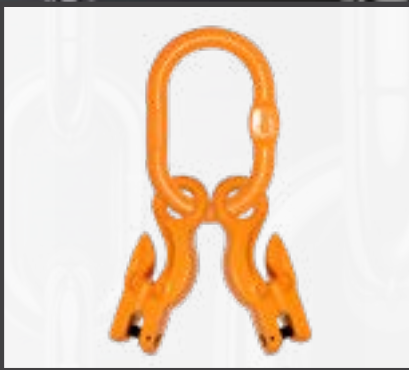


X100[®]

by  ADVANTAGE

X100 CHAIN & HARDWARE



GRADE 100 CHAIN & HARDWARE

ADVANTAGE

SALES & SUPPLY CO., INC.



TABLE OF CONTENTS

WARNINGS, DEFINITIONS, AND CAUTIONS 4

CHAIN SLING COMPONENT REFERENCE..... 6

X100 HARDWARE..... 5-17

X100 CHAIN & HARDWARE MARKING 18

X100 CHAIN & CHAIN SLINGS..... 19-21

X100 OFF-THE-SHELF SLINGS..... 22-23

TESTING 24

GUIDELINES & REMOVAL 25

INDEX..... 26

X100 GRADE 100 CHAIN AND LIFTING PRODUCTS

X100 is your solution when looking for a Grade 100 chain and hardware product line that is safe, cost effective, and readily available. Our eye-catching, HI-VIZ safety orange makes X100 easily identifiable for the end user. Made from forged, super-alloy steel, the X100 line holds the perfect balance between the sticker shock of the other brands, and the safety, quality, and testing you expect. Each piece of hardware is proof loaded at 2 times working load limit. All load pins are 100% individually inspected and tested. All X100 items are put through a rigorous 100% mag-particle crack detection procedure. Each batch is fatigue tested at 1.5 times working load limit for 20,000 cycles. The markings are clear, including our X100 brand marking, and this chain and hardware line adheres to the governing codes set forth by ASME B30 when constructing chain and/or wire rope slings.

NOTE: Please read our warnings, definitions and cautions on page 4 for safety and testing information.

PROUD MEMBERS:



⚠ WARNINGS, DEFINITIONS, AND CAUTIONS ⚠

- Working Load Limit:** The Working Load Limit or Safe Working Load is the maximum load which should ever be applied to the product under any condition. The Working Load Limit is based on a load being uniformly applied in a straight line pull.
- Breaking Strength:** Do NOT use Breaking Strength for design or rating purposes. Use the Working Load Limit instead. Breaking Strength is an average figure at which samples have been found to break under laboratory conditions in straight line pulls with constantly increasing loads. Generally, that design factor is a 3:1, 4:1, or 5:1 ratio. These conditions are rarely duplicated in actual use. The Breaking Strength applies to new and unused wire rod for Wire Rope, Aircraft Cable, and Chain.
- Proof Load:** The load a product can withstand during quality control test for the purpose of detecting defects and deformation in the material, usually twice the Working Load Limit.
- Matching Components:** All attachments used with chain and wire rope must be of suitable material, type and strength to provide adequate safety protection. Attachments should have Working Load Limits at least equal to the other components with which they are used.
- Inspection Warning:** No product can operate indefinitely at its rated capacity. Cable, wire rope, chain, synthetic rigging products and their attachments must be inspected regularly by a trained or qualified individual for visible damage, distortion, elongation, corrosion, cracks, nicks, or abrasion, which may cause failure or reduce the strength or ability of the product to perform safely. Refer to ASME B30.9 for more information.
- Shock Loads:** Loads which exceed the static load caused by a rapid change of movement, such as jerking (slack-to-taut), impacting, or swinging of load. Working Load Limits will not apply during shock loads.
- Warnings:**
- A qualified person must complete a pre-lift inspection of all below-the-hook lifting devices.
 - No product can operate indefinitely at its rated capacity.
 - Always know the weight of your load.
 - Avoid side loads and sharp edges.
 - Shock loading is prohibited.
 - Keep out from under raised loads.
 - Never exceed the Working Load Limit.
 - Inspect your X100 rigging products regularly.
 - Do not drag slings on the floor.
 - Chain Slings should not be shortened with twists, knots, bolts, or other make-shift devices.
 - Never tip load hooks or use hooks with inoperable latches.
 - High temperatures can reduce working loads, please see page 25.
- Industry Standards:** Meets or exceeds all specifications set forth by NACM 2010 & ASME B30.9



X100[®] HARDWARE

APPROVED FOR OVERHEAD LIFTING



X100 CHAIN SLING COMPONENT REFERENCE

SINGLE LEG CHAIN SLINGS

Chain Size (in)	Oblong Master Link	Oblong Master Link w/ Adjuster	Coupling Link	Clevis Sling Hook	Eye Sling Hook	Clevis Grab Hook w/ Cradle	Eye Grab Hook	Eye Grab w/ Clevis Adjuster	Clevis Self-Locking Hook	Eye Self-Locking Hook	Swivel Self-Locking Hook
9/32"	XML13i	XV1-7/8i	XCL281i	XCS281i	XES281i	XCG281i	XEG281i	XEG281-312ADJi	XCSL281i	XESL281i	XSSL281-312i
5/16"	XML16i	XV1-7/8i	XCL312i	XCS312i	XES312i	XCG312i	XEG312i	XEG281-312ADJi	XCSL312i	XESL312i	XSSL281-312i
3/8"	XML19i	XV1-10i	XCL375i	XCS375i	XES375i	XCG375i	XEG375i	XEG375ADJi	XCSL375i	XESL375i	XSSL375i
1/2"	XML22i	XV1-13i	XCL500i	XCS500i	XES500i	XCG500i	XEG500i	XEG500ADJi	XCSL500i	XESL500i	XSSL500i
5/8"	XML26i	XV1-16i	XCL625i	XCS625i	XES625i	XCG625i	XEG625i	XEG625ADJi	XCSL625i	XESL625i	XSSL625i
3/4"	XML32i	-	XCL750i	XCS750i	XES750i	XCG750i	XEG750i	XEG750ADJi	XCSL750i	-	-

DOUBLE LEG CHAIN SLINGS

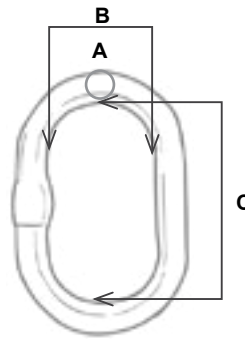
Chain Size (in)	Oblong Master Link	Oblong Master Link w/ Adjuster	Coupling Link	Clevis Sling Hook	Eye Sling Hook	Clevis Grab Hook w/ Cradle	Eye Grab Hook	Eye Grab w/ Clevis Adjuster	Clevis Self-Locking Hook	Eye Self-Locking Hook	Swivel Self-Locking Hook
9/32"	XML16i	XV2-7/8i	XCL281i	XCS281i	XES281i	XCG281i	XEG281i	XEG281-312ADJi	XCSL281i	XESL281i	XSSL281-312i
5/16"	XML19i	XV2-7/8i	XCL312i	XCS312i	XES312i	XCG312i	XEG312i	XEG281-312ADJi	XCSL312i	XESL312i	XSSL281-312i
3/8"	XML22i	XV2-10i	XCL375i	XCS375i	XES375i	XCG375i	XEG375i	XEG375ADJi	XCSL375i	XESL375i	XSSL375i
1/2"	XML26i	XV2-13i	XCL500i	XCS500i	XES500i	XCG500i	XEG500i	XEG500ADJi	XCSL500i	XESL500i	XSSL500i
5/8"	XML32i	XV2-16i	XCL625i	XCS625i	XES625i	XCG625i	XEG625i	XEG625ADJi	XCSL625i	XESL625i	XSSL625i
3/4"	XML38i	-	XCL750i	XCS750i	XES750i	XCG750i	XEG750i	XEG750ADJi	XCSL750i	-	-

TRIPLE & QUADRUPLE LEG CHAIN SLINGS

Chain Size (in)	Oblong Master Link w/ Small Sub-Assemblies	Oblong Master Link w/ Large Sub-Assemblies	Oblong Master Link w/ Adjuster	Coupling Link	Clevis Sling Hook	Eye Sling Hook	Clevis Grab Hook w/ Cradle	Eye Grab Hook	Eye Grab w/ Clevis Adjuster	Clevis Self-Locking Hook	Eye Self-Locking Hook	Swivel Self-Locking Hook
9/32"	XMLSA19i	XMLOSSA19i	XV4-7/8i	XCL281i	XCS281i	XES281i	XCG281i	XEG281i	XEG281-312ADJi	XCSL281i	XESL281i	XSSL281-312i
5/16"	XMLSA22i	XMLOSSA22i	XV4-7/8i	XCL312i	XCS312i	XES312i	XCG312i	XEG312i	XEG281-312ADJi	XCSL312i	XESL312i	XSSL281-312i
3/8"	XMLSA26i	XMLOSSA26i	XV4-10i	XCL375i	XCS375i	XES375i	XCG375i	XEG375i	XEG375ADJi	XCSL375i	XESL375i	XSSL375i
1/2"	XMLSA32i	XMLOSSA32i	XV4-13i	XCL500i	XCS500i	XES500i	XCG500i	XEG500i	XEG500ADJi	XCSL500i	XESL500i	XSSL500i
5/8"	XMLSA38i	XMLOSSA38i	XV4-16i	XCL625i	XCS625i	XES625i	XCG625i	XEG625i	XEG625ADJi	XCSL625i	XESL625i	XSSL625i
3/4"	-	-	-	XCL750i	XCS750i	XES750i	XCG750i	XEG750i	XEG750ADJi	XCSL750i	-	-

X100 GRADE 100 MASTER LINK

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- With flat spot

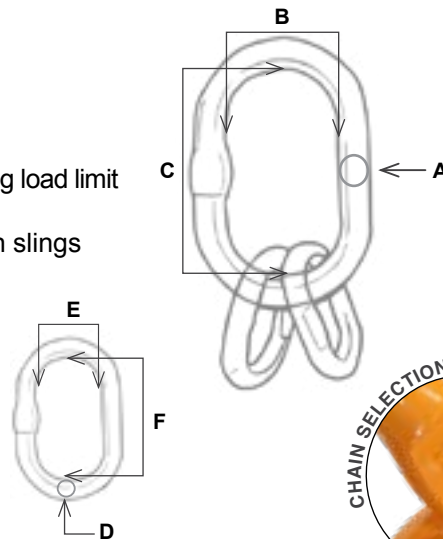


STOCK NUMBER	SIZE	SIZE			WORKING LOAD LIMIT	
		A	B	C	5:1	4:1
XML13	1/2"	0.51"	2.77"	5.00"	4,800 lbs.	6,000 lbs.
XML16	5/8"	0.63"	2.77"	6.00"	6,880 lbs.	8,600 lbs.
XML19	3/4"	0.71"	2.95"	6.00"	10,320 lbs.	12,900 lbs.
XML22	7/8"	0.91"	3.54"	6.30"	14,080 lbs.	17,600 lbs.
XML26	1"	1.06"	3.65"	7.09"	24,000 lbs.	30,000 lbs.
XML32	1 1/4"	1.30"	4.33"	8.80"	31,280 lbs.	39,100 lbs.
XML38	1 1/2"	1.42"	5.51"	10.90"	48,880 lbs.	61,100 lbs.
XML45	1 3/4"	1.77"	7.09"	13.39"	63,440 lbs.	79,300 lbs.
XML50	2"	1.97"	7.48"	13.78"	82,880 lbs.	103,600 lbs.

WARNING: 5:1 working load limit ratio is for wire rope and synthetic slings. 4:1 working load limit ratio is for chain slings. Use caution when determining and selecting which master link is needed.

X100 GRADE 100 MASTER LINK SUB ASSEMBLY

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- For use in fabricating 3 & 4-Leg chain slings
- With flat spots

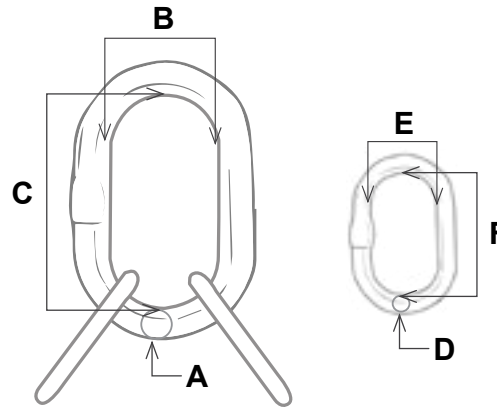


CHAIN SELECTION AID

STOCK NUMBER	SIZE	CHAIN SIZE	DIMENSIONS						WORKING LOAD LIMIT
			A	B	C	D	E	F	
XMLSA19	3/4"	9/32"	.75"	2.77"	5.51"	.51"	1.54"	3.26"	11,200 lbs.
XMLSA22	7/8"	5/16"	.91"	3.54"	6.30"	.65"	1.54"	3.26"	15,200 lbs.
XMLSA26	1"	3/8"	1.06"	3.62"	7.21"	.75"	2.15"	4.00"	26,000 lbs.
XMLSA32	1 1/4"	1/2"	1.30"	4.33"	8.78"	.91"	2.26"	4.00"	39,000 lbs.
XMLSA38	1 1/2"	5/8"	1.50"	5.51"	10.70"	1.06"	4.06"	7.20"	61,100 lbs.

See page 20 for Working Load Limit information.

X100 GRADE 100 MASTER LINK WITH OVERSIZED SUB ASSEMBLIES

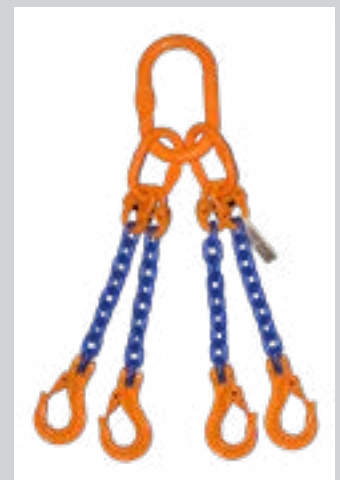
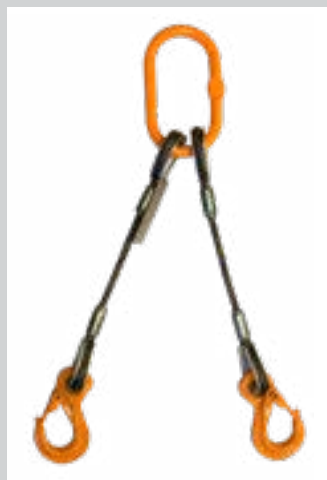
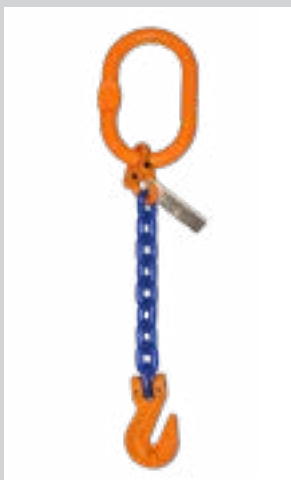


- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Wider Sub Assemblies for easier wire rope splicing
- With flat spots

STOCK NUMBER	SIZE	MASTER LINK DIMENSIONS			SUB ASSEMBLY DIMENSIONS			WORKING LOAD LIMIT	
		A	B	C	D	E	F	5:1	4:1
XMLOSSA19i	3/4"	0.787"	3.74"	6.29"	0.551"	2.75"	4.72"	8,960 lbs.	11,200 lbs.
XMLOSSA22i	7/8"	0.905"	4.33"	6.29"	0.629"	3.15"	5.51"	12,160 lbs.	15,200 lbs.
XMLOSSA26i	1"	4.33"	4.33"	7.48"	0.787"	3.74"	6.29"	18,320 lbs.	22,900 lbs.
XMLOSSA32i	1 1/4"	6.29"	5.11"	9.05"	1.063"	4.33"	7.48"	31,760 lbs.	39,700 lbs.
XMLOSSA38i	1 1/2"	0.629"	5.91"	10.82"	1.496"	5.11"	9.05"	48,880 lbs.	61,100 lbs.

WARNING: 5:1 working load limit ratio is for wire rope and synthetic slings. 4:1 working load limit ratio is for chain slings. Use caution when determining and selecting which master link is needed.

EXAMPLES OF TYPICAL X100 MASTER LINK APPLICATIONS



X100 GRADE 100 MASTER LINK WITH ADJUSTERS

FOR SINGLE LEG CHAIN SLINGS

STOCK NUMBER	SIZE	DIMENSIONS		
		A	B	C
XV1-7/8i	9/32"-5/16"	0.551"	2.75"	4.72"
XV1-10i	3/8"	0.669"	3.15"	5.51"
XV1-13i	1/2"	0.866"	3.74"	6.29"
XV1-16i	5/8"	0.984"	4.33"	7.48"

See page 20 for Working Load Limit information.

WARNING: Adjuster hook is not to be used in a basket application. Adjuster hook should only be used for leg length adjustment.

FOR DOUBLE LEG CHAIN SLINGS

STOCK NUMBER	SIZE	DIMENSIONS		
		A	B	C
XV2-7/8i	9/32"-5/16"	0.669"	3.15"	5.51"
XV2-10i	3/8"	0.866"	3.74"	6.29"
XV2-13i	1/2"	0.984"	4.33"	7.48"
XV2-16i	5/8"	1.26"	5.11"	9.05"

See page 20 for Working Load Limit information.

WARNING: Adjuster hook is not to be used in a basket application. Adjuster hook should only be used for leg length adjustment.

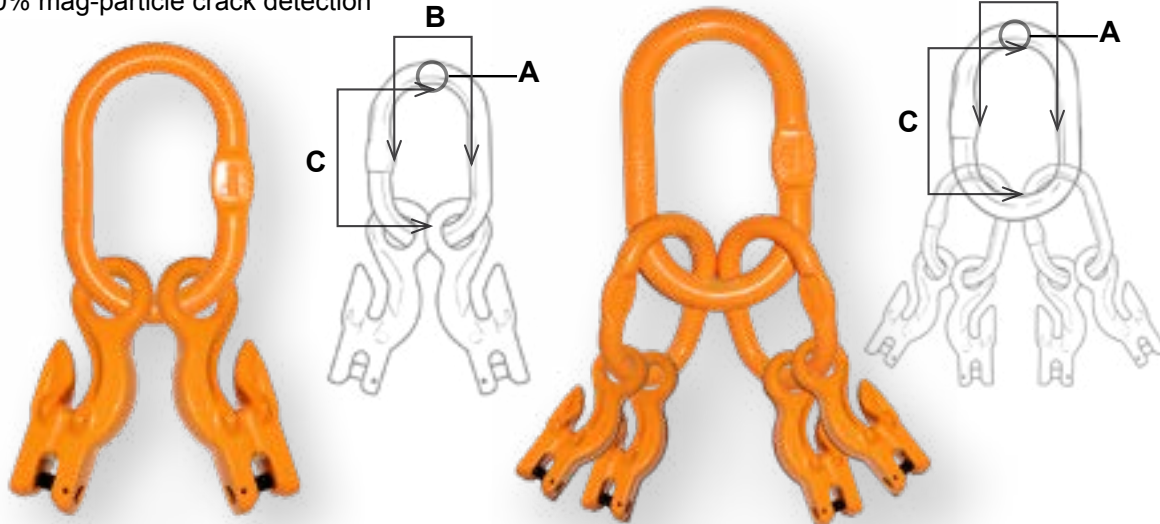
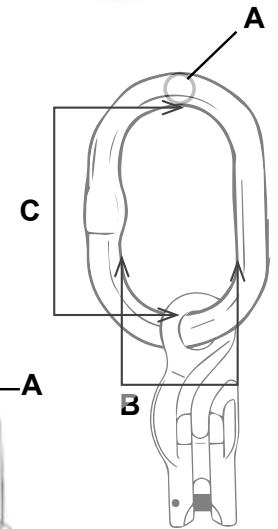
FOR TRIPLE AND QUADRUPLE LEG CHAIN SLINGS

STOCK NUMBER	SIZE	DIMENSIONS		
		A	B	C
XV4-7/8i	9/32"-5/16"	0.669"	3.15"	5.51"
XV4-10i	3/8"	0.866"	3.74"	6.29"
XV4-13i	1/2"	0.984"	4.33"	7.48"
XV4-16i	5/8"	1.26"	5.11"	9.05"

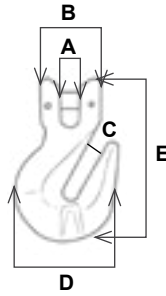
See page 20 for Working Load Limit information.

WARNING: Adjuster hook is not to be used in a basket application. Adjuster hook should only be used for leg length adjustment.

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



X100 GRADE 100 CLEVIS GRAB HOOK WITH CRADLE



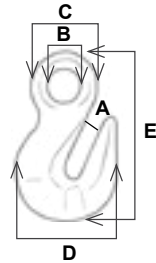
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- All load pins are 100% individually inspected
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Double retaining pin designed for reduced pin wear



AVAILABLE WITH KEEPER PIN

STOCK NUMBER	SIZE	DIMENSIONS					WORKING LOAD LIMIT
		A	B	C	D	E	
XCG281	9/32"	0.31"	1.30"	0.35"	1.77"	3.03"	4,300 lbs.
XCG312	5/6"	0.37"	1.42"	0.43"	2.09"	3.70"	5,700 lbs.
XCG375	3/8"	0.47"	1.87"	0.53"	2.89"	5.03"	8,800 lbs.
XCG500	1/2"	0.59"	2.32"	0.65"	3.78"	6.44"	15,000 lbs.
XCG625	5/8"	0.72"	2.76"	0.76"	4.43"	7.22"	22,600 lbs.
XCG750	3/4"	0.90"	3.30"	0.91"	5.32"	8.90"	35,300 lbs.

X100 GRADE 100 EYE GRAB HOOK WITH CRADLE



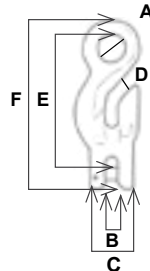
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



AVAILABLE WITH KEEPER PIN

STOCK NUMBER	SIZE	DIMENSIONS					WORKING LOAD LIMIT
		A	B	C	D	E	
XEG281	9/32"	0.33"	0.59"	1.22"	1.73"	2.87"	4,300 lbs.
XEG312	5/16"	0.43"	0.71"	1.46"	2.13"	3.60"	5,700 lbs.
XEG375	3/8"	0.51"	0.85"	1.91"	2.83"	4.93"	8,800 lbs.
XEG500	1/2"	0.58"	1.10"	2.32"	3.78"	6.42"	15,000 lbs.
XEG625	5/8"	0.71"	1.42"	2.91"	4.43"	7.20"	22,600 lbs.
XEG750	3/4"	0.90"	1.72"	3.52"	5.28"	8.78"	35,300 lbs.

X100 GRADE 100 EYE GRAB ADJUSTER HOOK



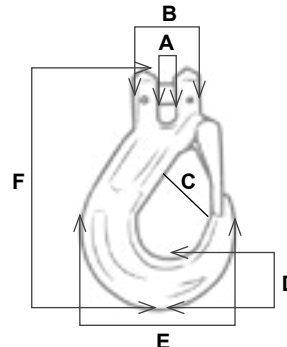
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- All load pins are 100% individually inspected
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



STOCK NUMBER	SIZE	DIMENSIONS						WORKING LOAD LIMIT
		A	B	C	D	E	F	
XEG281-312ADJ	9/32" - 5/16"	0.94"	0.36"	1.42"	0.39"	4.57"	5.71"	5,700 lbs.
XEG375ADJ	3/8"	1.18"	0.49"	1.89"	0.49"	5.71"	7.30"	8,800 lbs.
XEG500ADJ	1/2"	1.42"	0.63"	2.34"	0.61"	7.01"	8.78"	15,000 lbs.
XEG625ADJ	5/8"	1.77"	0.75"	2.76"	0.75"	8.50"	10.75"	22,600 lbs.
XEG750ADJ	3/4"	2.20"	1.01"	3.56"	1.38"	11.24"	13.82"	35,300 lbs.

X100 GRADE 100 CLEVIS SLING HOOK WITH LATCH

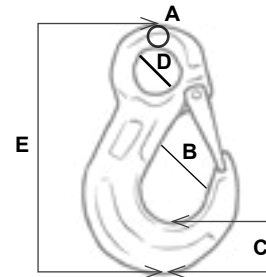
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- All load pins are 100% individually inspected
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Double retaining pin designed for reduced pin wear
- Forged, heavy duty latch and spring (preassembled)



STOCK NUMBER	SIZE	DIMENSIONS						WORKING LOAD LIMIT
		A	B	C	D	E	F	
XCS281	9/32"	0.31"	1.30"	0.93"	0.87"	2.79"	4.52"	4,300 lbs.
XCS312	5/16"	0.34"	1.30"	1.14"	0.90"	3.13"	5.36"	5,700 lbs.
XCS375	3/8"	0.65"	1.78"	1.31"	1.25"	3.83"	6.83"	8,800 lbs.
XCS500	1/2"	0.59"	2.06"	1.74"	1.48"	4.83"	7.99"	15,000 lbs.
XCS625	5/8"	0.72"	2.77"	1.75"	2.08"	6.12"	9.63"	22,600 lbs.
XCS750	3/4"	0.98"	3.34"	1.98"	2.36"	7.40"	11.45"	35,300 lbs.

X100 GRADE 100 EYE SLING HOOK WITH LATCH

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Forged, heavy duty latch and spring (preassembled)



STOCK NUMBER	SIZE	DIMENSIONS					WORKING LOAD LIMIT
		A	B	C	D	E	
XES281	9/32"	0.39"	0.93"	0.87"	0.83"	4.64"	4,300 lbs.
XES312	5/16"	0.43"	0.98"	1.08"	0.98"	5.41"	5,700 lbs.
XES375	3/8"	0.58"	1.16"	1.08"	1.22"	6.70"	8,800 lbs.
XES500	1/2"	0.78"	1.65"	1.47"	1.50"	8.10"	15,000 lbs.
XES625	5/8"	0.96"	1.78"	2.03"	2.00"	10.25"	22,600 lbs.
XES750	3/4"	1.08"	1.97"	2.30"	2.13"	11.60"	35,300 lbs.

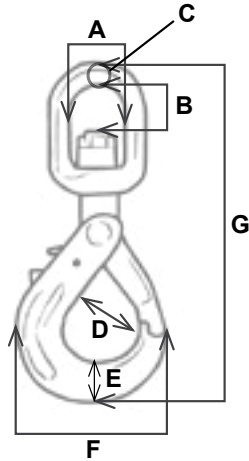
X100 GRADE 100 FORGED REPLACEMENT LATCH KIT

- Forged latch kit includes latch, spring, and pin
- Kit fits both clevis and eye types

STOCK NUMBER	SIZE	FINISH	MATERIAL
XLK281	9/32"	Powder Coated	Forged
XLK312	5/16"	Powder Coated	Forged
XLK375	3/8"	Powder Coated	Forged
XLK500	1/2"	Powder Coated	Forged
XLK625	5/8"	Powder Coated	Cast
XLK750	3/4"	Powder Coated	Cast



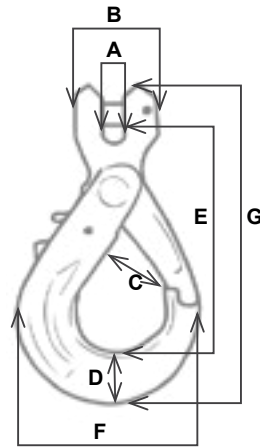
X100 GRADE 100 SWIVEL SELF-LOCKING HOOK



- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- With bronze bushing

STOCK NUMBER	SIZE	DIMENSIONS							WORKING LOAD LIMIT
		A	B	C	D	E	F	G	
XSSL281-312	9/32" - 5/16"	1.42"	1.04"	0.51"	1.50"	0.94"	3.70"	8.80"	5,700 lbs.
XSSL375	3/8"	1.65"	1.38"	0.63"	1.88"	1.23"	4.50"	10.45"	8,800 lbs.
XSSL500	1/2"	1.91"	1.89"	0.73"	2.11"	1.59"	5.52"	12.99"	15,000 lbs.
XSSL625	5/8"	2.40"	2.20"	0.85"	2.44"	1.99"	6.71"	16.26"	22,600 lbs.

X100 GRADE 100 CLEVIS SELF-LOCKING HOOK



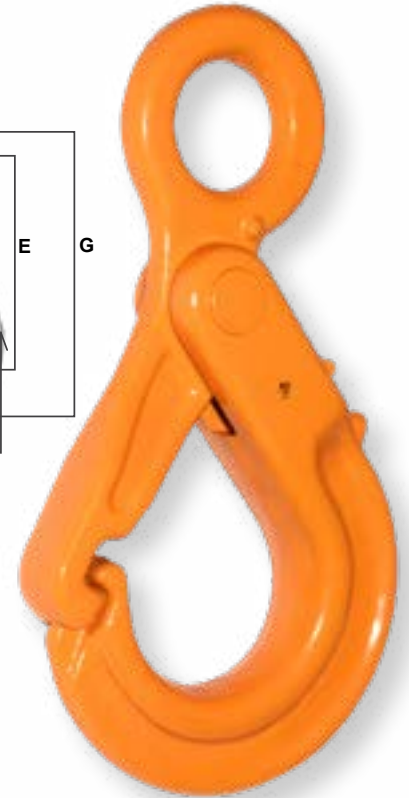
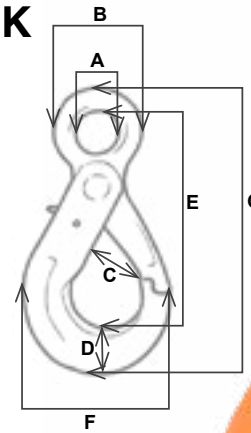
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- All load pins are 100% individually inspected and tested
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



STOCK NUMBER	SIZE	DIMENSIONS							WORKING LOAD LIMIT
		A	B	C	D	E	F	G	
XCSSL281	9/32"	0.31"	1.30"	1.18"	0.83"	3.93"	2.95"	5.43"	4,300 lbs.
XCSSL312	5/16"	0.37"	1.53"	1.54"	0.92"	4.67"	3.68"	6.30"	5,700 lbs.
XCSSL375	3/8"	0.47"	1.92"	1.93"	1.23"	5.80"	4.43"	7.95"	8,800 lbs.
XCSSL500	1/2"	0.59"	2.41"	2.03"	1.59"	6.85"	5.45"	9.61"	15,000 lbs.
XCSSL625	5/8"	0.73"	2.91"	2.71"	1.85"	7.95"	6.80"	11.22"	22,600 lbs.
XCSSL750	3/4"	0.98"	3.35"	3.01"	2.44"	9.25"	7.58"	13.29"	35,300 lbs.

X100 GRADE 100 EYE SELF-LOCKING HOOK

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



STOCK NUMBER	SIZE	DIMENSIONS							WORKING LOAD LIMIT
		A	B	C	D	E	F	G	
XESL281	9/32"	0.87"	1.73"	1.18"	0.83"	4.52"	2.95"	5.87"	4,300 lbs.
XESL312	5/16"	1.06"	2.01"	1.51"	0.91"	5.26"	3.70"	6.70"	5,700 lbs.
XESL375	3/8"	1.36"	2.53"	1.90"	1.18"	6.45"	4.42"	8.37"	8,800 lbs.
XESL500	1/2"	1.57"	3.15"	2.04"	1.59"	8.00"	5.33"	10.30"	15,000 lbs.
XESL625	5/8"	1.97"	4.09"	2.71"	1.84"	9.70"	6.50"	12.60"	22,600 lbs.

X100 GRADE 100 SELF-LOCKING HOOK REPLACEMENT TRIGGER KIT

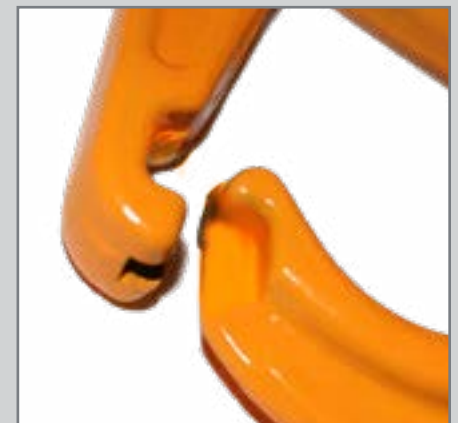
- Forged trigger kit includes trigger, spring, and pin
- Kit fits clevis, eye, and swivel types

STOCK NUMBER	SIZE	FINISH
XTK281	9/32"	Powder Coated
XTK312	5/16"	Powder Coated
XTK375	3/8"	Powder Coated
XTK500	1/2"	Powder Coated
XTK625	5/8"	Powder Coated
XTK750	3/4"	Powder Coated

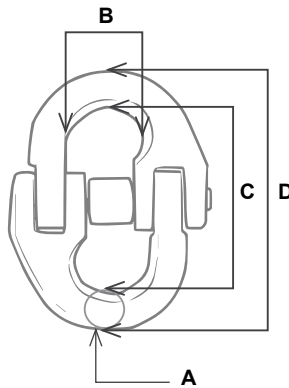


The X100 Quality Latch System

- Notched tip to help avoid hook damage
- Forged directly into the hook
- Incorporated into all X100 self-locking hooks



X100 GRADE 100 COUPLING LINK



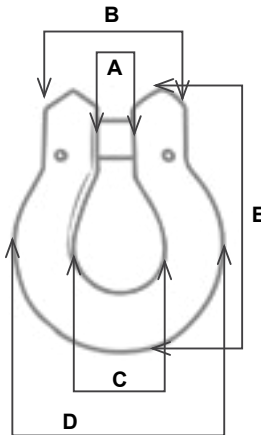
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection



STOCK NUMBER	SIZE	DIMENSIONS				WORKING LOAD LIMIT
		A	B	C	D	
XCL281	9/32"	0.30"	0.55"	1.75"	2.36"	4,300 lbs.
XCL312	5/16"	0.40"	0.84"	2.42"	3.25"	5,700 lbs.
XCL375	3/8"	0.50"	1.02"	2.70"	3.71"	8,800 lbs.
XCL500	1/2"	0.64"	1.23"	3.50"	4.83"	15,000 lbs.
XCL625	5/8"	0.78"	1.44"	4.06"	5.71"	22,600 lbs.
XCL750	3/4"	0.97"	1.79"	4.74"	6.89"	35,300 lbs.

Note: Replacement barrel and pin sets available.

X100 GRADE 100 OMEGA LINK



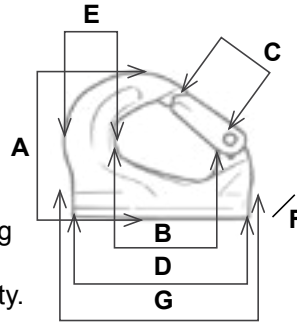
- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated HI-VIZ safety orange
- All load pins are 100% individually inspected and tested
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Double retaining pin designed for reduced pin wear



STOCK NUMBER	SIZE	DIMENSIONS					WORKING LOAD LIMIT
		A	B	C	D	E	
XOL281-312	9/32" - 5/16"	0.41"	1.65"	0.94"	2.36"	2.89"	5,700 lbs.
XOL375	3/8"	0.49"	1.91"	1.22"	2.76"	3.54"	8,800 lbs.
XOL500	1/2"	0.63"	2.36"	1.52"	3.54"	4.29"	15,000 lbs.
XOL625	5/8"	0.75"	2.97"	2.01"	4.41"	5.57"	22,600 lbs.

X100 WELD-ON BUCKET HOOK

- Forged alloy steel
- Quenched & tempered
- Powder coated
- Forged latch
- 100% mag-particle crack detection
- Maximum Working Load Limit is achieved when welding is performed by a qualified welder using a qualified procedure in accordance with American Welding Society.



STOCK NUMBER	SIZE	DIMENSIONS							WORKING LOAD LIMIT
		A	B	C	D	E	F	G	
XBH2T	2 Tons	3.62"	2.46"	1.00"	3.19"	0.92"	1.35"	4.40"	4,000 lbs.
XBH3T	3 Tons	4.17"	2.89"	1.13"	4.45"	1.25"	1.42"	5.08"	6,000 lbs.
XBH5T	5 Tons	5.24"	3.70"	1.48"	6.17"	1.73"	1.72"	6.87"	10,000 lbs.
XBH8T	8 Tons	5.37"	3.70"	1.41"	6.31"	2.01"	2.00"	6.97"	16,000 lbs.
XBH10T	10 Tons	6.67"	5.40"	1.90"	7.90"	2.15"	2.07"	8.47"	20,000 lbs.

X100 BUCKET HOOK REPLACEMENT LATCH KIT

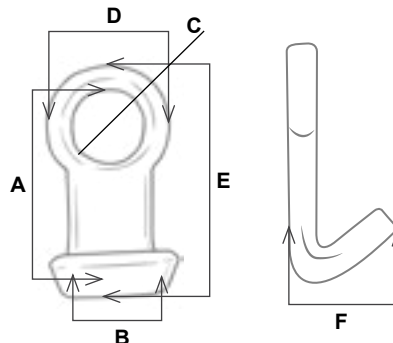
- Forged latch kit includes latch, spring, and pin

STOCK NUMBER	SIZE	FINISH
XLKBH2T	2 Tons	Powder Coated Yellow Gloss
XLKBH3T	3 Tons	Powder Coated Yellow Gloss
XLKBH5T	5 Tons	Powder Coated Yellow Gloss
XLKBH8T	8 Tons	Powder Coated Yellow Gloss
XLKBH10T	10 Tons	Powder Coated Yellow Gloss



X100 BARREL HOOK

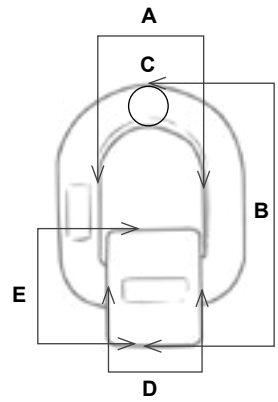
- Forged carbon steel
- Quenched & tempered
- Powder coated
- Only rated at 1 ton when used with two; sold by the pair



STOCK NUMBER	SIZE	A	B	C	D	E	F	WORKING LOAD LIMIT
XBRLHK1T	1 Ton	3.59"	2.20"	1.50"	2.78"	4.67"	2.32"	2,000 lbs.

X100 WELD-ON LIFTING POINT

APPROVED FOR OVERHEAD LIFTING



- Use weld-on pivoting link only with ferrous metal (steel)
- Loads may disengage from link if proper welding, assembly, and lifting procedures are not used
- Spring loaded pivoting link for easy rigging
- Always inspect weld-on lifting point for damage in the weld or the pivoting link. Evidence of wear, cracks, elongation, etc., is grounds for removal from service
- Each lifting point packed with instructions, warnings, and cautions
- Ultimate load is 4 times the working load limit
- Do not side load
- **Suitable for overhead lifting if welded by a certified welder***
- * Welding is to be performed by a qualified welder using a qualified procedure in accordance with American Welding Society.

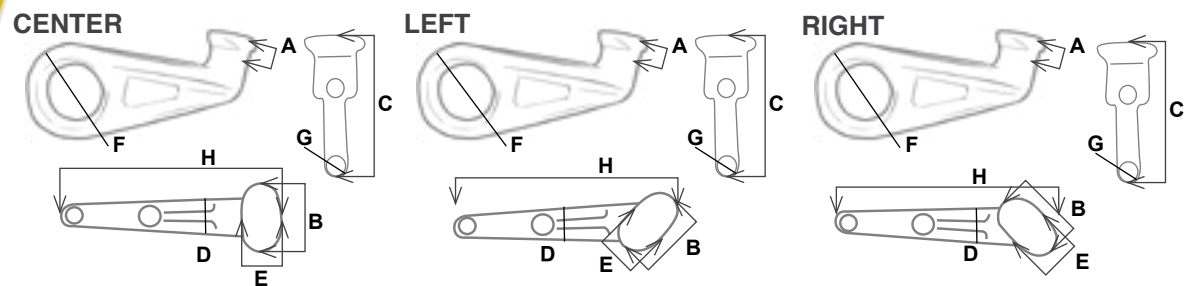
STOCK NUMBER	SIZE	DIMENSIONS					WORKING LOAD LIMIT
		A	B	C	D	E	
XWLP1T	1 Ton	1.61"	3.09"	0.51"	1.46"	1.38"	2,000 lbs.
XWLP2T	2 Tons	1.65"	3.46"	0.55"	1.57"	1.46"	4,000 lbs.
XWLP3T	3 Tons	1.77"	3.70"	0.67"	1.67"	1.57"	6,000 lbs.
XWLP5T	5 Tons	2.40"	4.65"	0.87"	2.17"	2.05"	10,000 lbs.
XWLP8T	8 Tons	2.78"	5.55"	1.04"	2.75"	2.24"	16,000 lbs.
XWLP15T	15 Tons	3.82"	7.40"	1.34"	3.54"	3.03"	30,000 lbs.

X100 CONTAINER HOOK



- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection

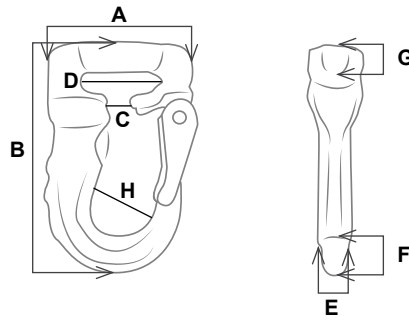
STOCK NUMBER	DEGREE	DIRECTION	WORKING LOAD LIMIT
G80CHL	45°	Left	28,000 lbs.
G80CHR	45°	Right	28,000 lbs.
G80CHC	-	Straight	28,000 lbs.



LEFT A	LEFT B	LEFT C	LEFT D	LEFT E	LEFT F	LEFT G	LEFT H
1.81"	2.95"	6.54"	0.98"	1.89"	2.76"	0.98"	10.43"
RIGHT A	RIGHT B	RIGHT C	RIGHT D	RIGHT E	RIGHT F	RIGHT G	RIGHT H
1.81"	2.95"	6.54"	0.98"	1.89"	2.76"	0.98"	10.43"
STRAIGHT A	STRAIGHT B	STRAIGHT C	STRAIGHT D	STRAIGHT E	STRAIGHT F	STRAIGHT G	STRAIGHT H
1.81"	2.95"	6.54"	0.98"	1.89"	2.76"	0.98"	10.43"

X100 SYNTHETIC ROUND SLING HOOK

- Approved for overhead lifting
- Forged alloy steel
- Quenched & tempered
- Powder coated
- Forged latch
- 100% mag-particle crack detection
- Color coded to match Endless Round Sling



STOCK NUMBER	COLOR	DIMENSIONS								WORKING LOAD LIMIT
		A	B	C	D	E	F	G	H	
XE1HK	Purple	3.07"	4.84"	0.47"	1.61"	0.67"	0.79"	0.63"	1.22"	2,600 lbs.
XE2HK	Green	3.58"	5.83"	0.75"	1.77"	0.83"	1.02"	0.67"	1.57"	5,300 lbs.
XE3HK	Yellow	4.45"	6.89"	0.83"	2.17"	0.98"	1.26"	0.98"	1.97"	8,400 lbs.
XE5HK	Red	5.21"	8.78"	1.57"	2.76"	1.42"	2.34"	1.42"	2.34"	13,200 lbs.



X100 SYNTHETIC ROUND SLING HOOK REPLACEMENT LATCH KITS

STOCK NUMBER	FITS HOOK COLOR	LATCH FINISH
XLKE1	Purple	Zinc Plated
XLKE2	Green	Zinc Plated
XLKE3	Yellow	Zinc Plated
XLKE5	Red	Zinc Plated



X100 SORTING HOOK WITH HANDLE

STOCK NUMBER	EYE DIAMETER	OPENING AT TOP OF HOOK	RADIUS AT BOTTOM OF HOOK	WORKING LOAD LIMIT AT TIP	WORKING LOAD LIMIT AT BOWL
XSORTINGWH	1.35"	2.75"	0.625"	2 Ton	7.5 Ton

X100 ALL ALLOY SHACKLE

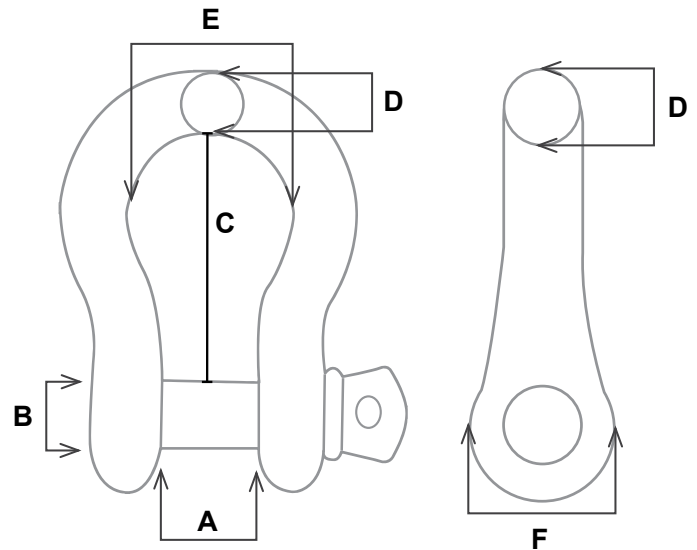
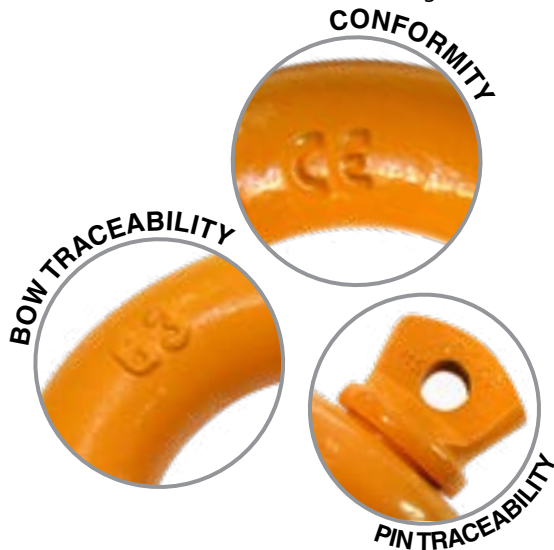
APPROVED FOR OVERHEAD LIFTING



- Approved for overhead lifting
- 100% Forged Alloy Steel
- Quenched and Tempered
- Powder Coated HI-VIZ Safety Orange
- 100% proof tested at 2 times the working load limit
- 100% mag-particle crack detection
- Markings: X100 Brand Size, Working Load Limit, Conformity, Traceability

STOCK NUMBER	SIZE	WORKING LOAD LIMIT	DIMENSIONS						WEIGHT/PIECE (LBS.)
			A	B	C	D	E	F	
XSPAA500	1/2"	3 1/3	0.81	0.62	1.88	0.50	1.31	1.22	0.72
XSPAA625	5/8"	5	1.06	0.75	2.36	0.63	1.69	1.57	1.37
XSPAA750	3/4"	7	1.26	0.87	2.81	0.75	2.01	1.89	2.35
XSPAA875	7/8"	9 1/2	1.46	0.98	3.33	0.87	2.28	2.13	3.62
XSPAA100	1"	12 1/2	1.71	1.10	3.79	1.04	2.70	2.36	5.03
XSPAA1125	1-1/8"	15	1.89	1.26	4.29	1.14	2.95	2.68	7.41
XSPAA1250	1-1/4"	18	2.09	1.38	4.74	1.26	3.31	2.99	9.5
XSPAA1375	1-3/8"	21	2.32	1.50	5.28	1.38	3.70	3.31	13.53
XSPAA1500	1-1/2"	30	2.44	1.65	5.85	1.50	3.90	3.62	17.2

Ultimate load is 5 times the Working Load Limit.



X100 CHAIN & HARDWARE MARKING

X100 Trademark Brand



X100 Trademark Brand every 12"

Metric Size - Chain Grade



3/8
Fractional Size



Chain Selection Aid for Sub Assemblies



Conformity



Manufacturer Trace Code



**X100[®] CHAIN &
CHAIN SLINGS**

-AND-

**X100[®] OFF-THE-
SHELF SLINGS**

APPROVED FOR OVERHEAD LIFTING

X100 CHAIN & CHAIN SLINGS

APPROVED FOR OVERHEAD LIFTING

X100 GRADE 100 CHAIN



- Every link has been proof tested to 2 times the working load
- All X100 Grade 100 chain is made from 8620 alloy steel and meets or exceeds all existing OSHA, Government, and NACM specification requirements
- X100 Chain is suitable for cargo control and overhead lifting
- X100 Grade 100 Chain Slings Assemblies are compliant with ASME B30.9

SHOT BLAST FINISH

STOCK NUMBER	SIZE	MATERIAL DIAMETER	INSIDE WIDTH	INSIDE LENGTH	FEET/DRUM	WEIGHT/FOOT	WORKING LOAD LIMIT
X100281	9/32"	0.283"	.420"	0.85"	800'	.74 lbs.	4,300 lbs.
X100312	5/16"	0.315"	.500"	1.04"	550'	.94 lbs.	5,700 lbs.
X100375	3/8"	0.394"	.575"	1.26"	400'	1.48 lbs.	8,800 lbs.
X100500	1/2"	0.512"	.768"	1.64"	200'	2.55 lbs.	15,000 lbs.
X100625	5/8"	0.630"	.930"	2.00"	150'	3.83 lbs.	22,600 lbs.
X100750	3/4"	0.787"	1.15"	2.50"	100'	5.78 lbs.	35,300 lbs.

X100 GRADE 100 CHAIN ASSEMBLIES

CHAIN SIZE	SINGLE-LEG AT 90° ANGLE	DOUBLE-LEG AT 60° ANGLE	DOUBLE-LEG AT 45° ANGLE	DOUBLE-LEG AT 30° ANGLE	TRIPLE/ QUADRUPLE AT 60° ANGLE	TRIPLE/ QUADRUPLE AT 45° ANGLE	TRIPLE/ QUADRUPLE AT 30° ANGLE	CHAIN SIZE
9/32"	4,300	7,400	6,100	4,300	11,200	9,100	6,400	9/32"
5/16"	5,700	9,900	8,100	5,700	14,800	12,100	8,500	5/16"
3/8"	8,800	15,200	12,400	8,800	22,900	18,700	13,200	3/8"
1/2"	15,000	26,000	21,200	15,000	39,000	31,800	22,500	1/2"
5/8"	22,600	39,100	32,000	22,600	58,700	47,900	33,900	5/8"
3/4"	35,300	61,100	49,900	35,300	91,700	74,900	53,000	3/4"

Capacities above are rated in pounds (lbs.).

1ST LETTER INDICATES:

- S = Single-Leg
- D = Double-Leg
- T = Triple-Leg
- Q = Quadruple-Leg

2ND LETTER INDICATES:

- O = Oblong Link
- S = Sling Hook
- G = Grab Hook
- F = Foundry Hook

3RD LETTER INDICATES:

- O = Oblong Link
- S = Sling Hook
- G = Grab Hook
- F = Foundry Hook

X100 CHAIN SLING CONFIGURATIONS

SGG



SSS



SGS



SOS



SOSA



SOO



SOG



DOS



DOG



DOSA



TOS



TOG



QOS



QOG



QOSA



CHAIN SLING ADJUSTER OPTIONS

X100 OFF-THE-SHELF GRADE 100 CHAIN SLINGS

GREAT FOR HARDWARE STORES, RENTAL SHOPS, AND MORE
OFF THE SHELF - FULLY ASSEMBLED - OSHA COMPLIANT



What's in the Box/Bucket

- OSHA Compliant Chain Sling
- Certificate of Conformance
- OSHA recommended "Criteria for Removal from Service"
- Warnings & Cautions

Standard Stock Configurations & Sizes

- | | |
|-----------------|--------------|
| TYPE: | SGG |
| SIZES: | 9/32" & 3/8" |
| LENGTHS: | 10FT & 20FT |
| TYPE: | DOSA |
| SIZES: | 9/32" & 3/8" |
| LENGTHS: | 10FT & 20FT |



X100[®] TESTING

X100 HARDWARE TESTS

- 100% proof tested at 2 times the working load limit
- Mag-particle crack detection
- Salt spray
- 20,000 fatigue cycle at 1.5 times the working load limit
- Minimum break/tensile strength
- Cold temperature impact
- Individual pin inspection
- Hardness
- Spectographic analysis
- Break testing performed by random sample with a gradually increasing load in a straight line pull. These tests are performed in a laboratory setting and these conditions are seldom duplicated while being used in the field. The minimum breaking strength requirement for all X100 hardware is 4 times the working load (**DO NOT EXCEED WORKING LOAD LIMIT**)

X100 CHAIN TESTS

- Every link is proof loaded to 2 times the working load limit
- Break testing is performed by random sample
- All full drum bulk chains have a tested and broken piece of chain and a break test certificate inside the drum at top for quality assurance
- Minimum break strength is 4 times the working load limit (**DO NOT EXCEED WORKING LOAD LIMIT**)
- Chemical analysis of raw material
- Fatigue Tested to EN1677 standard 20,000 cycles at 1.5x Working Load Limit
- Bending Deflection Test

WEAR AND ABUSE EXAMPLES



HEAT



STRETCHED CHAIN LINKS



WELD SPLATTER



BENT LINKS



GOUGED LINKS



WORN LINKS

GRADE 100 HEAT CONDITIONS

Effect of Elevated Temperature on the Working Load Limit of Grade 100 Alloy Chain:

Chain should not be used outside of the -40°F to 400°F (-40°C to 204°C) temperature range without consulting the chain manufacturer. The specific working load limit reductions for Grade 100 chains used at and after exposure to elevated temperatures have been established and are show below.

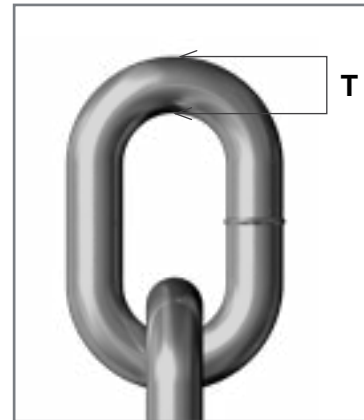
Maximum Chain Temperature	Reduction of Working Load Limit while at Temperature	Reduction of Working Load Limit After Exposure to Temperature
Below 400°	None	None
400°	15%	None
500°	25%	5%
600°	30%	15%
700°	40%	20%
800°	50%	25%
900°	60%	30%
1,000°	70%	35%
Over 1,000°	*	*

*OSHA 1910.184 requires all slings exposed to temperatures over 1,000° F to be removed from service.

LINK WEAR TABLE

If chain is worn to less than the minimum allowable thickness (T shown below), remove the chain from service.

Chain Size	New Chain Material Diameter	Minimum Allowable Thickness
9/32"	0.279"	0.239"
3/8"	0.404"	0.342"
1/2"	0.529"	0.443"
5/8"	0.625"	0.546"
3/4"	0.821"	0.687"



T=Diameter/Thickness

GENERAL HOOK GUIDELINES

Important Safety Guidelines

- Always inspect hook & latch before using
- Never use a latch that is distorted or bent.
- Always make sure spring will force the latch against the tip of the hook. Do not tip load hooks. Always use the “bowl” of the hook to bear the load. The latch must never support the load.
- Latches are intended to retain loose sling or devices under slack conditions.
- Latches are not intended to be an antifouling device.

CRITERIA FOR REMOVAL FROM ASME B30.9

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 Link Wear Table above
- stretched chain links or components
- 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 (articulate) freely
- weld splatter
- for hooks, removal criteria as stated in ASME B30.10
- for rigging hardware, removal criteria as stated in ASME B30.26
- other conditions, including visible damage, that cause doubt as to the continued use of the sling

X100[®] INDEX

X100 HARDWARE

Barrel Hook	15
Bucket Hook Replacement Latch Kit.....	15
Clevis Grab Hook with Cradle	10
Clevis Self-Locking Hook	12
Clevis Sling Hook with Latch	11
Container Hook	16
Coupling Link	14
Eye Grab Adjuster Hook.....	10
Eye Grab Hook with Cradle.....	10
Eye Self-Locking Hook.....	13
Eye Sling Hook with Latch	11
Forged Replacement Latch Kit.....	11
Master Link with Adjusters.....	9
Master Link.....	7
Master Link Sub Assembly	7
Master Link with Oversized Sub Assemblies.....	8
Omega Link.....	14
Self-Locking Hook Replacement Trigger Kit.....	13
Swivel Self-Locking Hook.....	12
Synthetic Round Sling Hook.....	17
Synthetic Round Sling Hook Replacement Latch Kit	17
Weld-On Bucket Hook.....	15
Weld-On Lifting Point.....	16

X100 GRADE CHAIN

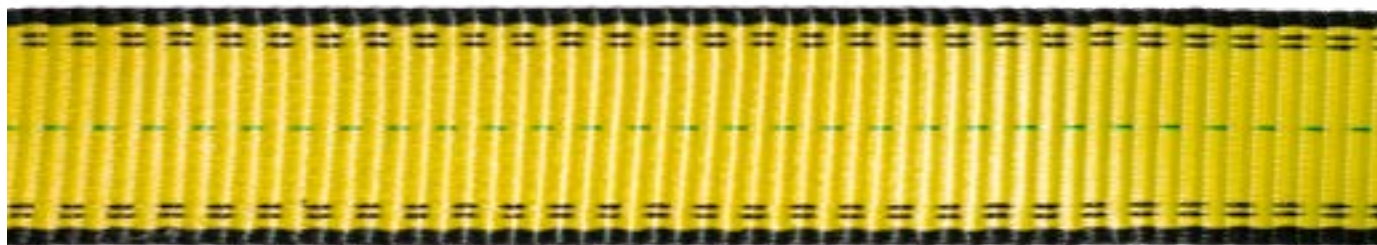
Chain.....	20
Chain Slings.....	6, 20-21
Off-The-Shelf Chain Slings	23

MORE ADVANTAGE BRANDS

GOLD TIP[®] PREMIUM CARGO CONTROL

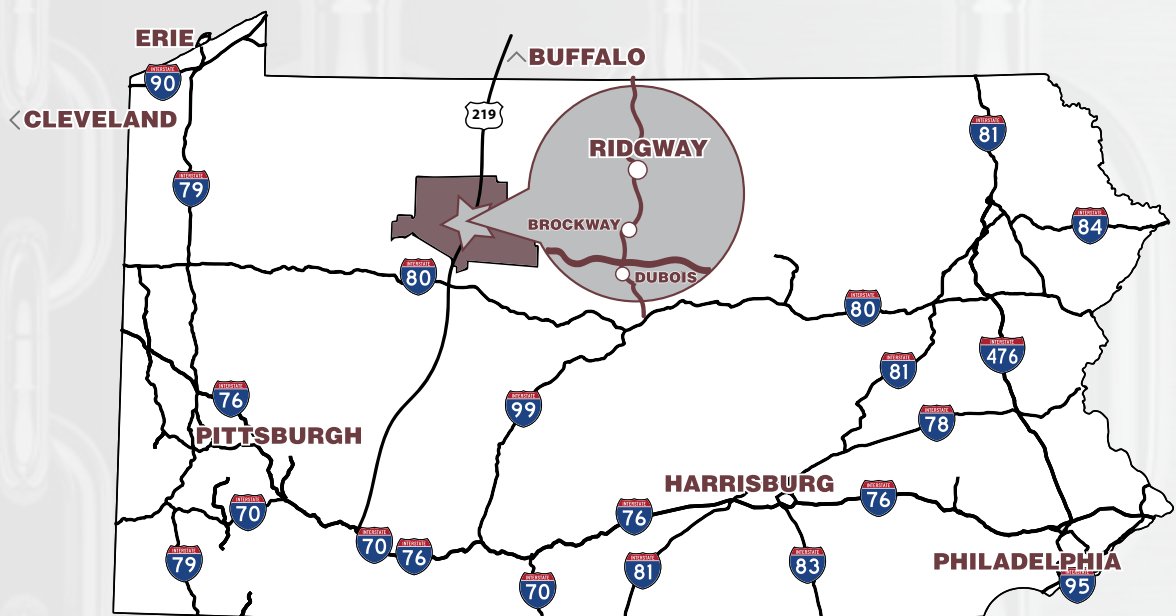


ADVANT-EDGE[®] EDGE PROTECTED SYNTHETIC SLINGS



X100[®]

BY  **ADVANTAGE**



ADVANTAGE SALES & SUPPLY, INC.

99 Servidea Drive

Ridgway, PA 15853

PHONE: (814) 772-4766

FAX: (814) 772-4767

TOLL FREE: 800-216-2183

X100 Grade 100 Chain & Hardware

2020
\$5.00