



satisfaction.

Our company is structured to our customer's needs by offering

quick response, professional

and expert service.

Our products are manufactured to the highest quality standard. Each product has been developed through on-going engineering and quality programs.

With our customer, working as partners we are able to design products for specific industries.

We operate in a manner that is ethical, with mutual respect and trust.

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Terms & Conditions

Terms of Sale

Terms are Net 30 days upon approval of your credit application. When credit has not been established, all shipments will be made on a COD or CBD basis. We also accept most major credit cards. Wire transfers are accepted for international orders.

Ordering

Orders received by 12:00 noon for in-stock items will be shipped the same day. (Does not apply to cut orders). Orders received after 12:00 noon will be shipped the following business day. When ordering please use product number, quantity, style and description. If material is not in stock, a back order will be generated. If it is necessary to



back order any portion, we are not responsible for additional freight costs. All merchandise is subject to prior sale and all orders are subject to acceptance at our Chino, California office.

Minimum Orders

Minimum order is \$100.00.

Pricing

Due to fluctuating prices, we are unable to provide price sheets with this catalogue. Please call or write for price quotes. All prices are subject to change without notice.

Routing

All shipments are routed UPS. If over 200 pounds our shipping department will use their best judgment if no particular routing is specified. Please notify us of your freight line of choice. All goods are sold FOB shipping point.

Shortages • Damages • Claims

Title to product passes from John Howard Company, Inc. to the Customer as soon as the shipment leaves our facility. All claims to John Howard Company, Inc. concerning goods must be made within 5 days after receipt of merchandise. No claims are allowed after goods are cut. Responsibility for loss or damages incurred in transit to be determined based on the shipping terms arranged.

Product Returns and Warning Information

John Howard Company, Inc. carries and sells only the highest quality products. Please contact us immediately before returning any items so we may arrange to receive your merchandise. No credit will be given without written authorization. Returned goods must be in original condition and no returns are allowed after 15 business days. A 20% restocking charge may apply.

Disclaimer

Having no control over the use of any of the products listed or not listed in our catalog, John Howard Company, Inc. assumes no liability connected with their use. Under no circumstances are we liable for any loss, damage or expenses of any kind arising out of the use or inability to use our products.

It is the responsibility of the user to determine the proper suitability and safety of a product for any particular use. John Howard Company, Inc. suggests checking all applicable industry, trade association, federal, state, and local regulations.

JOHN HOWARD COMPANY, INC. STATES: CONVERTERS MUST CONDUCT THEIR OWN END-ITEM PERFORMANCE TESTS.

Breaking strength and working load capacities in our catalog and website are based on the product being new and being used under normal environmental conditions. All products are subject to age, wear and deterioration, which can cause breaking strengths to decrease. If you have any further questions, please feel free to contact us.

NYLON TUBULAR WEBBING



MIL-W-5625**

Width 1/2"

Color Black, Natural, Red, Royal

Put-Up 200 yds./spool Approx. Break 1,000 lbs.

Other colors & widths available per specifications, minimums may apply.



4597

Width 11/16" Color Black

Put-Up 50 yds./spool Approx. Break 3,000 lbs.





^{**}Mil-W-5625 available in all widths per specifications. Pricing available upon request.

NYLON TUBULAR WEBBING



31472

Width 1"

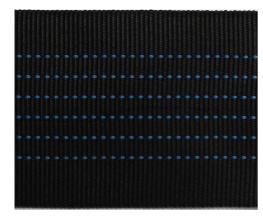
Color Black, Red, Orange, Lime,

New Yellow, Emerald Green, Olive Drab,

Royal Blue, Navy Blue,

Purple, Marpate 100 yds./spool

Put-Up 100 yds./s Approx. Break 4,000 lbs.



30456

Width

Color Black, Red, Royal Put-Up 50 yds./roll Min. Break 7,000 lbs.



^{*}Colors custom dyed upon request.

Black #905



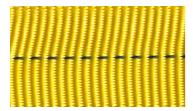
Red #300



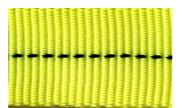
Orange #202



New Yellow #100



Lime #101



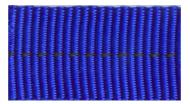
Navy Blue #509



Purple #405



Royal Blue #502



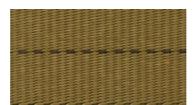
Olive Drab #7



Emerald Green #8



31472 1" CB498 Marpate



Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.

NYLON WEBBING



0629

Width 1"
Color Black
Put-Up 100 yds./roll
Approx. Break 1,200 lbs



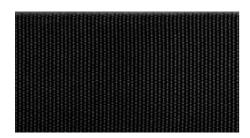
0616

Width 3/4"
Color Black
Put-Up 100 yds./roll



0606

Width 1"
Color Black
Put-Up 100 yds./roll



258

 Width
 1-1/2", 2", 3"

 Color
 Black

 Put-Up
 100 yds./roll



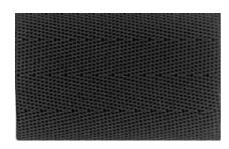




0955 Cam Webbing

Width 2"
Color Black
Put-Up 50 yds./roll
Approx. Break 4,000 lbs.

Available in Resin Treated



1243ZN 4 Panel

Width 1-1/2"
Color Black
Put-Up 100 yds./roll
Approx. Break 1,200 lbs.



0855 4 Panel

Width
Color
Put-Up
100 yds./roll
Approx. Break
4,000 lbs.

NYLON WEBBING



0555Width
Color
Put-Up

Approx. Break

Black 100 yds./roll 1/2"-440 lbs. 5/8"-800 lbs. 3/4"-1,000 lbs.

1/2", 5/8" 3/4"



0755

Width 3/4", 1", 1-1/4"

Color Wide variety of colors in stock

Put-Up 50 yds./roll Approx. Break 1"-3,700 lbs. 3/4"-2,400 lbs. 1-1/4" - 4,000 lbs.



N-251

Width 1-1/2", 2"
Color Black
Put-Up 50 yds./roll
Approx. Break 1-1/2"-6,000 lbs.



0755 NYLON WEBBING COLOR CHART



Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.

Custom colors can be dyed upon request.

POLYPROPYLENE/POLYESTER WEBBING



1133L Lightweight Polypropylene Webbing

Width 3/4", 1", 1-1/2", 2", 3"

Color Black Put-Up 100 yds./roll



1133H Heavyweight Polypropylene Webbing

Width 3/4", 1", 1-1/2", 2", 3"

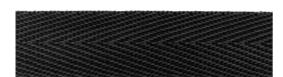
Color Black Put-Up 100 yds./roll



1133MF Multi-filament Polypropylene Webbing

Width 3/4", 1", 1-1/2", 2"

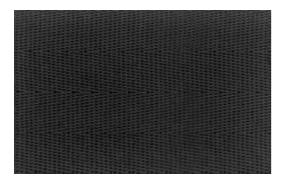
Color Black Put-Up 100 yds./roll



1601 Polypropylene Herringbone Weave Webbing

5/8", 3/4", 1", 1-1/2", 2" Width

Color Black Put Up 100 yds./roll



2101NP Polyester 4 Panel Webbing

Width 1-15/16" Color Black Put-Up 100 yds./roll Approx. Break 5,000 lbs.



32050 Polyester 5 Panel Webbing

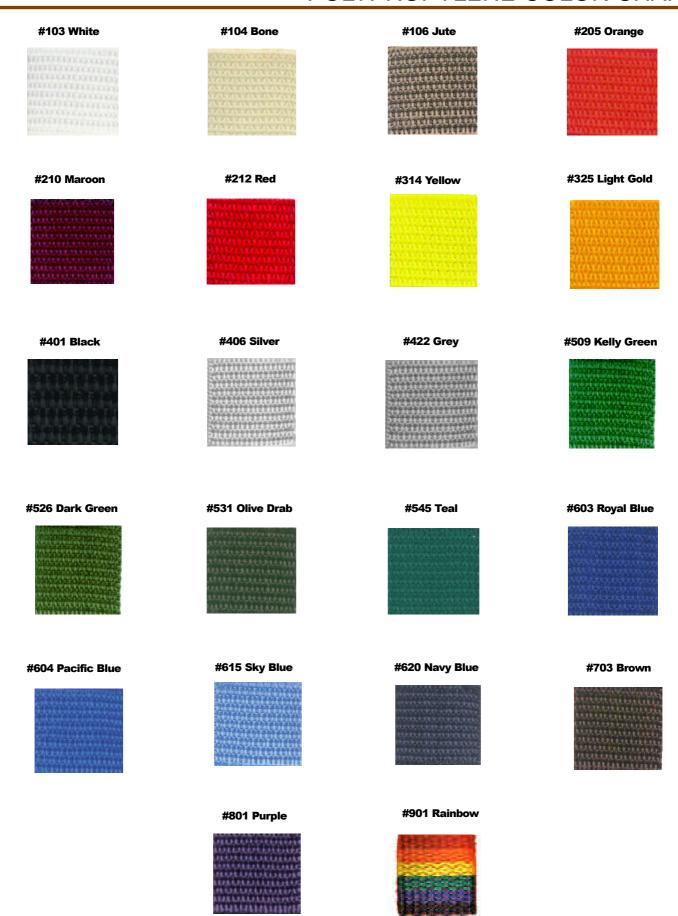
Width 1-15/16" Color

Put-Up

Approx. Break



POLYPROPYLENE COLOR CHART



Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.



0206 Nylon Grosgrain Tape

Width 3/4", 1" Black Only

Color Black #030, White #029, Pewter #022,

Red #250, Royal Blue #350, Brown #850

Put-Up 100 yds./roll



0296 Polyester Grosgrain Tape

Width 3/4", 1"
Color Black
Put-Up 100 yds./roll



305T Polyester Twill Weave Tape

Width 3/4", 1"
Color Black
Put-Up 100 yds./roll



N239 Nylon Plain Weave Tape

Width 3/4"
Color Black
Put-Up 100 yds./roll



30110 Nylon Grosgrain Tape

Width 3/8", 1/2", 3/4", 1", 1-1/2"

Color Black
Put-Up 100 yds./roll

* Custom colors available with a minimum order. Dyed to match. Used as binding tape for items such as luggage, backpacks, and fishing gear.

White #029



Black #030



Red #250



Brown #850



Royal Blue #350



Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.

NYLON BINDING TAPE

Mil-PRF-5038		Type II		ı		Гуре III			ı		Type IV	/	
Widths, Inch (+/- 1/32)	1	1-1/2	2	3/8	1/2	3/4	1	1-1/2	1/2	5/8	1	1-1/8	1-1/2
Thickness, Inch	.025 to .035	.025 to .035	.025 to .035	.015 to .025	.015 to .025	.015 to .025	.015 to .025	.015 to .025	.030 to .040	.030 to .040	.030 to .040	.030 to .040	.030 to .040
Weight oz./yd. (max)	.40	.60	.80	.12	.15	.20	.30	.40	.35	.40	.50	.60	.75
Warp Yarns (face and back) (min.) Binder	96	144	192	74	100	150	200	300	99 8	123 10	197 16	221 18	293 24
Picks per inch (min.)	40	40	40	33	33	33	33	33	48	48	48	48	48
Breaking Strength Pounds (min.)	900	1300	1700	200	250	400	525	900	550	625	1000	1100	1500
Ultimate Elongation %(min.)	18	18	18	18	18	18	18	18	18	18	18	18	18



Type II Width Color

1", 1-1/2", 2" Black



Type III Width/Color

3/8"-Black, 1/2"-Black, Natural

3/4"-Black 1"- Black, Natural 1-1/2"- Black, Natural



Type IV Width Color

1/2", 5/8", 1", 1-1/8", 1-1/2"

Black

Custom colors available with a minimum order. Dyed to match.

ake an impact on your products. These patterns are an example of what can be manufactured. We have over 30 colors of yarn to choose from, with a maximum of 6 colors per style. Custom colors can be dyed to meet your requirements. Available in widths of 3/8" to 3".





Style 11653 (1")



Style 3957 (1-1/4")



Style 3198 (1-3/4")



Style 15842 (3/4")



MIL-W-4088 Condition U (Untreated) • MIL-W-27265 Class R (Resin Impregnated)



MIL-W-4088 Type 1A Width 3/4" Color Black Put-Up 100 yds.



MIL-W-4088 Type 2 Width 1" Color Black Put-Up 100 yds.



MIL-W-4088 Type 7 Width 1-23/32" Color Black Put-Up 100 yds.



MIL-W-4088 Type 8 Width 1- 23/32" Color Black Put-Up 100 yds.



MIL-W-4088 Type 17 Width 1" Color Black Put-Up 100 yds.

CONSTRUCTION AND PHYSICAL REQUIREMENTS FOR WEBBING

I Ia III III IV	9/16 ± 1/32 3/4 ± 1/32 1 ± 1/32 1 1/4 ± 1/32 3 ± 1/8 23/32 ± 1/16	.02504 .02504 .025035 .025040 .025040	0.28 0.32 0.42 0.52	Strength (lbs. min.) 500 600	Ends in w Face & B Back 92 108			final pli	single ya ied yard Binder -	(min.)
Ia II III IV	3/4 ± 1/32 1 ± 1/32 1 1/4 ± 1/32 3 ± 1/8 23/32 ± 1/16	.025035 .025040 .025040	0.32 0.42 0.52	600 600	108	-			-	
II III	1 ± 1/32 1 1/4 ± 1/32 3 ± 1/8 23/32 ± 1/16	.025040 .025040 .025040	0.42 0.52	600		-	34	1	-	1
III ·	1 1/4 ± 1/32 3 ± 1/8 23/32 ± 1/16	.025040	0.52		134					'
IV	3 ± 1/8 23/32 ± 1/16	.025040		6.0.0		-	34	1	-	1
	23/32 <u>+</u> 1/16		1.20	800	168	-	34	1	-	1
VI 1		000 050	1.20	1,800	400	-	34	1	-	1
		.030050	1.15	2,500	114	-	21	2	-	2
VII 1	23/32 <u>+</u> 1/16	.060100	2.35	6,000	229	27	26	1	-	2
VIII 1	23/32 <u>+</u> 1/16	.040070	1.60	4,000	166	-	18	2	-	2
VIIIa	3 <u>+</u> 3/32	.040070	2.80	6,300	280	-	18	2	-	2
VIIIb	2 <u>+</u> 1/16	.040070	1.80	4,500	192	-	18	2	-	2
VIIIc 2	2 1/4 <u>+</u> 1/16	.040070	2.10	5,300	222	-	18	2	-	2
IX	3 <u>+</u> 3/32	.065100	4.00	9,000	257	31	28	3	2	2
X 1	23/32 <u>+</u> 3/32	.105140	3.70	9,500	257	31	22	3	1	2
XII 1	23/32 <u>+</u> 1/16	.025040	0.85	1,200	266	-	34	1	-	1
XIII 1	23/32 <u>+</u> 3/32	.080120	2.90	7,000	281	34	24	2	1	2
XIV	1/2 <u>+</u> 1/32	.070100	0.80	1,200	91	-	36	7	-	7
XV	2 <u>+</u> 1/16	.035050	1.25	1,500	88	-	15	2	-	2
XVI 1	23/32 <u>+</u> 1/16	.045080	2.00	4,500	198	-	17	2	-	2
XVII	1 <u>+</u> 1/16	.045070	1.15	2,500	114	-	15	2	-	2
XVIII	1 <u>+</u> 1/16	.100160	2.05	6,000	260	-	18	2	-	2
XIX	1 3/4 <u>+</u> 3/32	.100130	4.10	10,000	280	-	18	3	-	2
XX	1 <u>+</u> 3/32	.170210	3.25	9,000	162	26	19	5	1	3
XXI	l 1/4 <u>+</u> 1/16	.065085	1.70	3,600	260	-	25	5	-	10
XXII 1	23/32 <u>+</u> 3/32	.090120	3.50	9,500	259	-	18	3	-	2
XXIII	1 1/8 <u>+</u> 3/32	.200300	3.70	12,000	324	27	15	3	2	3
XXIV 1	15/16 <u>+</u> 3/32	.055075	2.25	5,500	244	-	17	2	-	3
XXV	1 <u>+</u> 1/16	.080125	1.50	4,500	169	20	22	2	1	2
XXVI	I 3/4 <u>+</u> 1/16	.150180	4.90	15,000	236	-	16	5	-	3
XXVII 1	23/32 <u>+</u> 1/16	.085110	2.90	6,500	215	-	24	3	-	2
XXVIII 2	2 1/4 <u>+</u> 3/32	.080110	3.80	8,700	257	31	22	3	1	2

COTTON TAPES AND WEBBING



1513 Width 3/4", 1" Color Black, Natural

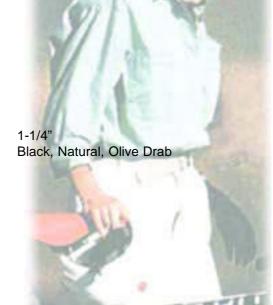


3002Width 1"Color Black, Natural



M2B
Width 1-1/4"
Color Black, Natural, Tundra Brown





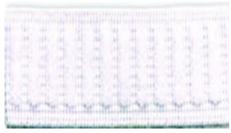
Presented is a sampling of various weave structures.

All cotton tapes and webbings are manufactured to width, color and weave requirements.

BSW1 Width

Color

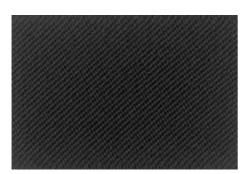
WOVEN ELASTIC





1365 Non Roll

Width 3/4", 1" Color Black, White Put-Up 36 yds./roll



W-311

Width

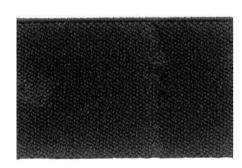
3/4", 1", 1-1/2", 2" Black Stocked-Colors Upon Request Color

Put-Up 36 yds./roll

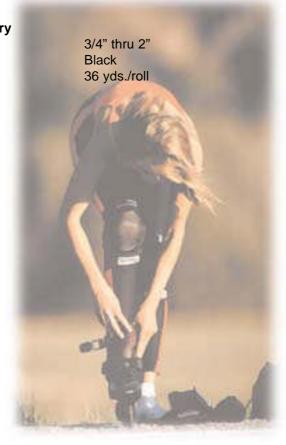


313 Centerfold

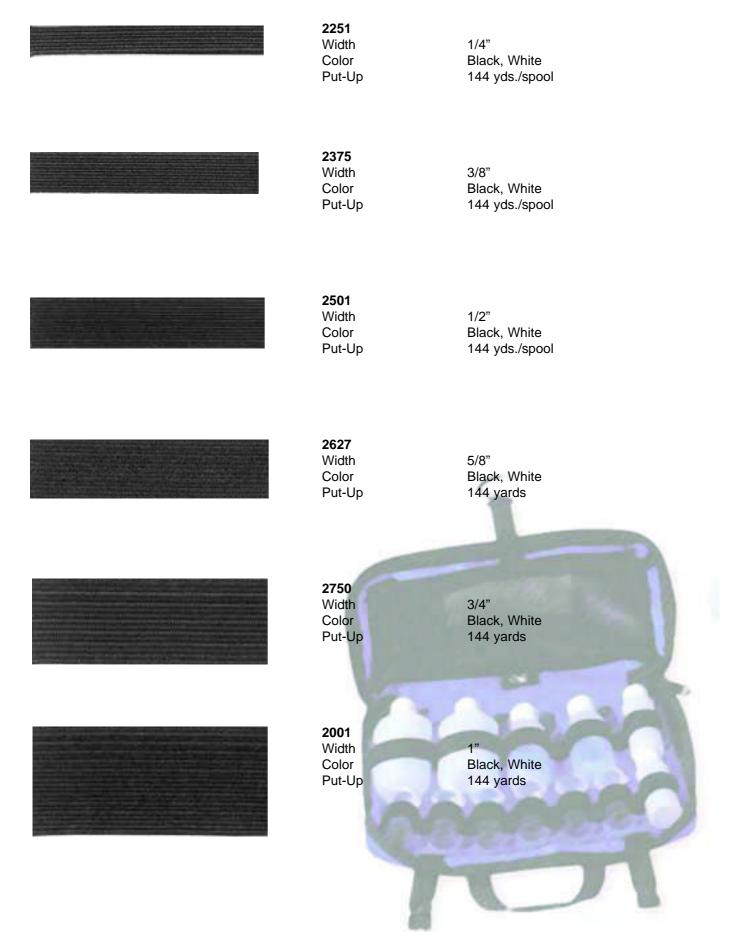
Width 1" Black Color Put-Up 25 yds./roll



D-500 Terry Width Color Put-Up



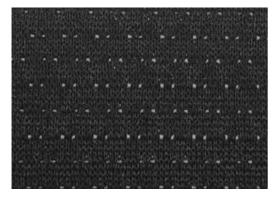
BRAIDED ELASTIC







Width 1" thru 14"
Color Black, White
Put-Up 50 yds./roll
Stretch 110%



LYC Ventilated*

Width 2" thru 8"
Color Black, White
Put-Up 50 yds./roll
Stretch 110%



^{*} Manufactured with Lycra®. Lycra® resists cutting by needle, resistant to chemical degradation and has superior flex life.

Knitted Elastics are available in plush back. Finishes that range from light to heavy. Colors available upon request. Custom elastic can be manufactured to your specifications.

5063 Polyester

Width Approx. 1/16" Color Black, Natural Put-Up 500 yds./spool

325 Nylon or Polypropylene

Approx. 1/8" Width Color Black, Natural Put-Up 1,000 yds./spool 50' Hank/dz-Natural

100' Hank/dz-Natural

3070 Nylon

Width Approx. 1/8" Color Black

Put-Up 1,000 yds./spool

550-07 Nylon Paraline

Approx. 1/8" Width

Color Black-Colors upon request

Put-Up 1,000 yds./spool

3350 Nylon Utility Sleeve - Approx. 3/16"

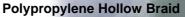
3341 Polypropylene Utility Sleeve - Approx. 1/4"

Color Black

1,000 yds./spool Put-Up

Solid Braids

Nylon Mil-C-43307 Polyester Mil-C-43256 Width 3/32" thru 1/2" Color Natural Put-Up 1,000 ft./spool



Width 1/8" thru 1/2" Color Black, White, Yellow

Put-Up 1,000 ft./spool



NYLON/POLYPROPYLENE SHOCK CORD



Polypropylene jackets also available. Custom diameter and stretch can be designed to your specifications. Custom colors and reflective yarn available.

Color: Natural or Olive Drab

Specification: MIL-C-5040

CLASS	MINIMUM TEST (LBS.)	MINIMUM % ELONGATION	MINIMUM YARDS/LBS.
TYPE 1	100	30	350
TYPE 1-A*	100	30	350
TYPE II	375	30	105
TYPE III	550	30	75
TYPE IV	750	30	55
*Coreless			

Color: Natural or Camouflage Green 483

Specification: PIA-C-7515 (Used primarily for cargo chutes, nets and assemblies)

Dash No.	Type Cord	Breaking Strength, pounds (min	No. of Carriers	Ends per Carrier	Total Ends	Length per pound feet (min) ²	Elongation percent (min)
-l	I	400	16	3	48	330	20
-2	la	400	16	2	32	330	20
-3	II	550	16	3	48	255	20
-4	III	750	16	6	96	150	20
-5	Illa	800	24	3	72	175	10
-6	IV	1000	16	6	96	120	20
-7	V	1500	16	9	144	90	20
-8	VI	2000	16	12	192	60	20
-9	VII	2500	16	14	224	45	20
-10	VIII	3000	24	12	288	36	20
-11	XI	300	16	7	112	480	20
-12	IX ³	1000	16	6	96	120	20

²A minus tolerance of 10 percent in length will be allowed for dyed cord ³Class F-Fluorocarbon impregnated (see 1.2 of spec)

JOHN HOWARD COMPANY, INC. STATES: CONVERTERS MUST CONDUCT THEIR OWN END-ITEM PERFORMANCE TESTS.

(SeeTerms and Conditions on Page 1 for more information)

Nylon Twisted Multifilament

Produced from high-tenacity yarns, which are twisted, plied, dyed and heat set in order to achieve strong sewability and excellent strength-to-size ratio.



Fiber Type 6.6 Nylon
Finishes Bonded & SST*
Thread Construction
Sizes Available Light: T-16, T-21, T-30
Medium: T-45, T-70

Medium: T-45, T-70 Heavy: T-90, T-105, T-135

Extra Heavy: T-210, T-270, T-350, T-400

Advantages • Excellent abrasion resistance.

Very good seam strength.

Consistency in diameter.

• Superior strength to other thread constructions of equal size.

Consistency in physical characteristics.

• Good chemical resistance.

• When bonded, very good ply adhesion.

Very good sewability.

Comments Melts when temperatures exceed 480°F.

Chemical resistance is not as good as polyester.

Ultraviolet (UV) resistance is generally not as good as polyester.

Military Specification Approved by the Federal Government to supply nylon under Federal

Specifications A-A-59826.

Polyester Twisted Multifilament

Stronger and more economical than many threads.

Resists deterioration from chemical treatment, mildew, abrasion, and ultraviolet radiation.

Fiber Type Polyester
Finishes Bonded & SST*
Thread Construction Sizes Available Light: T-16, T-21, T-30
Medium: T-45, T-50, T-70,

Heavy: T-90, T-135

Extra Heavy: T-210, T-270, T-350, T-400, T-600, T-700

Advantages • Good ultraviolet (UV) light resistance.

· Consistency in diameter.

· Consistency in physical characteristics.

Good chemical resistance.

• Very good abrasion resistance.

• Very good colorfastness.

Very good seam strength.

• When bonded, very good sewability.

• Low moisture regain - not subject to mildew

Comments Melts when temperatures exceed 480°F.

May not sew as well as Bonded Nylon on some applications.

Military Specification Approved by the Federal Government to supply polyester under Federal

Specifications Mil-DTL-32072

^{*}SST finish is soft, stretched and twisted.

ANEFIL / ANECORD NYLON THREAD COLOR CHART

Soft or Bonded / Available in Prewound Bobbins



*Denotes color stocked in Chino, CA in Nylon Size 69 (Tex 70) Bonded - Limited quantities available, stock subject to prior sale.

^{**}Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.**

ANEFIL / ANECORD NYLON THREAD COLOR CHART

Soft or Bonded / Available in Prewound Bobbins



^{*}Denotes color stocked in Chino, CA in Nylon Size 69 (Tex 70) Bonded - Limited quantities available, stock subject to prior sale.

^{**}Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.**

NYLON / POLYESTER THREAD PRODUCTS

Nylon Monocord

Fiber Type Nylon
Finishes Bonded
Thread Construction Monocord
Sizes Available Light: T-35

Medium: T-45, T-70 Heavy: T-90, T-105, T-135 Extra Heavy: T-150, T-350

Advantages

• Flat and ribbon-like cross-section.

- Excellent abrasion resistance.
- Very good seam strength.
- Low seam profile.
- Superior strength to other thread constructions of equal size.
- Consistency in physical characteristics

• Good chemical resistance.

Comments

Melts when temperatures exceed 480°F.

Chemical resistance is not as good as polyester.

Ultraviolet (UV) resistance is generally not as good as polyester.

Spun Polyester

Fiber Type Polyester Thread Construction Spun

Sizes Available Light: T-21, T-27

Medium: T-40, T-45 Heavy: T-60, T-70

Extra Heavy: T-90, T-105, T-120, T-135

Advantages

- Reduced variation in construction.
- Excellent lubricity.
- Stronger than cotton threads of equal size.
- Excellent seam strength.
- Very good chemical resistance.
- Very good abrasion resistance.
- · Very good colorfastness.
- Less expensive than core threads.

Comments

Melts when temperatures exceed 480° F - not as good resistance to needle heat as

cotton wrapped.

On certain types of sewing machines, it may not sew as well as core threads.



POLYESTER / CORE WRAPPED THREAD PRODUCTS

Polyester Textured

Fiber Type Polyester
Thread Construction Textured
Sizes Available Light: T-18

Medium: T-24, T-35, T-50 Heavy: T-70, T-105

Advantages • Excellent seam coverage.

• Good resistance to chemical degradation.

• Superior thread lubricant that allows it to be sewn with minimum thread tensions.

• Partially translucent so it blends in with many shades.

• Less expensive than core, spun, air entangled threads, & higher tenacity textured

threads.

Comments Harder to thread the needle as compared to spun threads.

Melts when temperatures exceed 480° F. Will not sew on lockstitch machines.

Can snag on rough surfaces causing problems.

Polyester Wrapped / Polyester Core

Made entirely of polyester. Provides more strength than cotton, so you can use a smaller size without sacrificing the strength of your seams. Offers a beautiful sheen, excellent sewability, and reduced seam pucker.

Fiber Type Polyester Core, Polyester Wrapped

Finishes Soft*
Thread Construction Corespun
Sizes Available Light: T-18, T-24

Medium: T-30, T-40, T-50 Heavy: T-60, T-80, T-105

Extra Heavy: T-120, T-135, T-150

Advantages

- Higher strength per size than spun polyester or cotton wrapped (CW) core threads.
- 10% to 15% stronger than CW Core threads of equal size.
- Excellent sewability.Superior ply security.
- Recommended for automatic sewing machines (multi-directional).
- Very good seam strength.
 Very good chemical resistance.
 Very good abrasion resistance.
- · Very good colorfastness.

Comments Melts when temperatures exceed 485°F.

Does not have as good of needle heat resistance as cotton wrapped.

^{*}Soft refers to thread that receives no further processing to change its general physical characteristics. It is dyed to the proper shade and degree of color fastness, wound on the proper size package, and lubricated for sewability.

POLYESTER WRAPPED / CORE PRODUCTS

Cotton Wrapped / Polyester Core

Combine the strength of a polyester core with the superior sewability of a high-lubricity cotton wrap. Result in a thread that creates, smooth seams with great looks and natural "give". Stand up to high-speed sewing, offering high resistance to needle burn and decreasing the need for seam repairs.



Fiber Type Polyester Core, Cotton Wrapped

Finishes Soft*, Glaced**
Thread Construction Corespun
Sizes Available Light: T-24, T-3

Light: T-24, T-35 Medium: T-40, T-50 Heavy: T-60, T-80, T-105

Extra Heavy: T-120, T-135, T-150

Advantages • Can provide a wash-down look.

Excellent sewability.

 Recommended for automatic sewing machines (multi-directional).

• Very good needle heat resistance.

Good chemical resistance.Good abrasion resistance.

• Very good seam strength.

Comments Melts when temperatures exceed 485°F.

Not as color-fast as 100% polyester threads.

^{*}Soft refers to thread that receives no further processing to change its general physical characteristics. It is dyed to the proper shade and degree of colorfastness, wound on the proper size package, and lubricated for sewability.

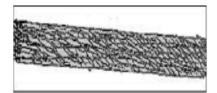
^{**}Glaced refers to a finish in which 100% cotton and some cotton wrapped core threads are treated with starches, waxes, and special chemicals under controlled heat and then brushed or polished to a high luster. The result is a glossy, hard finish that protects the thread from abrasion and enhances ply security during the sewing of hard to penetrate fabrics.

THREAD CONSTRUCTION



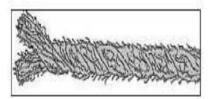
Core Thread

Is made by spinning a wrap of staple cotton or polyester around a continuous filament of polyester fibers. Afterwards, two or more of these single yarns are twisted together to form the thread. Core threads have fuzz on their surface giving them good lubricity characteristics and also a continuous filament core that contributes to high strength and durability. When wrapped with a cotton wrap, core threads have very good needle heat resistance. When wrapped with a polyester wrap, core threads have excellent chemical resistance and colorfastness. Core threads are used in everything from fine blouses to heavy coveralls and overalls.



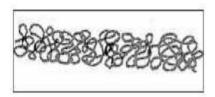
Monocord Thread

Is produced from continuous filaments of nylon that have been bonded together. They have very little twist so that they look like a single cord of yarn. Because of the way these threads are made, they appear to be flat and ribbon-like, which provides a high degree of resistance to abrasion. Monocord threads are exceptionally strong for their size so they are used in the manufacturing of furniture, shoes, and other heavy duty applications.



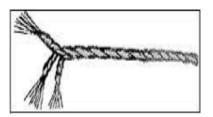
Spun Thread

Is made from cotton or polyester staple fibers that are spun into single yarns and then two or more of these yarns are plied to make a sewing thread. Spun threads have fuzz on their surfacing giving them a soft hand and good lubricity characteristics. Spun threads are used in everything from women's lingerie to heavy leather gloves.



Textured Thread

Is made from continuous filaments of polyester or nylon that have been textured by pin, disc, or belt and then heat set to insure proper bulk retention. Textured polyester is usually manufactured with regular or mid tenacity, continuous filaments depending on the application. Textured threads are ideal for overedge, chainstitch, and coverstitch of the finished seam and offers good seam elasticity. Textured threads are usually less expensive when compared to other thread types.



Twisted Multifilament Thread

Is made from continuous filaments of polyester or nylon that are twisted together into a cohesive bundle and then plied to make the thread. They are then dyed, stretched, and heat set to achieve the desired physical characteristics. Twisted Multifilament threads are available either soft or with an additional bond for better ply security and abrasion resistance. They are exceptionally strong for their size and they have excellent resistance and durability. These threads are used for seaming everything from bathing suits to automobile upholstery.

Although Kevlar's heat resistance is not as great as that of Nomex, Kevlar's strength is superior to all other fibers. In fact, Kevlar is five times stronger than steel by weight. It has become the thread choice in those special high stress, volatile applications that require extreme strength and heat protection.

Keylar Twisted Multifilament



Fiber Type Kevlar

Thread Construction Twisted Multifilament

Sizes Available Medium: T-40, T-60

Heavy: T-135

Extra Heavy: T-210, T-400

Advantages • Very high strength - stronger than steel.

• Very good heat resistance.

Comments Natural color is yellow. Available in dyed black solution.

Very expensive as compared to Polyester or Nylon sewing threads.

Decomposes at approx. 840° F

Resistance to degradation during long term exposure at elevated

temperatures is not as good as Nomex.

Mil-Spec Approved by the Federal Government to supply Kevlar under Federal

Specifications A-A-55220.

Spun Kevlar

Fiber Type Aramid

Finishes Soft

Thread Construction Spun from staple

Sizes Available Light: T-35

Medium: T-50, T-60 Heavy: T-70, T-90, T-105

Advantages • Excellent resistance to short term heat exposure.

• Excellent strength.

• Good resistance to most organic solvents.

• Not affected by age.

• Excellent mildew resistance.

Comments Decomposes quickly if exposed to chlorine bleach.

Low elongation may require special machine adjustments. Kevlar is dyed with cationic dyes which have poor UV resistance.

Very expensive when compared to other types of threads.

Mil-Spec Approved by the Federal Government to supply Kevlar (Spun) under

Federal Specifications A-A-55195.

While both fibers are chemically similar, they are different in some ways. Nomex is extremely heat resistant. It will not char at temperatures higher than 675 degrees Fahrenheit. This makes it extremely desirable in safety garments used in potentially high heat applications.

Multifilament Nomex®

Fiber Type Nomex®
Thread Construction Multifilament

Sizes Available Medium: T-40, T-60

Heavy: T-90, T-135 Extra Heavy: T-210

Advantages • Excellent prolonged heat resistance.

• Does not readily ignite.

Does not melt.Not affected by age.

Excellent mildew resistance.Excellent abrasion resistance.

• Superior long-term resistance to heat compared to Kevlar.

Comments Natural color is off-white.

Decomposes at 700°F

Very expensive when compared to other types of threads.

Mil-Spec Approved by the Federal Government to supply Nomex under Federal Specifications

A-A-50195.

Spun Nomex®

Fiber Type Aramid Finishes Soft

Thread Construction Spun from Staple Sizes Available Light: T-27

Medium: T-40, T-60 Heavy: T-80, T-90

Advantages • Excellent resistance to heat exposure.

Good resistance to most organic solvents.

• Not affected by age.

Excellent mildew resistance.
Excellent abrasion resistance.

Superior long-term resistance to heat compared to Kevlar.

Comments Decomposes quickly if exposed to chlorine bleach.

High elongation may require special machine adjustments. Very expensive when compared to other types of threads.

Mil-Spec Approved by the Federal Government to supply Nomex (Spun) under Federal

Specifications A-A-55217.

Kevlar and Nomex are trademarks of E.I. DuPont DeNemours, Inc.

		Tex Size	Standard Ticket	US Gov. Ticket A-A-59826 (Supersedes V-T-295)	Min. Strength *
		T-14			
		T-16		00	1.8
	Light Weight	T-18			
lylon Twisted		T-21		A	2.8
Multifilament		T-30	33	AA	4.1
	Ma dives Maialet	T-45	46	B/2	6.0
	Medium Weight	T-70	69	Е	9.0
		T-90	92	F	11.8
	Heavy Weight	T-105			
	'	T-135	138	FF	17.5
		T-210	207	#3	27.0
	<u> </u>	T-270	277	#4	36.0
	 	T-350	346	#5	45.0
	Extra Heavy Weight	T-400	415	#6	54.0
	Extra ricavy vvcigiti	T-500	462	#7	04.0
		T-600	554	#8	72.0
	-	T-700	693	#10	72.0
		T-16	093	#10	
				00	1.0
	Limbt Waimbt	T-18		00	1.8
Nylon Monocord	Light Weight	T-27		A	2.8
,		T-30			
		T-35		AA	4.1
	 	T-45	46	В	6.0
	Medium Weight	T-60		_	
		T-70	63	E	9.0
		T-90		F	11.8
	Heavy Weight	T-105			
		T-135			
	Extra Heavy Weight	T-150			
		Tex Size	Standard Ticket	US Gov. Ticket Mil-DTL-32072 (Supersedes V-T-285)	Min. Strength *
		T-16		00	1.5
		T-18			
Nalusata:	Light Weight	T-21		A	
Polyester		T-30	33	AA	3.0
wisted	 	T-35	33	701	0.0
/lultifilament		T-45	46	B/2	4.5
	Medium Weight	T-50	70	B/3	7.0
	wedum weight	T-70	69	E E	8.0
		T-90	92	F	10.6
	Llagary Majaba		92	Г	10.6
	Heavy Weight	T-105	400	FF	10.0
		T-135	138	FF	16.0
		T-180	007	"2	05.0
	<u> </u>	T-210	207	#3	25.0
	<u> </u>	T-270	277	#4	34.0
	<u></u>	T-300			
		T-350	346	#5	42.0
	Extra Heavy Weight				40.0
	Extra Heavy Weight	T-400	415	#6	48.0
	Extra Heavy Weight	T-400 T-500	462	#7	48.0 60.0
	Extra Heavy Weight	T-400			

Federal Specifications

Upon request the John Howard Company supplies Nylon thread to meet Federal Specification A-A-59826 (supersedes V-T-295) and Polyester thread to Federal Specification Mil-DTL-32072 (supersedes V-T-285). Federally approved to supply this material to the U.S. Government and all government contractors and sub-contractors. *SEB-Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

	Application	Tex Size	Standard Ticket	Avg. Strength *
	Light Weight	T-18	T-18	1.6
	Light Weight	T-24	T-24	2.1
Textured Poly	Medium Weight	T-35	T-35	3.2
	Weddin Weight	T-50	T-50	5.3
	Heavy Weight	T-70	T-70	5.9
	rieavy weight	T-105	T-105	7.7
		T-16		1.2
	Ex-Light Weight	T-18		1.4
Spun Poly	EX-Light Weight	T-21		1.8
		T-21	100/2	1.7
		T-27	70/2	2.1
	Light Weight	T-27	50/3	2.2
		T-30		2.3
		T-40	50/2	3.2
	Medium Weight	T-45	40/3	3.6
	Wediam Weight	T-60		4.7
		T-60	30/3	4.8
		T-70	24/3	6.3
	Hoovey Woight	T-80		7.1
	Heavy Weight	T-90	20/3	7.6
		T-105	16/3	9.7
		T-120		10.6
	Ex-Heavy Weight	T-135		11.1
		T-240		19.8
		T-270		
	= 1:1:14	T-16		1.7
Poly Wrapped Poly Core	Ex-Light Weight	T-18	XXF-140	2.1
	1 . 1 . 1 . 1	T-24	XF-100	2.7
	Light Weight	T-30	MF-70	3.5
		T-40	M-50	4.5
	Medium Weight	T-50	H-30	6.7
	Heavy Weight	T-60	T-60	7.8
		T-80	T-80H	9.0
	, ,	T-105	T-100	10.6
		T-120	T-120	13.5
		T-135		16.6
		T-150		18.0
	Ex-Heavy Weight	T-180		21.0
		T-240		25.1
		T-300		31.5
		T-24	XF-100	2.2
Catton Museused	Light Weight	T-35	MF-70	3.0
Cotton Wrapped		T-40	M-50	3.6
oly Core	Medium Weight	T-50	MH-40	4.6
		T-60	T-60	7.2
	Heavy Weight	T-80	T-80H	7.6
	l loar, worgin	T-105	T-100	8.0
		T-120	1 100	11.3
		T-135	XH-16	13.7
		T-150	XXH-12	15.1
	En Han William	T-180	///II-12	17.6
	Ex-Heavy Weight	T-240	+	19.3
		T-300		26.5
		T-350		28.6

^{*}SEB-Single End Break (lbs.) All strengths are for comparative purposes and should not be used as minimum requirements.

Hook & Loop Fasteners

Description

Woven Nylon and Polyester Hook & Loop Fastening Tapes

• Material: 100% Polyamide 6.6 Nylon

• Material: 100% Polyester

Availability

• Stocked widths: 3/8", 5/8", 3/4", 1", 1-3/16", 1-1/2", 2", 3", 4", 5", 6"

• Dozens of standard colors in stock (see color card), many other colors available, plus dye-to-match colors for precise color coordination.

Custom **Fabrication** • Full range of colors

Pressure sensitive coatings, (acrylic and rubber based)

Circles

Straps with or without plastic or metal hardware

Die cut shapes

Cut pieces

• Custom widths, (by slitting or weaving)

• Pad printing in one or two colors

Characteristics

• Washable and dry cleanable

• Maximum shrinkage 2%

• Closure strength increased in cold temperature

Can be sterilized in autoclave

• Rust-free, non-metallic, non-jamming

• Durable and virtually maintenance free

• High cycle life

Standard Features • Can be cut to any length and can be sewn, stapled or glued to most materials.

• When pressed together, the hooks and loops form a reusable closure which is adjustable

and secure.

Independently tested to open and close over 10,000 times.

• Resists acids and alkalines, and provides excellent insulation.

• 100% Polyester is designed to resist the damaging effects of ultraviolet light and salt water.

• Excellent for use in marine environments and for general outdoor use.

Polyester tape does not have the life cycle of standard nylon tape.

Packaging

• 25 yard rolls; other put-ups available

Yardage of standard carton varies depending on tape size and type.

Technical Information • Hook tape: 280 hooks per square inch

• Loop tape: 680 loops per square inch

Physical Test (100% Nylon

Regular Type)

Opening & Closing Cycles		New	After 5,000 Cycles	After 10,000 Cycles
·*		Min.	Min.	Min.
Shear Strength	pounds/inch	12.23	9.24	7.39
Peel Strength	pounds/inch	3.56	2.84	2.35

Manufacturing Information

Swiss made needle looms and strict quality control assure consistent quality with superior performance.

Military

AVAILABLE BY SPECIAL ORDER **Specifications**



Standard Hook & Loop

Width 1/2", 5/8", 3/4", 1", 1-3/16", 1-1/2", 2", 3", 4",

5", 6"

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials 100% Nylon Polyamide 6.6

100% Polyester

Features 100% Nylon Polyamide 6.6

Durable

 Can be cut to any length and can be sewn, stapled or glued to most materials.

• Can be washed, sterilized, autoclaved, dry cleaned and safely hand ironed in the

closed position.

• Independently tested to open and close

over 10,000 times.

 Resists acids and alkalines, and provides excellent insulation.

100% Polyester

Designed to resist the damaging effects of

ultraviolet light and salt water.

Excellent for use in marine environments.Does not have the life cycle of standard

nylon tape.



HL-004 Self-Adhesive Fastening Tape

Width 1/2", 5/8", 3/4", 1", 1-3/16", 1-1/2", 2", 3, 4",

6"

Put-Up 25 yards/roll (standard) or 27.5 yards/roll Materials Nylon 6.6 / Rubber (PSB#1) or Acrylic (PSB#5)

Features PSB#1

 Based on a synthetic rubber and resin system giving a strong instant bond

Avoid direct exposure to sunlight and U.V.

PSB#5

 A permanently tacky, 100% solid acrylic solvent polymer

• Good U.V. and water resistance



HL-007 Un-Napped Loop Fastening Tape (NBR)

Width 5/8", 3/4", 1", 1-3/16, 1-1/2", 2", 4"

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Nylon 6.6

• Designed for use with standard hook tape.

 Offers significantly greater shear strength and latch strength and can be cycled in excess of 30,000 times without significant

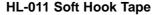
weakening of the tape.

• Less peel strength than regular loop.

Choose from any of our most popular colors or order custom colors dyed to match any color chip.*

^{*}Minimums and lead times apply





Width 5/8", 3/4", 1", 1-1/2", 2", 4"

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Nylon 6.6

Features • Best when used together with Velour loop

• Less strength than standard hook

Best for light duty applications



HL-008 Mushroom Hook Fastening Tape

Width 1/2", 5/8", 3/4", 1", 1-3/16, 1-1/2", 2", 4",

5-3/16"

Color Available in black and white only

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Polypropylene 0.17 / Nylon 6

Polypropylene 0.20 / Nylon 6

Features Stronger than standard hook tape.



HL-010 Union Tape

Width 3/4", 1", 2", 4"
Color Black and white

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Nylon 6.6

Features • Alternating rows of nylon hook and loop on the

same face create a unique one-piece fastening

system

• Infinitely adjustable

• No sewing or sealing needed

• High performance



HL-009 Elastic Loop Tape

Width 5/8", 3/4", 1", 1-3/16, 1-1/2", 2", 3", 4",

Color Black and white

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Rubber / Nylon 6 / Polyester Features • Regular loop and elastic together

Choose from our any of our most popular colors or order custom colors dyed to match any color chip.*

*Minimums and lead times apply

HOOK & LOOP FASTENERS





Width 1/2", 5/8", 3/4", 1", 1-3/16, 1-1/2", 2", 3", 4", 5",

6"

Put-Up 25 yards/roll (standard) or 27.5 yards/roll

Materials Nylon 6.6 Fire retardant treated

Features • Suitable for items that do not come into contact

with the skin
• Meets FAA25.853



HL-014 Self-Adhesive Shapes

Width Diameter: 1/2", 5/8", 3/4", 7/8", 1-3/8",

1-5/8", 1-7/8"

Square: 3/4", 7/8"

Put-Up Varies depending on size

Materials Nylon 6.6 / Rubber adhesive (PSB #1)

Nylon 6.6 / Acrylic adhesive (PSB#5)

Features PSB#1

 Based on a synthetic rubber and resin system giving a strong instant bond.

• Effective air temperature range: -4 degrees F to 158 degrees F (intermittently).

158 degrees F (Intermittently).

Suggested application temperature: Room temperature

temperature

Avoid direct exposure to sunlight and U.V.

 Good adhesion to a wide range of substrates including polyethylene, metal, glass, wood, paper and plastic sheet (excluding plasticized PVC).

PSB#5

- A permanently tacky, 100% solid acrylic solvent polymer, the glue is designed for improving resistance to elevated temperature and plasticize migration.
- Effective air temperature range: -4 degrees F to 248 degrees F (intermittently).
- Suggested application temperature: Maximum 230 degrees F.
- Good U.V. and water resistance
- Good adhesion to a wide variety of substrates including paper, polyester, polyethene, glass, vinyl, wood, aluminum, metals and PVC sheet, etc.



Choose from any of our most popular colors or order custom colors dyed to match any color chip.*

^{*}Minimums and lead times apply

HOOK & LOOP FASTENERS



HL-013 Back to Back Tape

Width 5/8", 3/4", 1", 1-3/16, 1-1/2", 2", 4"

Color White, black, royal blue, red, yellow, olive green

Put-Up 25 yards/roll (standard) or 27.5 yards/roll Materials 100% Nylon standard hook on velour

Also available with mushroom hook

Features Attaches to itself, no buckle needed

Choose from any of our most popular colors or order custom colors dyed to match any color chip.*

HOOK & LOOP FASTENERS COLOR CHART



These swatches represent a small sample of the many colors we offer. To view our extensive color collection please request a color chart.

Please ask for color samples. Color may vary in catalog, due to photographic and printing processes.

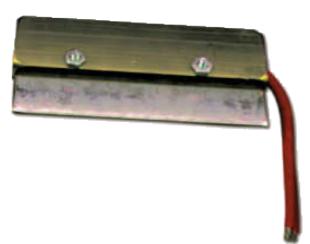
TEMPERATURE CONTROL UNITS



PC-4 Production Hot Cutter

4" Bench Cutter. This production Hot Cutter is a must for custom hand cutting or continuous production work. Cuts and seals all synthetic webbing, tape and cord in one easy step. Unit is easily bench mounted and features a 4" blade, 4" heating element and aluminum shield. Will cut material up to 4" wide. Energy efficient. Variable heat control, 110V, 500 W. Replacement parts available. All electrical components UL rated.





HU-3 Complete Heating Unit

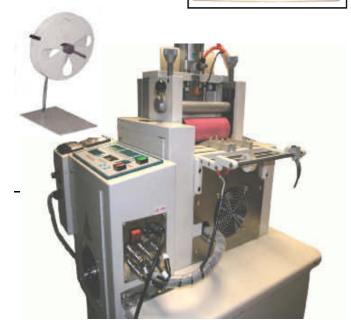
Replacement heating/cutting unit for PC-4. Unit includes brass heat sink, cal rod and blade.



No. H/C 530 Hot and Cold Automatic Electronic Cutting Machine

Will cut and count up to 99,999 pieces. Automatically stops on any count it is set for. Temperature control up to 900 degrees. It will cut elastic, webbing (Up to ¼" Thick), ribbon, belt loops, graphite, velcro, nylon cord, leather, light gauge wire, safety belts, rubber and vinyl to name a few. Tape rack included.

- POWER SUPPLY 120 volts.
- FEEDING SPEED adjustable up to 13 inches per second
- **CUTTING LENGTH** approx 400 ft.
- **CUTTING WIDTH** 4 inches
- TOLERANCE .05% of total cut
- QUANTITY up to 99.999 pieces
- COUNTER up to 99,999 pieces
- **SAFETY** knife cover sensor auto stop roll end sensor.
- SCALE inches and millimeters
- **AUTO** feed/reverse



No. H/C 810 Electronic Hot and Cold Strip Cutting Machine

Adjustable speed. Will cut and count up to 99,999 pieces and automatically stops on any count it is set for. Temperature control up to1,200 degrees.

Tape rack and stand included.

- POWER SUPPLY 120 volts. / 80 pounds of air required
- FEEDING SPEED adjustable up to 13 inches per second
- CUTTING LENGTH 400 ft.
- **CUTTING WIDTH** 6.25 inches
- TOLERANCE .05% of total cut
- **QUANTITY** up to 99,999 pieces
- COUNTER up to 99,999 pieces
- SAFETY knife cover sensor auto stop roll end sensor
- SCALE Inches and Millimeters
- AUTO feed/reverse

New Safety Features for the H/C 530 and H/C 810

Safety Handle

Heat resistant handle on the safety cover makes it safer and easier to remove the cover.

Alarm

Will sound to alert operator when the following occurs:

- A) When machine runs out of material
- B) The knife safety cover is removed
- C) When the machine reaches the amount the counter is set for (The length of time the alarm stays on is adjustable)

Auto Shut Off

When the HC-530 is set up on the hot knife system.

After turning ON the machine if the operator does not cut any material within 15 minutes the machine will automatically turn the power off to the heating element (the amount of waiting time is adjustable).

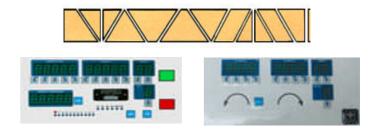
If the operator forgets to turn off the machine at the end of the day, the machine will automatically shut the power off to the heater control box. This will increase safety and reduce costs by prolonging the life of the heating elements and also lowering energy consumption.

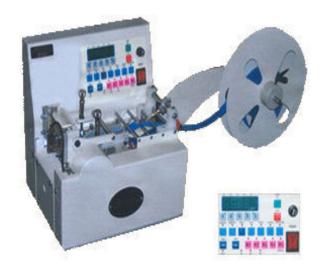
HOT & COLD CUTTING MACHINES



No. H/C 380 Hot/Cold Angle Strip Cutter

A fully automatic hot and cold angle cutting machine with a 4 ¼ inch (100 mm) wide blade. Maximum width of cut at 45° is 2 inches. The 380 is able to automatically do any angle from 0° to 45°. With a touch of a button you can set any angle you require, no mechanical settings needed. The angle settings for the front and back angles are independently controlled, There is even a setting for counter angles. The 380 has controllable dwell.





No. C-56 2" Cold Knife Strip Cutter with Memory

Cold cutting machine with 5 memory stations. Ideal for hook and loop, elastic and ribbon. With a touch of a button you can program and easily recall 5 of your most used settings. 120 V. Cuts up to 2" width.

Does not need air.



C-900 Cutting Machine for Fillet Hook & Loop Fasteners

Works like a strip cutter and can be set for different lengths. The great advantage is it cuts the pieces with a die and has many shape options. Should you require a shape not shown we can fabricate the dies to your specifications up to 2" width of any shape. Call us today for your specific requirements.

Includes one Die 101 102 107 108 109 110

Stand Available

Quick change replacement tips, elements, handles...the parts you need when you need them makes the job easier, faster.



No. 7760 Handle

Our most popular handle. This handle is lightweight, well-balanced and features a cool "soft touch" grip. This handle accepts all standard and high performance elements.

No. W-40 Hot Knife

40 Watt Complete with handle and cutting blade.

No. 65-S Nylon Cutting Unit

45 Watt. Heating element and blade.

No. 37 Heating Element

50 watts - 1000 degrees. Our most popular heating element. Excellent for continuous use in an industrial setting or cutting heavier materials. Also used with larger diameter hot hole punches.

No. 1000 Cutting Blade

Our most popular cutting blade. Customers tell us that it has twice the work life of other blades available. Recommended for general purpose and production work.

No. 100

Now available is Adapter No. 100 to allow the use of #3018 and #3316 hot hole punch on the standard heating element #37.

Fast Professional Cutting & Hot Hole Punching

Hot Hole Punches are available in most popular sizes. Great for cutting and sealing holes in one easy operation. This tool makes perfect holes for setting grommets.



No. 4035 Hole Punch

Part No.	Size	Part No.	Size	Part No.	Size
3018	1/8"	3516	5/16"	3012	1/2"
3316	3/16"	3038	3/8"	3916	9/16"
3014	1/4"	3716	7/16"	3058	5/8"

ealing with material suppliers as frequently as we do, we many times wish that a specific material could be specified as being the ideal candidate for a specific application. Unfortunately, what is considered "ideal" is many times elusive. Consequently, we cannot over-emphasize the need for our customers to thoroughly test the varieties we have to offer, in the specific application they have intended the product to be used. Recently, we have seen a good amount of mixing of materials where a male buckle might be in an acetal, and the female in nylon, in order to better maximize the properties of each material. We have found this approach to be quite effective in balancing characteristics of impact resistance, water absorption and price economies.

ACETAL • You can not beat this stuff for its stiffness and tensile strength and consequently, people (especially in the U.S.), prefer the "macho" feel in side release buckles. However, Acetal's biggest strength lies in its ability to resist moisture through absorption, and it consequently performs very well under freezing or arid conditions. The acetals we mold are Dupont's Delrin® and Hoechst Celanese Celcon®. Be careful, however, acetal's high stiffness can make it susceptible to impact.

from being accepted only in the European market to being used in over 60% of the applications in the U.S. Why not? Nylon offers great impact resistance under normal operating conditions. It is light, flame retardant and has a softer feel for side release buckles. When used on a typical single piece product it is not unusual to obtain a 20 - 30% increase in tensile strength over acetal. The kicker, of course, is that nylon absorbs water and under freezing conditions can become embrittled. We mold Dupont and Monsanto nylons.

NYLON • We have seen nylon grow from being accepted only in the European market to being used in over 60% of the applications in the U.S. Why not? Nylon offers great impact resistance under normal operating conditions. It is light, flame **POLYPROPYLENE •** Its major advantage is that it's cheap. Use this material where load bearing and impact are minimal. Another advantage is that the material offers a very soft feel for side release buckles, which is ideal for children.

Disclaimer

WARNING: PRODUCTS SHOWN IN THIS CATALOG ARE NOT FOR USE IN ANY PRODUCT INTENDED TO PROVIDE SAFETY OR PROTECTION TO ANY PERSON.

You must independently evaluate the suitability of, and test each product for their use in your application. JOHN HOWARD COMPANY disclaims any liability resulting from its use. JOHN HOWARD COMPANY's only obligations are those in our Terms and Conditions of sale and in no case will JOHN HOWARD COMPANY be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use or misuse of its products. The customer assumes all risk for the suitability for a particular purpose unless JOHN HOWARD COMPANY specifically represents in writing to the contrary.

ROCK LOCKSTER® AND STREAMLINE® BUCKLES

STREAMLINE® SIDE SQUEEZE®

The ultimate in a streamlined, durable design. Completely shielded web adjustment and attachment points. Enlarged finger action sections. Totally contoured.

Incredibly strong.

Colors: Black and many others

Material:		Nylon	Acetal
	Size:	Male/Fem.	Male/Fem.
3/4"	(20mm)	5889/5890	5910/5911
1"	(25mm)	5656/5657	5912/5913
1-1/2"	(40mm)	5832/5833	5914/5915

ROCK LOCKSTER ®

Our new design for the new millennium. Wildly stylized but incredibly functional. Every aspect of this design incorporates all the technology we have developed over the last decade. Starting with the male, we have incorporated our Virtual Locking® system for exceptional strength and the overlapping bar structure provides for greater slip resistance. The female's exterior profile allows the user unexcelled easy access to release the male component and built into the side support structures for the back bar, we have overlapping "double walls" for added

Colors: Black (Other colors available)

strength.

 Material:
 Acetal
 Nylon

 Size:
 Male/Female
 Male/Female

 3/4" (20mm)
 7315/7316
 7392/7393

 1" (25mm)
 7145/7146
 7394/7395



STEALTH WARRIOR ® BUCKLES

In our drive to make our designs more compact, we have introduced our Stealth Warrior Series. By incorporating our new Virtual Locking System® along with large finger access areas, we have developed an extremely strong product for its relatively compact, low profile shape -ideally suited for hip belt applications where high loads are a consideration.

Color: Black (other colors available)

Material: Nylon Acetal

Size: 1-1/2" (38mm)

Single Adjust 6584/6585 6581/6582 **Dual Adjust** 6581/6583 6584/6586

Size: 2" (50mm)

Single Adjust 5618/6513 6405/6483 **Dual Adjust** 5618/5619 6405/6406



STEALTH ® SIDE SQUEEZE ® BUCKLES

For the minimalists who wanted the shortest, sleekest buckle we could design, we have produced the

Stealth®. Consider the Stealth® as a baby brother to our Streamline®. The Stealth® offers the hefty finger release area and general over-all appearance common to the

Streamline®, just in a smaller, more medium weight form. Although compact in size, the Stealth® series incorporates our new Virtual

Locking® system, which offers impressive strength. Ideal for compression straps and tight areas and

strong enough to handle most any load on a backpack or soft luggage.



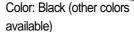
Having adjustments on both sides is increasingly becoming popular. One advantage is that with dual adjustment, it is easier to keep the buckle centered on a hip belt

application. You can also vary the position of the "snapped together" male and female buckles in order to ensure placement is in the most conveniently accessible location on the pack. Another feature is that when the female buckle is not permanently sewn into a seam, the product can easily be replaced. While we have offered dual adjust product for a number of years, this year we

introduce our Stealth® version.



6358 Male 6410 Female



Material:		Acetal	Nylon
Male 3/4"	(20mm)	6403	5616
Fem. 3/4"	(20mm)	6404	5617
Male 1"	(25mm)	6358	5614
Fem. 1"	(25mm)	6359	5615

(Note Stealth® is a registered trademark of S Industries, Inc.)



QUIK ATTACH STEALTH ® FEMALE

Finally, a simple means of performing an easy repair on a field broken female buckle without ripping apart the entire seam. The Quik Attach system, which is also available in **Tensionlock®**

products, also has found usage as a simple means to add pouches onto backpacks.

Color: Black

Material: Acetal

Size: 1" (25mm) **6411** (Female)

(mates with Male Stealth)

HIGH RELEASE ANGLE STEALTH ® MALE

We have incorporated our patented high release angle of our Tensionlocks® into the male buckle of our popular Stealth® design.

Color: Black (other colors available) Material: Acetal Nylon Male 1"(25mm) 7225 7375 (mates with Female Stealth)

SINGLE BAR STEALTH® MALE

In many circumstances, adjustment is not needed on the male buckle, especially for briefcase and portfolio closures. In our Stealth® version, we offer a nonadjusting male.

Color: Black

Material: Acetal Size: 1" (25mm) 6812 (mates with Female Stealth)

QUIK ATTACH STEALTH ® MALE



Color: Black Material: Acetal Size: 1" (25mm) 6764 (Male)

(mates with Female Stealth)

ANTI-BREAK® MALE STEALTH® & STEALTH® WARRIOR

Sometimes subtle design improvements can result in major end-user

enhancements. Continuing our evolution of the Stealth® Series of Side Squeeze® buckles, incorporated our we have new patented Anti-Break® leg retaining straps, which drastically prevent the male legs from being broken when accidentally bent outwards. We have also

incorporated our patented High Release Angle feature of our Tensionlocks®, which helps prevent web slippage. And, finally, we have included the high strength Virtual Locking® system, which allows us to obtain high tensile loads in a sleek, lower profile, short design.

Color: Black

Material: Nylon Acetal Polypro Size: 1" (25mm) 7006 7005 7422 2" 7008 7007 7423 (50mm)

(Mates with Female Stealth and Stealth Warrior)

Note: 1" Stealth Female in Polypro 7439 2" Stealth Female in Polypro 7440

BIG DOG WIENERLOCK® BUCKLE

Whoever said size doesn't count? Our big, beefy bruiser is made to handle abuse. Utilizing our patented "V" lock and high release angle web adjusting systems, the "Big Dog

is designed to handle some hefty loads.

Acetal

Color: Black

Material:

Male/Fem. Male/Fem.

Nylon

7313/7066

Sizes:

3/4" (20mm) 1" (25mm)

7167/6729 7168/6982

7288/7068

DUAL ADJUSTABLE BIG DOG

WIENERLOCK® Dual adjustment for our beefy friend.

Color: Black

Material: Acetal

Size:

1" (25mm)

7168

Male

7241

Female

WIENERLOCK® DOG COLLAR

BUCKLE

Roll over Fido! Our ultrastrong, highly stylized curved version of our Stealth® offers significantly "beefier" walls for extra strength.

Color: Black

Material: Acetal Nylon Male/Fem. Male/Fem.

Sizes:

5/8" (15mm) 6843/6844 7063/7064 3/4" (20mm) 6728/6729 7065/7066 1" (25mm) 6981/6982 7067/7068

1" PLASTI-METAL BUCKLE **ASSEMBLY**

Developed for dog collars. Metal core buckle with a tensile strength far greater than any plastic buckle-(450# approx.)

Color: Black

Material: 302 Stainless Steel male and female locking inserts with

Acetal mold-over.

Sizes:

7333

KITTY CLIP

Maybe the smallest side squeeze buckle ever developed. Utilizes the smooth contoured shape of our

Stealth® design. Ideal for

cat collars.

Color: Black

BREAK-AWAY CLIP

Looks identical to the kitty clip except this clip is designed to pull apart with less than 10 pounds of force.

Color: Black

Material: Acetal Male Female

Size:

3/8" (10mm) 7308 7262



THE LOCK MONSTER® BUCKLES

By utilizing premium impact resistant alloys and a perfectly curved, slip resistant profile, our 2-inch (50mm)

Dual Adjust

hip belt buckle is designed to withstand extreme radial loads, car doors and hiking boots under the coldest conditions. Available in single and double sided adjustment.

Color: Black (other colors available)

Material: Acetal Nylon

Size 2"(50mm) Male/Fem. Male/Fem.

Single Adjust 5433/5431 5436/5434

5433/5432 5436/5435

MOJAVE® SIDE SQUEEZE®
BUCKLES

A long-time favorite, which features the patented rounded, highly stylized appearance of the Mojave® design coupled with an extremely smooth action.



Color: Black (other colors available)

		(,,	
Mate	rial:	Acetal	Nylon	Polypro
		Male/Fem.	Male/Fem.	Male/Fem.
Sizes	S:			
5/8"		5292/5293	5449/5611	(N.A.)
3/4"	(20mm)	5205/5206	5179/5180	(N.A.)
1"	(25mm)	5000/5001	5129/5130	5055/5056
*30m	m	5207/5208	5181/5182	(available)
1-1/2	,,,	4494/4507	5295/5296	4920/4921
40mm	n	5209/5210	5183/5184	(available)

*Available only in Italy.

DUAL ADJUSTABLE SIDE SQUEEZE® BUCKLE

The Mojave® styling of our Side Squeeze® products is available in 3/4", 1"and 1-1/2" versions in order to keep the buckle centered and loads equally proportioned.

Color:	Black			
Material:		Acetal	Nylon	
		Male/Fem.	Male/Fem.	
Sizes				
3/4"	(20mm)	5205/6014	(N.A.)	
1"	(25mm)	5000/5317	(N.A.)	
1_1/2"		AAQA/AQ15	5205/5/12	



DUCKBILL® AND STREAMLINE® TENSIONLOCK®

"SHORTY" SINGLE BAR **DUCKBILL® TENSIONLOCK ®**

A very short, low profile single bar version of our new Duckbill® design. Ideally suited for an ice axe buckle.





Nylon 6636

STREAMLINE® TENSIONLOCK®

A radically unique style to our Tensionlock® product, incorporates a smooth shield to cover the sewn webbing end for a beautifully sleek appearance.



Material: Nylon Acetal Polypro Size: 3/4" 5900 5929 5931 1" 5888 5930 5932 (25mm)

SINGLE BAR POWERPRO® DUCKBILL® TENSIONLOCK ®

A pivoting version incorporating the high release angle of our Power Pro® series and the duckbill shaped, highly contoured tab for easy release.



Color:	Black	
Materi	al:	Nylon
Size:	1" (25mm)	7170



SINGLE BAR DUCKBILL® **TENSIONLOCK®**

A "light" version of our pivoting **Duckbill®** design which also can snap into our 4977 Curvette Snaphook.

Color: Black

Material: Nylon Size: 1" (25mm) 7169

DUCKBILL® TENSIONLOCK®

Our Duckbill® **Tensionlock®** offers an enlarged finger release tab with an integrated fully rounded style that tested the limits of our 3D computer aided design capability. An absolutely elegant shape dominates the simple useful functional appearance of what

will become our next standard heading into the next century. We have incorpo- lanyard. rated our patented high release angle feature to accomplish an "ever so slightly" higher release angle than our standard Tensionlocks. Different from our "true" high release angle pull applications, where a high release angle might be difficult to cinch.

Color: Black

Material: Nylon Acetal Sizes:

3/4" 6973 (20mm) 6423 1" 6422 6974 (25mm)

MEGA DUCKBILL® WITH TEETH

Featuring a sturdy wall structure for high strength and teeth to prevent web slippage.

Color: Black Material: Nylon

Size: 1"(25mm) 7224

CURVED DUCKBILL® TENSIONLOCK

The fully integrated shape of our

"Duckbill" tab has now been expanded into a curved variation.

Color: Black

Material: Nylon Acetal Size: 3/4" 7078 7424 (20mm) 7000 7004 (25mm)

MEGA DUCKBILL

We have expanded our Duckbill® Tensionlock® design to a stronger version. Also available with a hole through the front tab.

Color: Black

Size: 1" (25mm)

Nylon

Material: Acetal 6637 7026

MEGA DUCKBILL® WITH HOLE

We added a hole to the front tab to accommodate a



POWERPRO® AND STANDARD TENSIONLOCK®

POWER PRO® TENSIONLOCK® BUCKLE

Since its introduction the Power Pro® has become the premier **Tensionlock®**



offer, being utilized for the most demanding applications. Utilizing a contoured profile and a sweeping rounded back bar arrangement, the Power Pro®

has a truly distinctive appearance.

Color: Black

Material: Acetal Nylon Size: 1" (25mm) 4955 5280

STANDARD TENSIONLOCK **BUCKLE**

Recognized by the Coast Guard and U.L. The nonslip design can withstand loads over 200 pounds.



Color: I	Black
----------	-------

Material:	Acetal	Nylon	Polypro
Sizes:			
1/2" (12mm)	4925	(Avail.)	(N.A.)
5/8"	4792	(Avail.)	(N.A.)
3/4"	4218	5111	(N.A.)
20mm	5214	5188	(N.A.)
1" (25mm)	4199	5060	5057
30mm	5215	5189	(N.A.)

DUAL ADJUSTABLE TACKDOWN TENSIONLOCK®

When fixed to a central point, the adjustment from both sides allows you to adjust your load from side to side.



Color: Black Material: Acetal Size: 1" (25mm) 4976

RJ TENSIONLOCK®

Heavy Duty construction, lightweight.

large relesae tab allows for easy activation.



SINGLE BAR POWER PRO® TENSIONLOCK®

A pivoting version of our popular Power Pro®



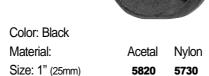
Tensionlock® for demanding applications.

Color: Black

Material: Acetal Nylon 5425 Size: 1" (25mm) (Avail.)

CONVERT TENSIONLOCK®

A more conventional style of our Power **Pro® Tensionlock®** with a straight bar in the back.



Color: Black, **All Military Colors** Material: Aceta Size: 3/4" (20mm) 10477

DUAL STERNUM STRAP ADJUSTER

We have incorporated two guide

loops to either side of a one-inch Sliplok to create a convenient adjustable means to

attach chest straps to the shoulder pads. Our new design significantly

simplifies the two-piece assemblies currently being used.

Color: Black

Material: Nylon
Size: (25mm to 25mm) 5971
(25mm to 20mm) 6042

STERNUM STRAP ADJUSTER SLIPLOK® BUCKLE

A design solution to simplify the attachment of a sternum strap to shoulder pads. The integrated Sliplok® component allows for easy vertical adjustment.

Color: Black

Material: Acetal
Size: 3/4" adjuster to 3/4" loop
1" adjuster to 1" loop
1" adjuster to 3/4" loop
5002
1" adjuster to 3/4" loop

MOD-U-LOX® STERNUM STRAP SYSTEM

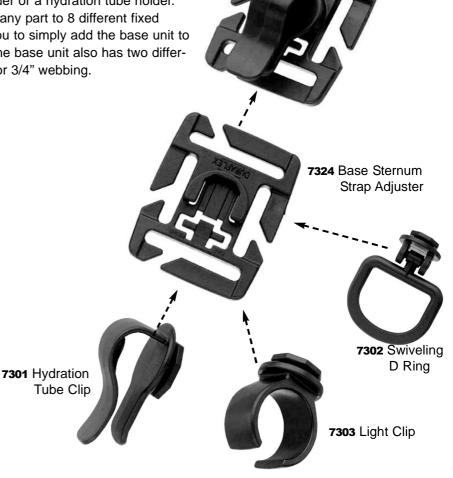
An ideal system combines simplicity with modularity. We have incorporated a "quick change" snap-in receptacle into a Sternum Strap Adjuster, which can receive a swiveling D Ring, a light holder or a hydration tube holder. The hexagonal mount allows you to rotate any part to 8 different fixed positions. The slotted outside bars allow you to simply add the base unit to any position along the shoulder harness. The base unit also has two different web widths to accommodate either 1" or 3/4" webbing.

Color: Black Material: Acetal

7301 Hydration Tube Clip7302 Swiveling D Ring

7303 Light Clip

7324 Base Sternum Strap Adjuster



WIDE MOUTH CAMERA SLIPLOK®

Designed by ex-Grumman aerospace engineers, this 3/8" Sliplok was used on strap assemblies for cameras sent to Jupiter.

Color: Black

Material: Nylon Size: 3/8" 6994

SLIPLOK® BUCKLE

Sleekly designed, yet incredibly durable, these buckles have become standard hardware for soft luggage, camera bags and backpacks.

Colors: Black or White (* other colors available)

Material:	Acetal	Nylon E	conomy
Sizes:			
3/4"	4217	4675	6801
20mm	5211	5185	-
*1" (25mm)	4129	4676	6264
30mm	5212	5186	-
1-1/4"	4789	6263	-
*1-1/2"	4128	5058	6265
40mm	5213	5187	-
2" (50mm)	4127	5039	6802

LOW PROFILE SLIPLOK® BUCKLE

Like the name implies.

Color: Black Material: Nylon

55

Size: 3/4" (20mm) 5774

SLEEK WIDE MOUTH SLIPLOK®

A new design generally used in belt and dog collar applications.

Color: Black		
Material:	Nylon	Acetal
Sizes:		
5/8"	6846	7102
3/4"	6847	7103
1"	6848	7104

HEAVY DUTY SLIPLOK® BUCKLE

Designed for military standards.



Colors: Black or White

Material:		Acetal	Nylon	
Sizes:			78.7	
1"	(25mm)	4783	3858	
1-1/2"	(38mm)	7246	7279	
2"	(50mm)	4784	(N.A.)	

3/8" SLIPLOK®

A trim design, ideally suited for cat collars.

Material: Acetal Size: 3/8" 7298



WIDE MOUTH SLIPLOK®

Designed for thick web application.

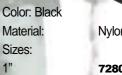


COIDI. DIACK	
Material:	Nylor
Sizes:	

J/U	(1311111)	3270
3/4"	(20mm)	5271
1"	(25mm)	4813

SLIPLOK® WITH TEETH

A simple "non-slip" replacement for cam locking buckles. Ideal for elastic.





HIGH RELEASE CURVED TENSIONLOCK® BUCKLE

We have incorporated a curved

design that naturally contours around the lines of a backpack with a revolutionary patented



web tensioning bar arrangement that dramatically improves the release angle over any preexisting designs.

Color: Black

Material: Acetal Nylon Sizes: 3/4" 5319 5318 1" (25mm) 5229 5338

MOJAVE® CURVED TENSION-LOCK® BUCKLE WITH HOLE

The added hole allows for installation of a pull tab.

Color: Black Material: Size: 1" (25mm)

Acetal Nylon 5141 5282

STANDARD RELEASE CURVED **TENSIONLOCK®**

BUCKLE

Our uniquely contoured features are available with a standard release for straight pull or thick webbing applications.



Color: Black (*Other colors available.)

COIOI.	Color. Diack (Other Colors availa		
Materia	al:	Acetal	Nylon
Sizes:			
3/4"	(20mm)	5701	5394
*1"	(25mm)	5700	5393
1-1/2"	(40mm)	5405	5852
2"	(50mm)	W308	W307

SINGLE BAR CURVED TENSION-**LOCK® BUCKLE**

By incorporating a pivot bar with our contoured design and high release angle feature, this Tensionlock®



product is used to retain items of a small circumference. Ideally utilized on an ice axe or side compression strap.

Color: Black

Material: Acetal Nylon 5281 Size: 1" (25mm) 5142

QUIK ATTACH TENSIONLOCK ®

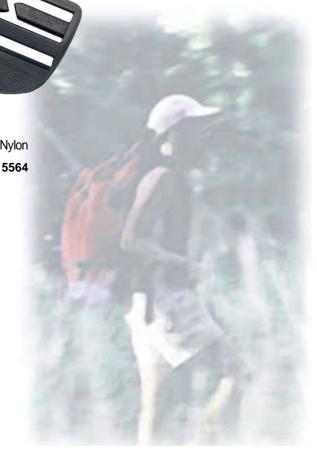
A unique slotted bar, designed to

simply slip onto a fixed sewn webbing loop. Great for field repairs. A simple means to attach pockets.



Material: Acetal Nylon Size: 1" (25mm) 8664

Size:1-1/2" (40mm) 9399



SNAPHOOKS AND RETAINERS

CURVETTE® SNAPHOOK

Designed utilizing a unique sleek, curved appearance, our snaphook interlocks with a variety of other components as shown on this page.

Color: Black

Material:

Acetal Nylon **5315 4977**

FEEL-SAFE® SNAPHOOK

Unique interlocking design prevents accidental disengagement.

Colors: Black or White Material: Acetal

Nylon

4402 4694

GLOVE HOOK AND O RING

Durable and lightweight. Designed exclusively for glove applications.

Color: Black
Material: Acetal
Hook 4891
O Ring 4892

FEEL-SAFE® SNAPHOOK ASSEMBLIES

Colors: Black or White Material: Acetal Nylon (available upon request)



CURVETTE® RETAINER/REDUCER

Strong durable design to match the Curvette® Snaphook. The 1" slot also makes this

item a perfect reducer to downsize either 2" or 1-1/2"

webbing to 1".

Color: Black
Material:
Sizes:
1" (25mm)
1-1/2" (40mm)

2"

 (25mm)
 5530
 (Avail.)

 (40mm)
 4979
 5216

 (50mm)
 4978
 5543

Acetal

Nylon

SNAPHOOK RETAINER

Assembles with Feel-Safe® Snaphook to retain webbing.



Colors: Black or White

Material:	Acetal	Nylon	Economy
Sizes:			
3/4"	4406	5198	6803
20mm	5224	5198	6803
1" (25mm)	4405	5538	6804
30mm	5225	5199	
1-1/2"	4404	5200	
40mm	5226	5200	
2" (50mm)	4403	5422	

CURVETTE® SNAPHOOK

Color: Black 4977
With curved
Tensionlock® 5142



PLASTI-METALLIC® HOOK

We have incorporated the spring steel latch of a

mountaineer's carabineer with our Hangman Swivelling System to create a very strong hook for heavy duffel bags, golf bags and luggage.

Color: Black

Material: Nylon Size: 1" (25mm) 6725 1-1/2" (40mm) 6726 2" (50mm) 6727

HANGMAN SWIVEL SNAPHOOK

Our "selfcinching" swivel design allows us to create a sleeker, more streamlined look with surprising strength.

Color: Black Material: Nylon Size: 1" (25mm) 6013 1-1/2" (40mm) 5575 (50mm) 5577

MINI PLASTI-METALLIC® HOOK **ASSEMBLY**

We have taken our Plasti-Metallic hook and reduced it for smaller applications. Still very strong, good for duffel bags and luggage.

Color: Black Material: Nylon Size: 20mm

> 25mm 7854

7853

POSI-GRIP® BUNGEE

CORD HOOK Incorporating a unique selfcinching cam mechanism, our new hook offers simple attachment to 1/4" diameter bungee cord.



Acetal 6945 6944

KEY RING HOOKA modified version of our Feel-Safe® Snaphook to fit split rings for keychains.

Color: Black Material: Acetal

6807

QUIK ATTACH CARGO HOOK

A very simple means of attaching a hook to either standard or elastic cordage. Can accommodate varying cord diameters. Idea for cargo nets

Color: Black Material: Acetal (with tongue) 6851 (without tongue) 6852



MINI HANGMAN SWIVEL

We have incorporated the ultrastrong "self-cinching" pivoting structure of our Hangman Swivel into

a miniature snaphook. Ideal for light pouches or passport holders or as a keychain holder.

Color: Black Material:

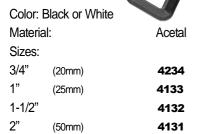
Nylon Size: 3/4" (20mm)

6395

6355 (25mm)

LOOP

Double bow absorbs shock and eliminates web bunching towards center.



SLOTTED LOOP

Excellent as a "loose-end" web retainer.

Color: Black			
Materia	Nylon		
Sizes:			
3/4"	(20mm)	6046	
1"	(25mm)	5660	
1-1/2"	(40mm)	6047	
2"	(50mm)	6048	

Soft, flexible, sewable tab speeds the attachment process by eliminating the need for webbing.

SEWABLE LOOP

Color: Black or White

Material: Nylon

Sizes: 1-1/4" **5996**1-1/2" **5995**



COMMON LOOP

Strong, durable design.



UNI LOOP Simple inexpe

Simple inexpensive yet strong.

Color:	Black	
Material:		Nylon
Sizes:		•
5/8"		5858
3/4"	(20mm)	5770
1"	(25mm)	5358
1-1/4"		6131
1-1/2"	(40mm)	6130

CONTOURED SEWABLE LOOP

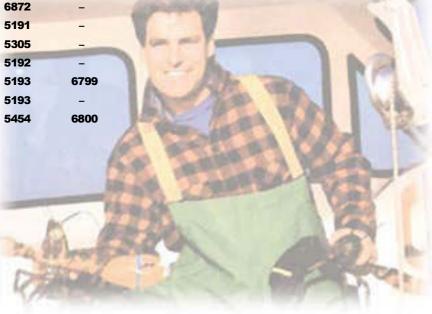
Curved profile and short sewable tab are ideal for tight space applications.





5219

4581



40mm

2" (50mm)

D RING



Colo	's: Black or	White	
Mate	rial:	Acetal	Nylon
Sizes	S:		
1/2"		(Avail.)	5488
3/4"	(inter.)	5047	(Avail.)
3/4"		4757	5357
7/8"	(22mm)	4993	5528
1"	(25mm)	4274	5283
1-1/2	"	4275	(Avail)

HEAVY DUTY D RING

Designed for heavier loads.

TRIANGLE

Equilateral design.

Centers

load and

Colors: Black or White

(^ other colors available)		
Material:	Acetal	Nylon
Sizes:		
*3/4"	4886	5365
*1" (25mm)	4777	5354
30mm	5220	5194
1-1/2"	4775	5195
40mm	5221	5195

BEASTEE DEE®

Beastee Dee® is the latest in strength and design. The 1/2" is designed for lacing and cordage, while the 3/4" and up can be used with our Plasti-Metallic® hook, on bags or anywhere an average D-ring is used. Our design is carried through with our Rock Lockster® and Lil Lockster® to give a new shape with increased performance beyond the common hardware.



	Color: Materia	al:	Black Acetal / Nylon
	Sizes:		
	1/2"	(13mm)	7585 - Acetal
	3/4"	(20mm)	7586 - Acetal
į.	1"	(25mm)	7456 - Acetal
ľ	1-1/2"	(40mm)	7587 - Nylon
	2"	(50mm)	7588 - Nylon

SNAPHOOK LOOP

Sturdy modern design closely engages Snaphook to minimize play.

Colors: Black or White			
Materia	al:	Acetal	Nylon
Sizes:			
1"	(25mm)	4429	5421
1-1/2"	(40mm)	4428	5190
2"	(50mm)	4407	5423

DOUBLE BAR

DRING Added retaining bar to better secure the attachment strap.

Colors: Black or White

Material:	Acetal	Nylon
Material:	Acetal	Nylor

Sizes:

1"	(25mm)	4781	5485
2"	(50mm)	4776	6716



STRAP KEEPER

Simple keeper designed to handle at least two layers of thick webbing.





LOW PROFILE STRAP KEEPER

Simple and sleek.

Color:	Black		
Material:		Nylon	
Size:			
5/8"	(thin)	5525	
	(thick)	5609	
	(thick)	5776	
Overs	size:		

5777

5553



CAMERA STRAP KEEPER

Designed by a team of engineers to reduce wind drag. Essential for photo journalists under fire.

Color: Black
Material: Nylon
Size: 3/8" 5729



QWIK-SLIP® KEEPER

A simple design solution to tack down loose webbing. Installs permanently on the fixed webbing.



RJ Sternum Strap

(thick)

(thick)

3/4"

Heavy-duty construction, lightweight, split-bar design allows for quick attachment and removal.

Colors: Black, All Military C Material: Acetal 3/4" **10476**



Web Adpater

Qualified for use on military load bearing carriages.



Colors: Black, All Military Colors
Material: Acetal
1" - 1.25" 10344
1" - 1.5" 10441
1" - 2" 10442



JAM LEVER BUCKLE Positive jamming action locks webbing in place. Easy adjustment and quick release.

Material: Acetal/Nylon

Colors: Black White Sizes: 3/4" 4532 4646 (20mm) 1" 4647 (25mm) 4535 2" (50mm) 6925 (All Acetal)

TONA CLIP

Elegant, low profile center-push design. The shielded webattachment points create a streamlined look, ideal for pouch and portfolio closures. Attaches using 1" and 3/4" webbing.

Color: Black Material: Nylon

Sizes:

3/4" (20mm) 5836 (Male) 1" (25mm) 5831 (Female)

ADJUSTABLE TONA CLIP

We have added an adjustable female to offer our low profile "Tona" design as a decorative belt buckle for pants.

Color: Black Material: Nylon

> Female Male

Size: 3/4" (20mm) 7336 5836

CENTER PUSH STREAMLINE® BUCKLE

Utilizing National Molding's trademark maximum rounded styling, we have created a truly distinctive center push buckle. The profile is wafer-thin vet the insertion and release are uncommonly smooth.

Ideal for portfolio closures, interior luggage straps and clothing applications.

Color: Black

Material: Nylon/Acetal

Sizes:

1" **6356** (Male) (25mm) (25mm) **6357** (Female) 1-1/2" 6684 (Male) 1-1/2" 6685 (Female)

LOW PROFILE CENTER PUSH BUCKLE

Ultra thin design is ideal for watchbands.



Colors: Black or White

Material: Acetal Male/Fem Sizes: 1/2" (14mm) 4771/4772 5/8" (16mm) 4773/4774 17.5mm 4923/4924 3/4" 4805/4806 (20mm) 3/4" (20mm) 5024

(thin web adj. male only)

TRIPOINT BUCKLE

The Tripoint is our design solution for a three-point buckling system. The female has a connecting loop designed to attach to a crotch strap. The two males are designed

with strap adjusters to connect to the waist belts. The strap-adjusting bar on each male has a protective "anti-slip" fin, which protects the webbing from completely slipping off the buckle. The unique central push button simultaneously disengages both male buckles when pushed, offering tremendous convenience when looking to release your child.

Color: Black Material: Nylon

Size: 1" (25mm) 6301 (Male) Size: 1" (25mm) **6302 (Female)**

BELT BUCKLE

Recently, belts fashioned out of pattern webbing have become very popular, National Molding has been involved in developing a

number of custom buckles and we now offer a standard, highly stylized belt buckle with an incredible looking design for 1-1/4" webbing.

Color: Black

Material: Acetal Size: 1-1/4" 6385



MODULAR SYSTEMS

SLIK CLIP®

A simple solution for attaching pouches onto compression straps, daisy chains or sew-in

web loops. The universal ability for the Slik Clip® to attach to a variety of fixation points offers many possibilities.

Color: Black

Material: Acetal Size: 1" (25mm) **6548**

ADJUSTABLE SLIK CLIP®

Our extremely
versatile design adds
a web- tensioning
feature to our Slik
Clip® series. The
webbing can now
be lengthened or
shortened depending
on the relative size of the pouch to the
fixation point. Also ideal as a quick
replacement for a broken
Tensionlock®.

Color: Black

Material: Acetal Size: 1" **6713**

SIAMESE SLIK CLIP®

Adding to our componentry for easy modular attachment, we are developing a double version of our Slik Clip®, which can be used for field repairs or as a connecting device between webbing loops.

Color: Black

Material: Acetal Size: 1" (25mm) **6712**

MOD-U-LOX® POUCH ATTACHMENT SYSTEM

Developed in Italy, this highly stable professional-looking sewable system provides for a quick "slide in - slide out" pouch attachment. The oval sewable base unit doubles as a decorative lashtab.

Color: Black (others available)

Material: Nylon 6
Part No. & Description:

7299 Sewable Latching Plate 7300 Sewable Oval Lashtab



DOUBLE BUDDY-LOK® SYSTEM

For larger pouches, we developed the double Buddy-Lok® system, which offers two (2) fixation points for stability. The neat aspect of this design is that the actual lashtab is used as a standard lashtab, which is sewn directly to the backpack and also can be converted to a double-swivelling interlocking piece for an attachable pouch by adding the swivelling bayonet and paddle components via an easy snap together design.

Color: Black Description:

Double Buddy-Lok® Lashtab 1"

Material: Nylon **6520**

Swivel Bayonet

Material: Acetal 6705

Swivel Paddle

Material: Acetal **6521**

BUDDY-LOK® LIGHT CLIP

For all those widget meisters, we have developed a flashlight or walking stick holder, which attaches onto our Buddy-Lok® system. The Buddy-Lok® pad can actually be mounted onto a shoulder pad or sewn directly onto a bag. The light attachment unit assembles simply by inserting the bayonet into the center hole of our Buddy-Lok® lashtab and turning 90°.

Color: Black

Material: Acetal Size: **6549**

BUDDY-LOK® POUCH ATTACHMENT SYSTEM

One of the most requested products we have been asked to develop is a modular pouch attachment system that is simple to use. The Buddy-Lok system is simple, easy to use and has a





cross-functional use as a simple lashtab. Ideal for transferring water bottle holders from the waist belt of a backpack to the waist belt of the removable lid/fanny pack.

Color: Black

Description: Sewable Pouch Attach

Male Fitting

Material: Nylon

6456

Description: Sewable 25mm Lashtab (with

hole)

Material: Nylon

6457

ORTHOPEDIC AND BACK SUPPORT PRODUCTS

CONTOURED SEWABLE LOOPS



Colors: Black, White, Beige, Dark Blue

Material: Nylon
Size: 1" **6225**1-1/2" **6226**2" **6227**

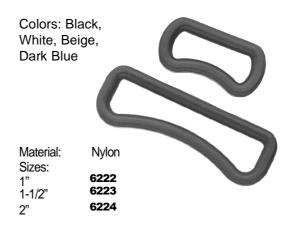
STRAIGHT SEWABLE LOOP



Beige, Dark Blue

Material: Nylon Size: 2" **6228**

CONTOURED LOOP



DUAL STRAIGHT LOOP (RIVETED)



QUIK CLAMP SUSPENDER DIVIDER

Our open "Clam Shell" design is the quickest way of applying a Strap Divider to Suspenders. Ultra thin and available with a large area to

add logos either in the tool or by pad printing. Utilizing strap dividers offers a

major advantage over permanently sewing the crisscross. The Quik Clamp Suspender Divider allows the webbing to float with a certain degree of friction, which permits the criss-cross to center freely relative to the shoulder width of the

specific person using the product.

Colors: Different colors available Material: Polypropylene

Size: 1-1/4" or 1-1/2" 6314

BACK SUPPORT STAYS

Color: Black or	White
Material:	Polypro
Size:	
6"	6361
6-1/2"	6362
7"	6363
8"	6364
8-1/2"	6365
9"	6366
11"	6367

QUIK DISCONNECT SUSPENDER CLIPS

developed a low profile sewable stud that serves as an attachment point for a unique easy-to-assemble suspender clip. Once installed, the clips will breakaway at about 10 lbs., which offers the added feature of providing a safety in case suspenders get caught into machinery. Because the clip swivels in relation to the sewable stud, the clip will naturally swivel to match the appropriate angle of the criss-cross of the suspender, preventing any "bunching" on the fabric or elastic.

Colors: Black or White

Sewable Stud:

Material: Nylon

6249



UNILOOP

Simple, inexpensive, yet strong.

Colors: Black or White Material: Nylon Sizes: 1" (25mm) 5358

1-1/4" 6131 1-1/2" (40mm) 6130



SLEEK SLIPLOKS®

Colors: Black or White Material: Nylon

Sizes: 1-1/4" 6132

1-1/2" (40mm) 5997



Quick Disconnect Strap Retainer:

Material:	Acetal
1-1/4"	6250
1-1/2"	6266
	The state of the s
	Via Via

ZIPPER PULLS AND CORD LOCKS

POSI-GRIP® ZIPPER PULL

We have incorporated a positive "cam pinching" system into a "zipper pull" end piece, which locks securely on 1/8" diameter bungee/braided cord* or 1/4" flat cord*.

Color: Black
Material: Acetal 6884
*Cord not included.

ZIP CLIPS

Designed to work with a 2.5mm cord, our "bomb-proof", self-cinching zipper pull allows you to eliminate the metal pull and provide for a "jingle-free" long pull tab which is easy to grab, even with mittens on.

Color: Any

Material: Nylon **5938** - Outer Sheath Acetal **5939** - Inner Insert

SINGLE ZIP CLIP CORD END

Similar to our Zipper Pull, we have added a decorative cord end primarily for hood adjustment systems. Ideally suited for 3mm cord.

Color: Black

Inner Insert Acetal **7334**Outer Sheath Acetal **7335**

GROOVY ZIPPER PULL

We have expanded our positive-locking, pinching zipper pull cord end into a highly "grooved" design. Compact yet strong, the new "Groovy" Zipper Pull works ideally with both flat and 1/8" diameter cords and also bungee cord.

Color: Black

Material: Acetal* 6967

*Cord Not Included

PULL-TITE® CORD LOCK WITH NEW CONTOURED SPRING BUTTON

Re-introduced with an "easy to use" spring-loaded actuator button, our Pull-Tite® Cord Lock offers a "no slip" cord-pinching system, actively biased by an all-plastic spring. This product is ideal for those cord-cinching applications which absolutely want the strongest locking action out there. Ideal for 1/8" – 3/16" cord.

Color: Black (other colors possible)

Part No. & Description Comfort Button Acetal Housing Nylon

7182 4044

LANYARD ADJUSTOR

A simple cinching adjuster designed to accommodate 3/16" cord diameter. Ideal for Pad Printing customer logos.

Color: Black

Material: Nylon 7426

CORD LORD ®

By utilizing our patented cord pinching system, actively biased by an all plastic spring with an "easy release" pull handle, we have created the ultimate cord lock.

Designed for 1/8" - 3/16" cord.

Color: Black

Part No. & Description Material
7293 Plunger Acetal
7294 Housing Nylon

RING PULL CORD CINCHER

Excellent locking mechanism for 3/32" and 1/8" bungee cords.

Color: Black Material: Nylon

> 6854 Center-Piece Ring Pull 6853 Outside Housing

UNITARY CORD RESISTOR

Small, low profile Cord Resistor ideal for the bungee cord used in hood applications.
Side loop allows for simple attachment into the garment and one handed operation once installed

Color: Black

Material: Nylon Size: 1/8" **6742**

COFFEE CUP CORD LOCK

Small, compact Cord Lock with integrally molded plastic spring for a positive lock. The side loop allows for easy installation for applications which require one handed operation once installed.

Color: Black

Material: Acetal/Nylon Size: 1/8" 6741

POP-LOCK® CORD LOCK

We can only describe this as a side release cord lock. The parts come preloaded with the hole in



alignment, which makes it significantly easier for factory operators to install the cord locks onto garments, sleeping bags or backpacks. By simply squeezing the sides after the cord has been passed through the holes, the locking mechanism springs up pinching the cord. The all-stainless steel spring offers a 30% stronger lock than other competitive versions and although the Pop-Lock® is compact in size, it affords a larger opening to accommodate larger cords.

Color: Black 6523

Material: Acetal

Cord Size: Two 1/8"

Two 3/16" One 1/4"

EURO DOUBLE CORD LOCK

Our newest Euro-cord lock

features a curved base and plunger for ease of use. A stainless steel spring provides a stronger lock. Other cord locks will roll out of your fingers as you depress the plunger. This new design stays in your fingers.



60,000 actuations.

Non-corrosive all-

plastic design can

withstand up to

Colors: Black or White Material: Acetal and Nylon

Cord Sizes: up to two 1/8" cords

POSI-GRIP® CORD LOCK

4240 one 3/16" cord 4975

Color: Black 7621 Material: Acetal

Cord Size: two 3/16" cords

EURO SINGLE CORD LOCK

Our newest Euro-cord lock features a curved base and plunger for ease of

use. A stainless steel spring provides a stronger lock. Other cord locks will roll out of your fingers as you depress the plunger. This new design stays in your fingers.



Color: Black 7622 Material: Acetal

Cord Size: one 3/16" cord



THE MUG CORD LOCK

The idea of an integrally molded side loop for easy fixation and onehanded use was so popular in our single-cord Coffee Cup Cord Lock we have expanded the concept to a larger

version, which can accommodate two cords.

Color: Black 6932

Material: Acetal/Nylon Cord Size: two 1/8" two 3/16" one 1/4"

GROOVY POP LOCK

As part of our efforts to continously improve our innovative products, we are proud to offer the Groovy Pop Lock. This new design offers superior grip through non-slip grooves on all

external surfaces and increased strengh.

Color: Black, Military Colors 10353V Cord size: Two 1/8"

Two 3/16" One 1/4"

GARMENT PRODUCTS

SUSPENDER BUCKLE

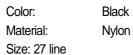
Sturdier but less costly than competitive imported versions.



Color: Black Material: Nylon Size: 1-1/2" Elastic **4302**

STANDARD SUSPENDER BUTTON

Must be assembled using a fastening machine. Offers a generous standoff clearance. Standoff Cap and Backup Eyelet.



Standoff Cap **4246**Backup Eyelet **4247**

QUICK SNAP SUSPENDER BUTTON

Designed to be assembled utilizing pre-existing automatic machines or by hand.



Color: Black
Material: Nylon
Size: 34 Line
Standoff Cap 4253
Backup Tack Button 4254

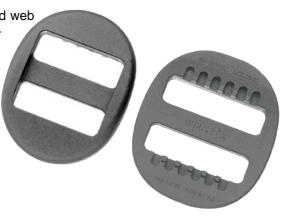
OBLIO BELT BUCKLE

Popular on many patterned web belts is the old rectangular belt buckle. Our new introduction offers a more rounded modern style.

Color: Black Material: Nylon

Sizes:

1" (25mm) **6697** 1-1/4" (30mm) **6686**





EASY ACCESS LASHTAB

Strong, sewable material with open, easily accessible web attachment area.





SLOTTED LASHTAB

RECTANGULAR

Sewable material allows lashtab to be attached to backpacks, soft cases and luggage. Accepts webbing for carrying accessories.



Color: Black Material: Elastomeric

Sizes:

3/4" (20mm) **5772** (4 slots) 1" (25mm) **5838** (6 slots)





bag application.

GRIP CLIP SUSPENDER BUCKLE

A non-corrosive, highly decorative

replacement for the generic metal alligator suspender clips. Designed

nylon fishing waders. The unique

Grip Clip system is also gentle on a

variety of delicate fabrics to prevent

Color: Black Material: Nylon

Size: 1" to 2" 5529

for 1.5" elastic, our

Grip Clip is

fashioned to

single-layer

SQUARE 2 SLOT LASHTAB

Slots allow for 90° cross web option.

Color: Black Material: Elastomeric Size: 1" (25mm)



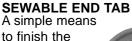
STAVE CAP

Designed to shield the rough edges of cut aluminum back staves. Fits 1" x 1/8"



Color: Black

Material: Elastomeric 5569



connection area of webbing and fabric.

Color: Black Material: Elastomeric

5773

ELASTO-LOK™ ICE AXE BUCKLE

One of our personal quests has been to develop the ultimate system to attach an ice axe or walking stick onto a backpack. Our latest design offers a stable, easy system which attaches to the "daisy chain" webbing sewn on the back of a pack. The adjustable bungee cord system gives you substantial flexibility to

handle a variety of shaft sizes. And the unique "leverlatching" system can be locked or disengaged with one hand.

Color: Black

Material: Nylon 7398

aluminum.

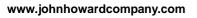
firmly grip thick insulated ski bibs. as well as

Color: Black

Material: Size: 1-1/2" (40mm)

accidental piercing.

Nylon/Acetal 6736



BICYCLE HELMET PRODUCTS

CONTINENTAL DIVIDER

An elegant complement to the Divide

& Conquer Clip. The sleek semishielded design offers a dramatic departure from the more mechanicallooking dividers.

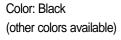


Color: Black (other colors available)

Material: Nylon Size: 5/8" 6000

ERGO-LOK®

A new completely contoured bicycle helmet buckle, which incorporates our Stealth design and "Virtual" locking system.



Acetal Material Nylon

Male Female

Size: 5/8" (15mm) 7041 6842

ROTARY LOCK STRAP DIVIDER

Our quarter-turn system has received tremendous excitement as a valueadded strap divider for bicycle

helmets. Compact and easy to use, we believe this design will be the standard to beat, offering a truly positive acting, simple system for 5/8" strap adjustment.



Color: Black

Material: Acetal/Nylon

> Housing 6350 Rotary Lock 6349 Assembly 6577

ADJUSTABLE STRAP DIVIDER

A strap divider which also offers web adjustment.



Color: Black Material: Nylon

Size: 5/8" 5661

IMPACT PRO® BICYCLE HELMET BUCKLE

Designed as our standard product to pass the rigorous standards of the Snell Memorial Foundation's testing requirements for helmet safety.



Material: Nylon Acetal Size: 3/4" 4951 4722 (Male) (Female)



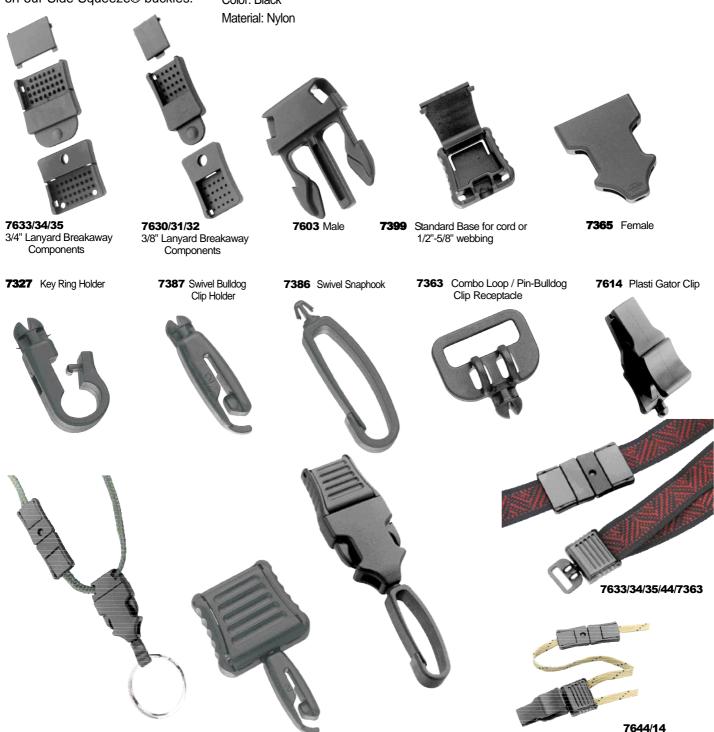
MOD-U-LOX® KEY RING AND BADGE HOLDING SYSTEM

John Howard Company, Inc. 888-564-6469

While primarily developed for the Premium Products and Promotional trades as components used in lanyard systems, our highly modular system has the potential for a multitude of applications. We have incorporated our patented "clamping system" for easy installation onto the lanyard, cord or webbing along with a "safety" release to minimize neck injuries.

7400 Quick Disconnect Male Base for cord or 1/2"-5/8" webbing
 7401 Quick Disconnect Male Base for cord or 3/4" webbing

Due to the modular componentry, it literally is a "snap" to add either a key ring holder, a swivel snaphook or a combo loop which can accept a badge pin or a "bulldog" clip. We offer a "fixed" unit and a "quick disconnect" system based on our Side Squeeze® buckles. Color: Black



SPECIALTY PRODUCTS

LIGHT DUTY STRAP SNAP

Lightweight durable designs used extensively in hockey equipment.

Colors: Black or White Material: Acetal Size: 5/8" 4221

TENT RING

Color: Black Material: Nylon Sizes:

1/2" 2885 5/8" 0007

GRIP CLIP TUBE HOLDER

A universal hydration tube clip, which can accommodate two tube sizes. Easy to remove and attach, the clip stays with the tube and attaches to almost any webbing or fabric.

Color: Black

Material: Acetal/Nylon 6887

HEAVY DUTY CHIN STRAP BUCKLE

Strong non-corrosi design fits all standard football helmet gear.

Colors: Black or White Material: Acetal Size: 5/8" 4446

MEDICAL RIVETS

Quick, simple fasteners to connect layers of fabric, plastic or foam.

Colors: Natural or Black Material: Nylon

Thickness	Head Size	Male	Female
.17 – .19	.46	7088	5603
.17 – .19	.63	5604	5603
.24 – .27	.63	6850	5603
.3234	.63	6283	5603

SLIPLOK® WITH SNAP

Non-corrosive strap adjuster is ideal for glove applications. Note: Part used in conjunction with 4243 Cap and 4244 Socket.



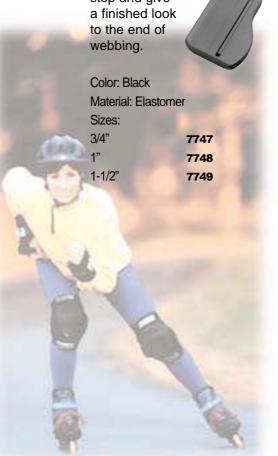


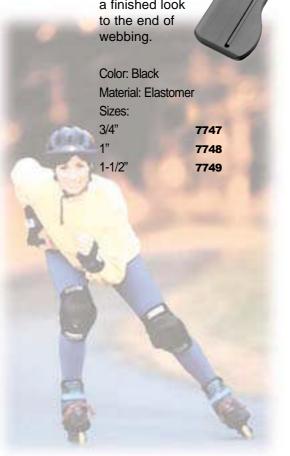
Color: Black Material: Acetal Size: 3/4"

4130

ELASTOMER TIP ENDS

released are the Elastomer Tip Ends. Sew on and they act as a stop and give to the end of





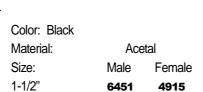
ALPINE CLIP

Uniquely designed for quick attachment and removal of an ice axe, snow shovel, walking stick or ski pole. Assembled simply with 1/8" elastic cordage and a knot. Quick adjustment feature for modifying cordage length to wraparound one or two shafts.

Color: Black Material: Nylon Male: 5757 Female: 5758 Elastic Cord: 5863

SCUBA BUCKLE

Divers seem to prefer a big tab to help lift the male buckle in order to loosen webbing on their buoyancy compensators.



FIREMAN HELMET BUCKLE

A rather unique requirement on fire helmets is to have an easy means to disengage the female from the male. We have

incorporated exaggerated "detent" ears into the female, which help a person wearing gloves to disengage the buckles.

Color: Black (Yellow Special Request) Material: Nylon Size: 3/4" **6893** Male 6894 Female

SIDE SQUEEZE® **POUCH CLIP**

Our latest design has a unique mounting system, which fixes the female buckle flush against the fabric without the need of tools. With the female fixed



firmly, it is now easy to both engage and disengage the male with one hand.

Color: Black Material: Acetal

		Male	Fem.	Backup Plate
Sizes	:			
3/4"	(20mm)	6049	6050	6051
1"	(25mm)	5000	5707	7640



SHOULDER AND LUGGAGE PADS

RECTANGULAR SHOULDER PAD

Color: Black Material: Elastomeric

Sizes:

1" (25mm) **4956** 1-1/2" (40mm) **4492**



OCTO-PAD

Tired of destroying the delicate fibers of a sweater or sports jacket or chafing bare shoulders? A completely unique design that incorporates indented suction cups provides a smooth non-slip surface and incredibly cushioned pad.



OVAL SHOULDER PAD

Rounded sleek look with "no slip" pad design.

Color: Black Material: Elastomeric Sizes:

1" (25mm) **4667** 1-1/2"(40mm) **4493** 2" (50mm) **4508**



Color: Black Material: Elastomeric

Size: 1-1/2" (40mm) **5446**

LUGGAGE FEET

Simple snap-together design handles varying fabric and board thickness. Creates a 3/8" stand-off.

Color: Black Material: Nylon

Luggage Foot **5562**Luggage Stud **5563**



ur Thermo-press handles come in four variations. Perfect for luggage, golf bags, packs and duffle bags. They can be sewn in or screw mounted and are also available to allow a company logo to be affixed to personalize the handle.







NEW PRODUCTS



LIL LOCKSTER®

Lil Lockster® is a nonadjust for sew-on
applications and
lanyards. Slim
design and
increased
access for fingers
allow for easy
release. Lil Lockster®
complements the Rock Lockster® and
Beastee Dee® in style. Mold is
designed with insert for custom
customer logos.

Color: Black Material: Nylon

Male (20mm) **7524** Female (20mm) **7525**

Colors: Blue, Clear, Light Smoke, Material: Polycarbonate

Male (25mm) **7737** Female (25mm) **7738**

KEY CHAIN BUCKLE

A unique two piece key chain buckle. Male section is designed to hold 1/2" lightweight webbing or tape. Female side to fit split rings or cordage.

Color: Black
Material: Acetal
Male: 8703
Female: 8704



Plasti-Nonmetallic® Hook

Our economical version of the Plasti-

Metallic® was
designed for heavyduty applications.
The spring steel
latch was eliminated
and a molded
latch was
incorporated



Color: Black Material: Nylon

into the hook.

Sizes

1-1/2" (40mm) **7619** 2" (50mm) **7620**

Hangman Swivel Snaphook

An addition to our Hangman Swivel Snaphook line-up is the 3/4" version.

Color: Black Material: Nylon Size: 3/4" (20mm) **7800**



Utility Hook

Our light duty utility hook is ideal for toiletry bags. Accommodates up to

3/4" webbing or tape. The large hook opening allows easy attaching.

Color: Black Material: Acetal Size: 3/4"



Incorporates a hook to our standard Zip Clip.
The Snaphook Insert



is used on garment and glove applications to secure small items.



Color: Black

Material: Nylon **5938** Outer Sheath Acetal **6613** Inner Insert Hook

MINIMEE LANYARD BUCKLES

Our Minimee Lanyard buckle can accommodate cording up to 1/4".
Compact in size, strong, designed to lay flat when worn. Two versions of the female are available, one with a standard hole to accomodate any of our Mod-U-Lox® attachments and the other designed with a small hole to accomodate thin cording.



7728 Female (Standard) **7729** Female (Phone)

Kitty Clip Male Lanyard Connector Our latest lanyard connector to be

used in conjunction with our standard Kitty Clip female. Designed for customers who need to use webbing or tape to connect their badges. Using our new Kitty Clip male connector allows cording up to 3/16" diameter to be worn around the neck. The female will accept webbing or tape up to

webbing or tape up to 3/8" wide and has the ability to have customer

engraved logo inserts.



Material: Acetal

Size: **7700** Male **7262** Female

LINE TIGHTENER

Our Line Tightener is made of durable nylon, designed for tents. Keeps lines tight without knotting cord. Accepts up to 3/16" cording.

Color: Black

Material: Nylon 5466



NEW PRODUCTS

1" STEALTH® POUCH BUCKLE

Our new
Stealth®
Pouch
Buckle was
designed to
be attached
directly to
fabric
without the
need of
sewing. Teeth
were
added to the
buckle to grip



the material allowing more holding power.

Color: Black Material: Acetal Size: 1" (25mm)

7639 Stealth Pouch Buckle Female

7640 Back-up Plate

Mates with our **6358** Stealth Side Squeeze

Male

1-1/2" SINGLE BAR DUCKBILL® TENSIONLOCK®

Designed for waist strap adjustments on backpacks. Our new Tensionlock® lays flat against webbing, to help eliminate accidental releasing of the belt. The Duckbill® design compliments all of the other Duraflex Duckbill® Tensionlocks®.

Color: Black Material: Acetal

Size: 1-1/2" (38mm) **7723**

TRI-LOCKSTER® A 3-point side

A 3-point side squeeze buckle utilizing our new Rock Lockster® design. We have developed a newpatented one-hand release system which makes disengagement a simple, quick operation. Ideal for an application which brings webbing together in a "Y" shaped format.

Color: Black Material: Acetal Male

7651 (2 Required) **7650**

Female

RELATCH SETS

Our Relatch sets can be utilized to hold fabric, carpet, and panels just to name a few uses. They are useful to secure two items together, but can be removed easily for access or cleaning. The Relatch can accommodate materials from 1/16" to 7/32" in thickness, while the Receptacle can be used from 1/16" to 1/8". The back-up plates lock the components in place.

Color: Black

Material: Acetal 7520

Dual Adjust Rock Lockster®

Newly released is our line of dual adjust

Rock Locksters®, complementing our Rock Lockster® line. An elliptical insert has been designed into the top surface of the females to allow for customers logos







Material: Acetal Male/Female 3/4" (20mm) 7315/7604

1" (25mm) 7145/7605 1 1/2" (38mm) 7606/7608 2" (50mm) 7611/7612

Male/Female 7392/7912 7394/7913 7891/7893 7928/7930

Nvlon

Quick Attach Rock Lockster®

Our new Quick Attach Rock Lockster®

female is an easy means of performing a field repair on a broken buckle, without ripping apart the seam.Other uses for the Quick Attach is a simple means to adding pouches to backpacks.

Material: Acetal 1" (25mm) 7877

Easy Access Rock Lockster® Similar to our Fireman Helmet Buckle our latest female

incorporates dual adjustability and "detent" ears to allow a person wearing gloves to disengage the buckles. Stylized to match our Rock Lockster® line.



Material: Acetal 3/4" Male 7315 3/4" Female 7457

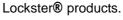
Single Bar Rock Lockster®

Male

Both males have been designed to eliminate the typical web adjusting feature. The 1-1/2"

incorporates the Anti-Break leg design and is currently being

used in the new "V" formation hip belt adjustment system. Both parts fit all our typical female Rock



Material: Acetal 1" (25mm) 7610 1 1/2" (38mm) 7609

NEW PRODUCTS

ROCK LOCKSTER®

Our new design for the new millennium.

Wildly stylized but incredibly functional.
Every aspect of this design incorporates all the technology we have developed over the last decade. Starting with the male, we have



incorporated our Virtual Locking system

for exceptional strength and the overlapping bar structure provides for greater slip resistance. The female's exterior profile allows the user unexcelled easy access to release the male component and built into the side support structures for the back bar, we have overlapping "double walls" for added strength.

Color: Black (oth	ners available)	
Material:	Acetal	Nylon
Size:	Male/Female	Male/Female
3/4" (20mm)	7315/7316	7392/7393
1" (25mm)	7145/7146	7394/7395
1 1/2" (36mm)	7606/7607	7891/7892

SWIVI LOCKSTER®

Our new Swivi Lockster® has been designed to be compact and strong.

The Swivi Lockster was stylized to complement our Rock Lockster® line. Push button locking feature allows the parts to swivel 120°. This also creates ease of use engaging and disengaging.

Material:	Acetal	Nylon
Size:	Female	Male
1" (25mm)	7778	7898
1 1/2" (38mm)	7 7 60	7900

LIL LOCKSTER®

Lil Lockster® is a non-adjust for sew-on applications and

lanyards. Slim design and increased access for fingers

allows for easy release.
Lil Lockster®
compliments the

Rock Lockster® and Beastee Dee® in style.

Mold is designed with insert for custom customer logos.

Sizes:	Nylon
3/4" (20mm) Male	7524
3/4" (20mm) Female	7525

ROCK LOCKSTER® POUCH BUCKLE

Our new Rock Lockster®
Pouch Buckles
were designed
to be attached
directly to fabric
without the
need of
sewing.

Material: Acetal Size:

 3/4" (20mm) Female
 7848

 3/4" Back-up Plate
 7849

 1" (25mm) Female
 7850

 1" Back-up Plate
 7851

ADJUSTABLE LIL LOCKSTER®

Our new thin compact and great for light duty applications.



8046 7525

COP-LOK

We have added a third locking mechanism to our Rock Lockster series of products. The extra center release catch helps prevent accidental

release. Designed for 2 1/4" belts.

Material: Acetal

 Size:
 Male
 Female

 1-1/2" Non-Adj
 8225
 8226

 2" Non-Adj.
 8227
 8228

 2-1/4" Non-Adj.
 8018
 8019



ALIEN BUCKLE STANDARD



 Color: Black

 Size:
 Male/Female

 20mm
 w229/w230

 25mm
 w226/w227

 38mm
 w222/w223

ALIEN BUCKLE DUAL ADJUST



 Color: Black

 Size:
 Male/Female

 38mm
 w222/w233

 50mm
 w235/w236

ALIEN BUCKLE MESH



Color: Black
Size: Male
20mm w2:
25mm w2:

MESH TEK LONG TAB TENSIONLOK



Color: Black Size: 20mm

25mm

Male/Female **8670 8622**

WILDEBEEST MESH TEK LONGHORN SHORTHORN



Color: Black Size: 20mm 25mm

Male/Female 8598/8599 8595/8596

WILDEBEEST MESH TEK



Color: Black Size: 20mm

25mm

Male/Female 8597/8599 8594/8596

MESH TEK SHORT TAB TENSIONLOK



Color: Black
Size: Male/Female
20mm **8669**25mm **8626**

PIXI FEMALE W/CAM MALE



Color: Black Size: 20mm

Male/Female **W155/W240**

MESH TEK DUAL ADJUST



 Color: Black

 Size:
 Male/Female

 25mm
 7145/8649

 38mm
 7606/8623

 50mm
 7611/8648

SLICK CLIP

Size: 38mm

Color: Black W225

EASY ACCESS POUCH BUCKLE



Color: Black 7315/W242/8719

S-WEBLOCK



Color: Black Material: Acetal

Size: 1"

4013 1-1/2" 4014

DOUBLE



Color: Black Size: Male/Female 3/4" **DA045** 1" **DA013**

S-METALICA HOOK



Size: 1" 4010

Color: Black

METALIC SWIVEL KEEPER



Color: Black Size: 38mm

W810

DOUBLE LOCK ROCK LOCKSTER



Color: Black Size: Male/Female 1" DN030105/DN030106 1-1/2 DN030107/DN030108

NEW SWIVEL SNAPHOOK

Variable widths for retainer and snaphook. See chart below for available sizes.



Color: Black Size:

38mm Male/Female 38mm M/ 50mm F 50mm M / 38mm F 50mm Male/Female **DN040203NQ01**

DN040206NQ01 DN040206NQ02 DN040203NQ02

SEW ON 90° ATTACHMENT SYSTEM



Color: Black PN040515NY/PN040273DNY



Multi-colored custom concept buckle with rubber textured grip

POUCH ROCK LOCKSTER



Color: Black Material: Acetal Size:

3/4" (20mm) 1" (25mm)

Female Back-Up Plate 7848 7849 7850 7851

90° ATTACHMENT SYSTEM



PN040273DNY/KNY





CORD LOCK WITH HOLE



Color: Black W459

CUSTOM PULLS & ZIP CLIPS

The custom pulls and Zip Clips below are examples of product made to customer's specifications with or without logo

GROOVY ZIPPER PULL WITH COATED WIRE



WOLF BITE PULLER

PN040529

SMALL GROOVY ZIPPER PULL WITH COATED WIRE



Y SHAPE PULLER



DOUBLE COLOR U SHAPE



ZIP CLIP MESH



CUSTOM LOGO



CUSTOM LOGO



Revised 6/11

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John Howard Company Item Number	Quantity	Size/Color	Description	Unit	Price Total Price
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John Howard Company, Inc. 4510 Schaefer Ave, Chino, CA 91710

> TELEPHONE ORDERS 1-888-564-6469 FAX ORDERS 1-909-590-1346

Total Merchandise Cost	
Shipping & Handling Charges: Actual Shipping Charges will be calculated and billed at time of shipment.	
Subtotal	
Customers in California should submit sales tax on their merchandise total. Applicable county and city taxes also apply.	
Total Amount	

NOTES	

Updated 04/26/17

