooks are standard, non-cradle hooks are available on request.



DOS
Sling Hook


DOL
Latchlok Hook


DOG**
Grab Hook


DOF
Foundry Hook

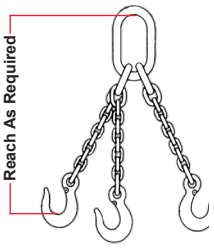
* **WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

CHAIN SLINGS

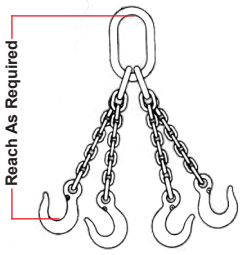
TRIPLE & QUAD CHAIN SLINGS

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

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



TOS
Sling Hook

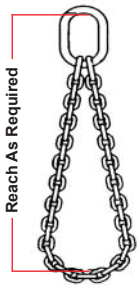


QOS
Sling Hook

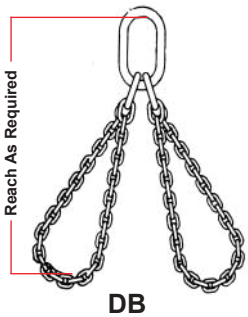
BASKET TYPE CHAIN SLINGS

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

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



SB
Single Basket Type



DB
Double Basket Type

ENDLESS BASKET CHAIN SLINGS[2]

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

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

SE
Single Endless

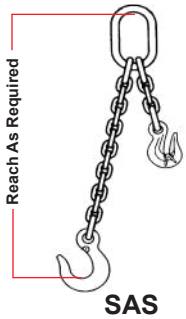
DE
Double Endless

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

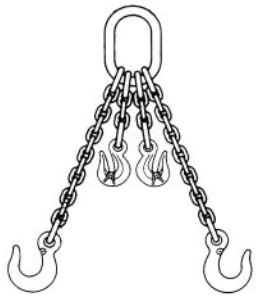
CHAIN SLINGS

SINGLE & DOUBLE LEG ADJUSTABLE CHAIN SLINGS***

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



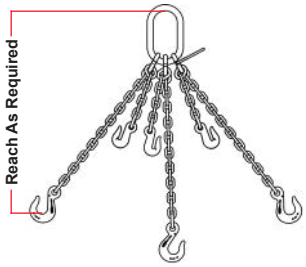
SAS
Style B**



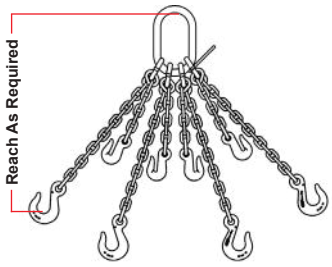
DAS
Style B**

TRIPLE & QUAD LEG ADJUSTABLE CHAIN SLINGS***

Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	
	Grade 80	Grade 100
7/32	5,450	7,000
9/32	9,100	11,200
3/8	18,400	22,900
1/2	31,200	39,000
5/8	47,000	58,700
3/4	73,500	91,700
7/8	88,900	-
1	123,900	-
1-1/4	187,800	-



TAS
Style B**

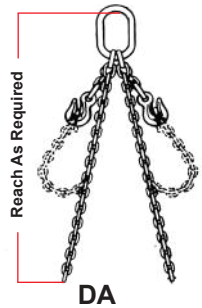


QAS
Style B**

ADJUSTABLE LOOP CHAIN SLINGS***

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

SA
Style B**



DA
Style B**

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

[1] Rated Capacity also referred to as Working Load Limit.
** Style B slings are furnished with approximately one foot of chain.
*** Cradle grab hooks standard; non-cradle hooks available on request.
When using chain slings in a choke hitch, reduce the sling's rated capacity by 20%.

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

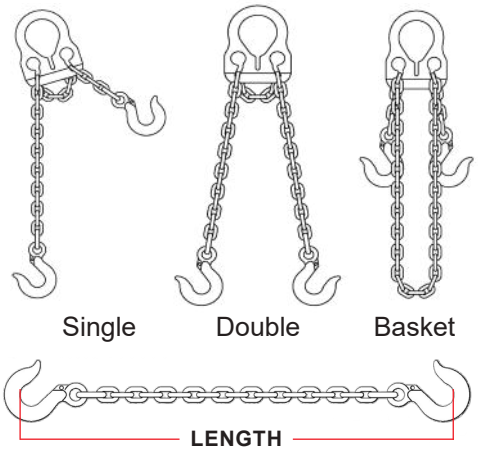
ADJUST-A-LINK™ GRADE 100 CHAIN SLINGS

The most versatile adjustable chain sling available.

Features and Benefits

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

Part Number		Chain Size (in.)	Rated Capacity* (lbs.)			Latch Kit Part Number
			Single @ 90°	Double		
With Latch	Without Latch			60°	45°	
6 ft. Length						
30001LG10	30001G10	7/32	2,700	4,700	3,800	4404
30003LG10	30003G10	9/32	4,300	7,400	6,000	
10 ft. Length						
30002LG10	30002G10	7/32	2,700	4,700	3,800	4404
30004LG10	30004G10	9/32	4,300	7,400	6,000	
30005LG10	30005G10	3/8	8,800	15,200	12,400	38LK
30007L	30007	1/2⁺	12,000	20,800	16,300	12LK
14 ft. Length						
30006LG10	30006G10	3/8	8,800	15,200	12,400	38LK
30008L	30008	1/2⁺	12,000	20,800	16,300	12LK

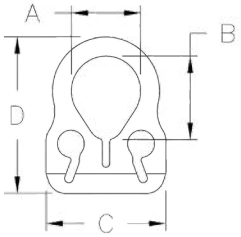


⁺ 1/2” size master link is flame cut, not forged; uses G80 capacity ratings.

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

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

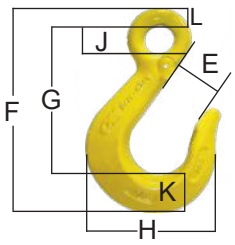
⁺ 1/2” size master link is flame cut, not forged; uses G80 capacity ratings.



Flame Cut Master Link

Chain must be seated at the base of adjusting slot of the master control link.

Hook Dimensions (in.)							
Chain Size (in.)	E	F	G	H	J	K	L
7/32	0.85	3.78	2.62	2.69	0.55	0.87	0.30
9/32	1.01	4.41	3.01	3.19	0.64	1.03	0.37
3/8	1.44	6.66	4.77	4.33	0.91	1.30	0.58
1/2	1.78	8.16	5.69	5.50	1.13	1.66	0.75



* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. *Adjust-A-Link* Slings should not be used at angles of less than 45°. Refer to the chain chart on this page and the Effect of Angle chart in the General Information section of this catalog.

INSPECTION CRITERIA FOR CHAIN

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

Stretched Chain Links

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

TO PREVENT
Avoid overloading and shock loading.

Bent Chain Links

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

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

Weld Spatter

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

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

Gauged Chain Links

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

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

Scan and learn more about chain sling inspection criteria.

INSPECTION CRITERIA FOR CHAIN

Heat Damage

WHAT TO LOOK FOR
Discolored areas of chain.

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

Worn Chain Links

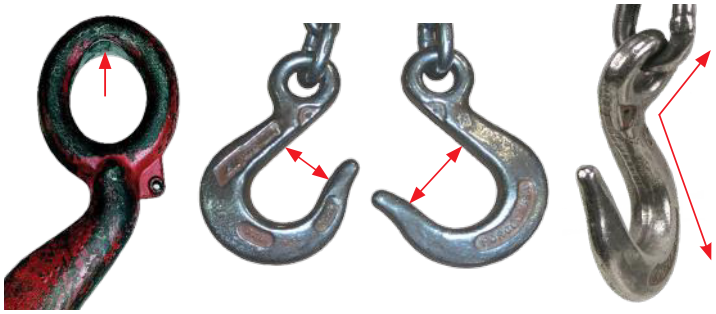
WHAT TO LOOK FOR
Excessive wear and a reduction of the material diameter, especially at the bearing points. Refer to *Lift-All* Wear Allowance Table for minimum allowable link thickness.

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

Damaged Hardware

WHAT TO LOOK FOR
Wear on any area of the hook exceeding 10% (or as recommended by the manufacturer) or hooks showing any bend or twist from the plane of the unbent hook should be removed from service.

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



Illegible or Missing Tags

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

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