Challenge Hardware

Hardware and Supplies for Sailmaking, Canvas Fabricating and Industrial Sewing Applications

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on each fabric
and complete
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Dacron Insignia Products

Dacron Insignia Fabric

Made from a light-weight 70 x 100 denier taffeta which is laminated with 2 mils of a very aggressive, high-tack, non-yellowing acrylic adhesive formulated not to leave glue deposits on sails when removed. 4.19 oz/sq yd. Cut lengths available upon request.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INBK9	Dacron Insignia Fabric	Black	54"	50	Yards
INR9	Dacron Insignia Fabric	Red	54"	50	Yards
ING9	Dacron Insignia Fabric	Green	54"	50	Yards



Dacron Insignia Tape

Precision slit from our Dacron Insignia fabric into five convenient widths for seam reinforcement and protection or sail repairs. Custom slit tapes available upon request.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INT1	Dacron Insignia Tape	White	1"	50	Full Rolls
INT2	Dacron Insignia Tape	White	2"	50	Full Rolls
INT3	Dacron Insignia Tape	White	3"	50	Full Rolls
INT4	Dacron Insignia Tape	White	4"	50	Full Rolls
INT6	Dacron Insignia Tape	White	6"	50	Full Rolls



Dacron Draft Stripe

Precision slit from our Dacron Insignia fabric (listed above). Draft stripes are placed in parallel on racing sails and provide a way to visually monitor sail shape.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
IDBK	Dacron Draft Stripe	Black	1"	50	Full Rolls
ID2BK	Dacron Draft Stripe	Black	2"	50	Full Rolls
ID3BK	Dacron Draft Stripe	Black	3"	50	Full Rolls
IDR	Dacron Draft Stripe	Red	1"	50	Full Rolls
ID2R	Dacron Draft Stripe	Red	2"	50	Full Rolls
ID3R	Dacron Draft Stripe	Red	3"	50	Full Rolls
IDG	Dacron Draft Stripe	Green	1"	50	Full Rolls
ID2G	Dacron Draft Stripe	Green	2"	50	Full Rolls
ID3G	Dacron Draft Stripe	Green	3"	50	Full Rolls



Dacron Spreader Patch Tape

Precision slit from our Dacron Insignia fabric into convenient widths for use as spreader and stanchion reinforcement patches.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INT18	Dacron Spreader Patch	White	18"	50	Full Rolls
INT27	Dacron Spreader Patch	White	27"	50	Full Rolls



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

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Polyester Insignia Products

Polyester Insignia Fabric



Made from a light-weight 70 x 100 denier taffeta which is laminated with 2 mils of a very aggressive, high-tack, non-yellowing acrylic adhesive formulated not to leave glue deposits on sails when removed. 4.19 oz/sq yd. Cut lengths available upon request.



PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INW	Polyester Insignia Fabric	White	56"	50	Yards
INBU	Polyester Insignia Fabric	Blue	56"	50	Yards
INBK	Polyester Insignia Fabric	Black	56"	50	Yards
INR	Polyester Insignia Fabric	Red	56"	50	Yards
ING	Polyester Insignia Fabric	Green	56"	50	Yards
INGY	Polyester Insignia Fabric	Grey	56"	50	Yards
INFP	Polyester Insignia Fabric	Fl. Pink	56"	50	Yards
INFY	Polyester Insignia Fabric	Fl. Yellow	56"	50	Yards
INFO	Polyester Insignia Fabric	Fl. Orange	56"	50	Yards
INFG	Polyester Insignia Fabric	Fl. Green	56"	50	Yards
INTW	Polyester Insignia Fabric	Aramid Gold	56"	50	Yards

Polyester Insignia Tape



Precision slit from our Polyester Insignia fabric into five convenient widths for seam reinforcement and protection or sail repairs. Custom slit tapes available upon request.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INT1P	Polyester Insignia Tape	White	1"	50	Full Rolls
INT2P	Polyester Insignia Tape	White	2"	50	Full Rolls
INT3P	Polyester Insignia Tape	White	3"	50	Full Rolls
INT4P	Polyester Insignia Tape	White	4"	50	Full Rolls
INT6P	Polyester Insignia Tape	White	6"	50	Full Rolls

Polyester Draft Stripe

Precision slit from our Polyester Insignia fabric (listed above). Draft stripes are placed on racing sails and provide a way to visually monitor sail shape.



PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
IDBUP	Polyester Draft Stripe	Blue	1"	50	Full Rolls
ID2BUP	Polyester Draft Stripe	Blue	2"	50	Full Rolls
ID3BUP	Polyester Draft Stripe	Blue	3"	50	Full Rolls
IDBKP	Polyester Draft Stripe	Black	1"	50	Full Rolls
ID2BKP	Polyester Draft Stripe	Black	2"	50	Full Rolls
ID3BKP	Polyester Draft Stripe	Black	3"	50	Full Rolls
IDRP	Polyester Draft Stripe	Red	1"	50	Full Rolls
ID2RP	Polyester Draft Stripe	Red	2"	50	Full Rolls
ID3RP	Polyester Draft Stripe	Red	3"	50	Full Rolls
IDGP	Polyester Draft Stripe	Green	1"	50	Full Rolls
ID2GP	Polyester Draft Stripe	Green	2"	50	Full Rolls
ID3GP	Polyester Draft Stripe	Green	3"	50	Full Rolls



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Adhesive Products

Polyester Spreader Patch Tape

Precision slit from our Polyester Insignia fabric into convenient widths for use as spreader and stanchion reinforcement patches.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
INT18P	Polyester Spreader Patch	White	18"	50	Full Rolls
INT27P	Polyester Spreader Patch	White	27"	50	Full Rolls



TiO²+ UV Coated Insignia Fabric

Made of tough 150 denier taffeta with special UV resistant coating, TiO²+ is an excellent solution for performance oriented roller furling sails where UV protection and light weight are required. Pressure sensitive adhesive is designed to stick permanently, but if removed, glue will come off with taffeta, not stick to sail. 4.19 oz per sailmaker's yard.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
IUV18	UV Coated Insignia Fabric	White	18"	50	Full Rolls
IUV27	UV Coated Insignia Fabric	White	27"	50	Full Rolls
IUV54	UV Coated Insignia Fabric	White	54"	50	Yards



TiO2+ UV Coated Insignia Tape

Precision slit from our UV Insignia fabric in convenient for roller-furling touch-ups, leech and foot protection or any other applications that require UV resistance.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
IUV1	UV Coated Insignia Tape	White	1"	50	Full Rolls
IUV2	UV Coated Insignia Tape	White	2"	50	Full Rolls
IUV3	UV Coated Insignia Tape	White	3"	50	Full Rolls
IUV4	UV Coated Insignia Tape	White	4"	50	Full Rolls
IUV6	UV Coated Insignia Tape	White	6"	50	Full Rolls



Aramid Patch

Aramid Patch is designed for use as spreader and stanchion patches on Kevlar sails. Constructed of approximately 20K total denier per inch of 400 denier with a 150 denier polyester fill. Actual weight is about 6 oz including 1/2 mil mylar and our new super adhesive as used on our Dacron Insignia.

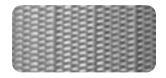
PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
MKV16PSA18	Aramid Patch	Gold	18"	50	Full Rolls
MKV16PSA27	Aramid Patch	Gold	27"	50	Full Rolls
MKV16PSA	Aramid Patch	Gold	54"	50	Yards



Spectra Patch

Spectra Patch is 650 denier in both the warp and fill, making it the strongest adhesive backed patch available. Excellent for large boat spreader and stanchion patches.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
MSP27PSA	Spectra Patch	White	59"	50	Full Rolls



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

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10 > Seaming Tapes

Tedlar® UV Film



Flexible, highly UV resistant Tedlar film coated with pressure sensitive adhesive on one side. Use to protect exposed areas on roller furling sails. 1.92 oz/sq yd.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
YTE1	Tedlar UV Film	Clear	1"	50	Rolls
YTE2	Tedlar UV Film	Clear	2"	50	Rolls
YTE18	Tedlar UV Film	Clear	18"	50	Rolls
YTE23	Tedlar UV Film	Clear	23"	50	Yards
YTE27	Tedlar UV Film	Clear	27"	50	Rolls
YTE54	Tedlar UV Film	Clear	54"	50	Yards

Dacron Seamstick

Polyester taffeta with double sided adhesive. Recommended for use when seaming laminate sails, the taffeta will help prevent seam slippage and tearing.



PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
IDSH	Dacron Seamstick	White	1/2"	50	Rolls
IDST	Dacron Seamstick	White	3/4"	50	Rolls
IDS1	Dacron Seamstick	White	1"	50	Rolls
IDS2	Dacron Seamstick	White	2"	50	Rolls
IDS3	Dacron Seamstick	White	3"	50	Rolls

Non-Yellowing Seamstick

Mylar carrier with non-yellowing double sided acrylic adhesive. Excellent tack properties.



				YD/	QTY/	ORDER
PART	DESCRIPTION	COLOR	WIDTH	ROLL	CASE	BY
AS2	Non-Yellowing Seamstick	White	1/4"	72	96	Rolls
AS3	Non-Yellowing Seamstick	White	3/8"	72	64	Rolls
AS4	Non-Yellowing Seamstick	White	1/2"	72	48	Rolls
AS5	Non-Yellowing Seamstick	White	5/8"	72	36	Rolls
AS6	Non-Yellowing Seamstick	White	3/4"	72	32	Rolls
AS8	Non-Yellowing Seamstick	White	1"	72	24	Rolls

Super-Tack Seamstick by Venture Tape

0.5 mil polyester film coated on both sides with 3 mils of an ultra high peel acrylic adhesive. Designed to immediately adhere to most types of sail material and Sunbrella without heat assist. Used by many sailmakers to seam spinnakers without sewing.



				Y D/	QIY/	ORDER
PART	DESCRIPTION	COLOR	WIDTH	ROLL	CASE	BY
ASV2	Super-Tack Seamstick	White	1/4"	60	96	Rolls
ASV3	Super-Tack Seamstick	White	3/8"	60	64	Rolls
ASV4	Super-Tack Seamstick	White	1/2"	60	48	Rolls
ASV5	Super-Tack Seamstick	White	5/8"	60	36	Rolls
ASV6	Super-Tack Seamstick	White	3/4"	60	32	Rolls
ASV8	Super-Tack Seamstick	White	1"	60	34	Rolls



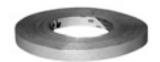
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3M Super Transfer Tape

This double-sided transfer tape is all glue and no carrier. The result is an elastic tape that stretches thus eliminating hard spots on seam lines. Perfect choice for light air sails such as spinnakers where seam stretch is desired. In independent tests this tape holds best to Challenge's stabilized finish sailcloth. Use 5 mil for slippery surfaces.

					YD/	QTY/	ORDER
PART	DESCRIPTION	COLOR	MIL	WIDTH	ROLL	CASE	BY
AS3M4-2	3M Transfer Tape	Clear	2 mil	1/2"	60	72	Rolls
AS3M8-2	3M Transfer Tape	Clear	2 mil	1"	60	36	Rolls
AS3M4	3M Transfer Tape	Clear	5 mil	1/2"	60	72	Rolls
AS3M6	3M Transfer Tape	Clear	5 mil	3/4"	60	48	Rolls
AS3M8	3M Transfer Tape	Clear	5 mil	1"	60	36	Rolls



Sail Repair Tape

Nylon Ripstop coated with pressure sensitive adhesive.

PART	DESCRIPTION	COLOR	WIDTH	LENGTH	ORDER BY
IRN	Sail Repair Tape	Natural	2"	25 ft	Rolls
IRR	Sail Repair Tape	Red	2"	25 ft	Rolls
IRDB	Sail Repair Tape	Dark Blue	2"	25 ft	Rolls
IRLB	Sail Repair Tape	Light Blue	2"	25 ft	Rolls
IRY	Sail Repair Tape	Yellow	2"	25 ft	Rolls
IRG	Sail Repair Tape	Green	2"	25 ft	Rolls
IRO	Sail Repair Tape	Orange	2"	25 ft	Rolls
IRBK	Sail Repair Tape	Black	2"	25 ft	Rolls
IRCG	Sail Repair Tape	Coast Gold	2"	25 ft	Rolls
IRFP	Sail Repair Tape	Fl. Pink	2"	25 ft	Rolls
IRFG	Sail Repair Tape	Fl. Green	2"	25 ft	Rolls
IRFY	Sail Repair Tape	Fl. Yellow	2"	25 ft	Rolls
IRFB	Sail Repair Tape	Fl. Raspberry	2"	25 ft	Rolls



Rigging Tape

Heavy gauge white vinyl tape that is highly weather and abrasion resistant, sticks while stretched. Provides excellent conformity to spreader ends and rigging.

PART	DESCRIPTION	COLOR	WIDTH	LENGTH	ORDER BY
AR3	Rigging Tape	White	3/4"	64	Rolls



Batten Tape

Recommended for use with Rutgerson batten connectors (listed on page 12).

PART	DESCRIPTION	COLOR	WIDTH	LENGTH	ORDER BY
BR2977-25	Batten Tape	White	1"	2 m	Rolls



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12> Batten Stock & Connectors

Pultruded Fiberglass Non-Tapered Batten Stock

Economical non-tapered batten stock available in both flat and round profiles.







shown at 75%

PART	DESCRIPTION	PROFILE	WIDTH/DIA	FT/LENGTH	ORDER BY
BA3A*	Batten Stock	Flat	3/8"	22	Full Lengths
BA5A*	Batten Stock	Flat	5/8"	22	Full Lengths
BAT1*	Batten Stock	Flat	1"	22	Full Lengths
BA6B*	Batten Stock	Flat	1-5/16"	22	Full Lengths
BA8C*	Batten Stock	Flat	1-5/8"	22	Full Lengths
BAT2	Batten Stock	Flat	2"	22	Full Lengths
BR4*	Batten Stock	Rod	1/4"	22	Full Lengths
BR5*	Batten Stock	Rod	5/16"	22	Full Lengths
BR6	Batten Stock	Rod	3/8"	22	Full Lengths
BR7	Batten Stock	Rod	7/16"	22	Full Lengths
BR10	Batten Stock	Rod	5/8"	24	Full Lengths
BR12	Batten Stock	Rod	3/4"	24	Full Lengths
BT2	Batten Stock	Tubular	1/2"	22	Full Lengths
BT3	Batten Stock	Tubular	3/4"	24	Full Lengths

^{*} These sizes can be coiled for UPS shipment.

Rutgerson Round Batten Connectors



HARDWARE

Fits round battens. Makes it possible to connect battens of either equal or dissimilar diameters. Use different size battens to create "tapered" batten effect in sail. Identical sized connector allow long battens to be broken down for shipping.

PART	DESCRIPTION	FITS DIA	FITS DIA	ORDER BY
B1548-0406	Round Connector	4 mm, 6 mm	0.16", 0.24"	Each
B1548-0608	Round Connector	6 mm, 8 mm	0.24", 0.31"	Each
B1548-0810	Round Connector	8 mm, 10 mm	0.31", 0.39"	Each
B1548-1013	Round Connector	10 mm, 13 mm	0.39", 0.51"	Each
B1548-1316	Round Connector	13 mm, 16 mm	0.51", 0.63"	Each
B1548-0606	Round Connector	6 mm	0.24"	Each
B1548-0808	Round Connector	8 mm	0.31"	Each
B1548-1010	Round Connector	10 mm	0.39"	Each
B1548-1313	Round Connector	13 mm	0.51"	Each
B1548-1616	Round Connector	16 mm	0.63"	Each



^{*} All sizes available in 100 ft. lengths by special order only. Please inquire.

^{*} More susceptible to breakage (especially when coiled) than our vinylester or epoxy battens. Sorry, we cannot ship coils except at customer risk.

Batten End/Pocket Protectors < 13

Rutgerson End Caps with Slots For Webbing

Fits round battens. For either fixed or adjustable batten end systems. Allows round battens to be used in flat batten pockets.

PART	DESCRIPTION	FITS DIA	FITS DIA	QTY/PKG	ORDER BY
BR1546-06	End Cap w/Slot	6 mm	0.24"	1	Each
BR1546-08	End Cap w/Slot	8 mm	0.31"	1	Each
BR1546-10	End Cap w/Slot	10 mm	0.39"	1	Each



Batten End Caps

Plastic caps are designed to fit our most popular pultruded batten stock sizes (see pg 12). Use on ends of battens to reduce batten chafe on batten pocket ends and elastic.

PART	DESCRIPTION	WIDTH	FOR BATTEN	QTY/PKG	ORDER BY
BC5	End Cap	5/8"	BA5A	100	Each
BC6	End Cap	1 5/16"	BA6B	100	Each
BC8	End Cap	1 5/8"	BA8C	100	Each



Plastidip - Batten End Protection

Liquid plastic for batten end protection, just dip and dry.

		DIP	CAN	QTY/	ORDER
PART	DESCRIPTION	COLOR	SIZE	PKG	BY
BPD	Plastidip	Black	16 fl oz	1	Each



Catamaran Jib Batten Pocket Protectors

Used on luff of small full-batten catamaran jibs and many dinghy mainsails where small size and light weight are desirable.

	PROTECTOR	REQUIRED	MAX	QTY/	ORDER
PART	DESCRIPTION	HARDWARE	WIDTH	PKG	BY
BPJ	Catamaran Jib (2 Halves)	1/8" x 1/2" Rivets*	3/4"	50	Sets

^{*} Hardware not included, see GRIG2A/GRIV3A on page 69.



Catamaran Batten Pocket Protectors

Commonly used on catamaran mains, but also can be used on inboard end of full batten mainsails.

	PROTECTOR	HARDWARE	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPS	Catamaran (2 Halves)	SS Nuts & Bolts	1 1/2"	25	Sets
BPR	Catamaran (2 Halves)	1/8" x 1/2" Rivets*	1 1/2"	25	Sets

^{*} Hardware not included, see GRIG2A/GRIV3A on page 69.



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14> Batten Pocket Protectors

Slotted Batten Pocket Protectors



Features a 1" webbing slot which enables slides to be directly webbed to protector, also has low friction modules which reduce drag against mast.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPT	Slotted (2 Halves)	6 SS Self-Tapping Phillips	1 1/4"	25	Sets
BPT2	Slotted (2 Halves)	6 SS Phillips	1 3/4"	25	Sets

Extra Wide Batten Pocket Protectors



Extra large and extra strong, for battens up to 2" wide or where the increased strength of six self-tapping screws is required.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPL	Extra Wide (2 Halves)	6 SS Self-Tapping Phillips	2"	25	Sets

Dinghy Batten Pocket Protectors



Molded in impact resistant, UV stabilized Nylon for maximum durability and reliability.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP87	Dinghy (2 Halves)	3 SS Self-Tapping Phillips	5/8"	25	Sets

Deep Groove Batten Pocket Protectors



Molded in impact resistant, UV stabilized Nylon for maximum durability and reliability.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP85	Deep Groove (2 Halves)	3 SS Phillips	13/16"	25	Sets

Flared Edge Batten Pocket Protectors



Designed for compression battens intersecting the luff at angles greater than 90°.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP105	Flared Edge (2 Halves)	6 SS Phillips	1 1/2"	25	Sets



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Batten Pocket Protectors < 15

Snap-On Batten Pocket Protectors

Halves snap together by means of 5 self locking studs. Simply press halves together and they lock into place. No screws to lose. Great for quick installations!

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP82	Snap-On (2 Halves)	None Required	1 3/4"	25	Sets



Large Batten Pocket Protectors

Extra large receptacle receives up to a 2" batten. Rounded corners and low profile make this attractive to racing sailors.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP83	Lg (2 Halves)	4 SS Self-Tapping Phillips	2"	25	Sets



Link Batten Pocket Protectors

Includes one short link and one long link plus screws for quick installations (see BPNP147A&B below).

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNBP147	Link (2 Halves)	5 SS Phillips	2"	10	Sets



Batten Pocket Protectors Links

Designed to be used with the BPNP147 batten pocket protector (listed above). Saves handsewing time while providing a sturdy luff slide attachment.

PART	DESCRIPTION	SIZE	LINK LENGTH	QTY/PKG	ORDER BY
BPNBP147A	Protector Link	Short	7/16"	10	Sets
BPNBP147B	Protector Link	Long	13/16"	10	Sets



Batten End Caps / Spacers

Extremely low profile these caps are great for use on dinghy top battens or as spacers below headboards to reduce headboard cocking.

		SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BP151	End Cap / Spacer	1 SS Phillips	1 1/4"	100	Sets



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16> Batten Pocket Protectors

Slotted Long Batten Pocket Protectors



Features a 3/4" webbing slot which enables slides to be directly webbed to protector.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP170	Slotted Long (2 Halves)	6 SS Phillips/N&B	7/8"	10	Sets

Slotted Wide Batten Pocket Protectors



Features a 3/4" webbing slot which enables slides to be directly webbed to protector.

	PROTECTOR	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP148	Slotted Long (2 Halves)	6 SS Phillips/N&B	2"	10	Sets

Small Vernier Batten Pocket Adjusters



Designed to induce camber in full length battens.

	ADJUSTER	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP156	Sm Vernier (2 Halves)	6 SS Self-Tapping Phillips	5/8"	10	Sets

Long Slotted Vernier Batten Pocket Adjusters



Features a 3/4" webbing slot which enables slides to be directly webbed to protector.

	ADJUSTER	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP155	Long Slotted (2 Halves)	6 SS Phillips/N&B	1 1/2"	10	Sets

Large Threaded Vernier Batten Pocket Adjusters



Features a 10 mm threaded nose to accept many popular sized sail cars. Fully adjustable via threaded stud.

	ADJUSTER	SCREWS	MAX	QTY/	ORDER
PART	DESCRIPTION	INCLUDED	WIDTH	PKG	BY
BPNP161	Large Slotted (2 Halves)	6 SS Phillips/N&B	1 1/2"	10	Sets



Batten Pocket Elastic

Extra thick woven elastic for best recovery and long life. Use batten pocket elastic to keep the batten in the pocket.

PART	DESCRIPTION	WIDTH	THICKNESS	YD/ROLL	ORDER BY
YBH	Batten Pocket Elastic	1/2"	0.070	25	Rolls
YB3	Batten Pocket Elastic	3/4"	0.070	25	Rolls
YB1	Batten Pocket Elastic	1"	0.070	25	Rolls
YB1H	Batten Pocket Elastic	1 1/2"	0.070	25	Rolls
YB2	Batten Pocket Elastic	2"	0.070	25	Rolls



Cam Buckles

Used for adjustment of compression battens.

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBCT	Cam Buckle	3/4"	50	Each
FBC1	Cam Buckle	1"	50	Each



Ladderlock Buckles

Engineered for strength from one solid piece with fixed middle bar. Special features assure smooth and easy tightening with less slippage and the convenience of one handed release or tightening.



PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBL5	Ladderlock Buckle	5/8"	50	Each
FBLT	Ladderlock Buckle	3/4"	50	Each
FBL1	Ladderlock Buckle	1"	50	Each



Heavy Duty Ladderlock Buckles

Heavy duty buckle, used for adjustment of compression battens and tie downs.

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBLHD	Heavy Duty Ladderlock	1"	50	Each



Side-Release Buckles

YKK Apollo series, the highest strength side-release buckles available (300 lbs. average at 1"). New high-tech design incorporates a four position lock mechanism for added safety. Non-slip adjuster ensures secure restraint. Inner rib increases impact resistance. Molded in black Delrin (acetal).

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBS	Side Release Buckle	1"	50	Each
FBS2	Side Release Buckle	2"	50	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



8> Bluestreak Untapered Battens

The Bluestreak Advantage

Bluestreak has pioneered the pultruded F.R.P. process in their quest for the ultimate sailbatten. The following superior qualities are engineered into each Bluestreak batten:

- The highest glass reinforcement percentage (approximately 68%) in the industry, resulting in a maximum stiffness to weight ratio.
- Bluestreak has developed a special vinylester resin formula for high stress applications. In the standard pultrusion process, glass fibers are oriented 100% unidirectionally which results in a potential weakness in the cross direction. Bluestreak has solved this problem with their unique X-20 additive which increases the bond between fibers and provides axial strength as well as unidirectional stability.
- Bluestreak battens are low in pigment levels. This avoids degradation of the resin cure resulting in reduced performance of the adhesive matrix. Low pigment also allows visual inspection through the profile during the manufacturing process.
- The design of Bluestreak batten profiles has been optimized to provide low mass, low profile, and to allow for infinite shape-ability.
- Bluestreak battens are produced in a climate-controlled, state-of-the-art facility on computer controlled machines. Tapered battens are precision-ground to a tolerance of less than 0.0004", yielding consistent tapers every time.
- Bluestreak battens and tips are guaranteed against faulty workmanship and materials.

BATTEN MASS

	1 11111 100
Profile	Mass
Amazon	582 g/m
OR5	400 g/m
OR4	360 g/m
OR3	315 g/m
OR2	269 g/m
OR1	203 g/m
WR3	130 g/m
WR2	116 g/m
WR1	76 g/m
Hex2	81 g/m
Hex1	49 g/m

Bluestreak Untapered Vinylester Battens Stock

PART	DESCRIPTION	PROFILE	SIZE	ORDER BY	SHIP BY
BK6	Bluestreak Coil (15 m)	WR2	15 mm x 4.8 mm	Coils	UPS
BK7	Bluestreak Coil (15 m)	WR3	15 mm x 6.5 mm	Coils	UPS
BK1	Bluestreak Coil (15 m)	OR1	20 mm x 6 mm	Coils	Truck
BK2	Bluestreak Coil (15 m)	OR2	20 mm x 8 mm	Coils	Truck
BK3	Bluestreak Coil (15 m)	OR3	20 mm x 9 mm	Coils	Truck
BK4	Bluestreak Coil (15 m)	OR4	20 mm x 10 mm	Coils	Truck
BK5	Bluestreak Coil (15 m)	OR5	20 mm x 12 mm	Coils	Truck
		_			
BK8	Bluestreak Coil (15 m)	Amazon	28 mm x 13 mm	Coils	Truck
Warning	ı! Each Bluestreak coil is und	er extreme t	ension Ends will fly if	not held firmly	,

Warning! Each Bluestreak coil is under extreme tension. Ends will fly if not held firmly. Cut tapes progressively from outside in, while undoing. Open as soon as possible after delivery.



Bluestreak End Caps

Bluestreak 10 mm Batten End Caps

PART	DESCRIPTION	WIDTH	FITS PROFILE	QTY/ PKG	ORDER BY
BT10T	Leech Tie-in End Cap	10 mm	Hex 1-2	50	Each
BT10C	Leech Crescent End Cap	10 mm	Hex 1-2	50	Each
BT10M	Slotted Outer Multi-Lock End Cap	10 mm	Hex 1-2	50	Each







Bluestreak 15 mm Batten End Caps

PART	DESCRIPTION	WIDTH	FITS PROFILE	QTY/ PKG	ORDER BY
BT15T	Tie-in Outer End Cap	15 mm	WR 2-3	50	Each
BT15M	Slotted Outer End Cap	15 mm	WR 2-3	50	Each





Bluestreak 20 mm Batten End Caps

PART	DESCRIPTION	WIDTH	FITS PROFILE	QTY/ PKG	ORDER BY
BT20A	Triangle Inner End Cap	20 mm	OR 1-5	50	Each
BT20B BT22B	Triangle Outer End Cap Triangle Outer End Cap	20 mm	OR 1 OR 2 & 3	50 50	Each Each
BTOR4 BTOR5	Triangle Outer End Cap Triangle Outer End Cap	20 mm 20 mm	OR 4 OR 5	50 50	Each





Bluestreak 28 mm Batten End Caps

			FITS	QTY/	ORDER
PART	DESCRIPTION	WIDTH	PROFILE	PKG	BY
BT28	Triangle Outer End Cap	28 mm	Amazon	10	Each





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Bluestreak Tapered Battens

BLUE STRENK

BlueStreak Dinghy Tapered Leech Battens - 25% Draft

LENG	TH		BATTEN S	SECTIONS	
mm	inch	Hex 1 – 10 mm	Hex 2 – 10 mm	WR2 – 15 mm	WR3 –15 mm
381	15	BD115			
457	18	BD118	BD218		
533	21	BD121	BD221		
610	24	BD124	BD224	BD324	
686	27	BD127	BD227	BD327	
762	30	BD130	BD230	BD330	BD430
838	33	BD133	BD233	BD333	BD433
914	36	BD136	BD236	BD336	BD436
991	39	BD139	BD239	BD339	BD439
1016	40	BD140	BD240	BD340	BD440
1067	42	BD142	BD242	BD342	BD442
1143	45	BD145	BD245	BD345	BD445
1219	48	BD148	BD248	BD348	BD448
1500	59			BD359	
		APPLICA	ATION GUIDANCE		
25' Fra	actional		1	2	3 / 4
25' Ma	asthead		1	2	3 / 4
30' Fractional				1	2
30' Ma	sthead				1/2
	Profiles actual size)				



Top = 1, Upper Middle = 2, Lower Middle = 3, Bottom = 4
Please inquire for application guidance pertaining to specific One-Design classes.

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Bluestreak Tapered Battens < 21

Bluestreak Ocean Race/Cruise Leech (25% Draft) & Full (40% Draft) Tapered Battens

LENGTH /	TYPE			BAT	TEN SECTI	ONS		
mm / in	Style	WR2	WR3	OR1	OR2	OR3	OR4	OR5
750 / 30	Leech			B17	B27			
900 / 35	Leech Full	BL69	BL79	B19 BL109	B29	B39	B49	B59
1050 / 41	Leech			B110	B210	B310	B410	B510
1200 / 47	Leech Full	BL612	BL712	B112 BL112	B212 BL212	B312	B412	B512
1350 / 53	Leech			B113	B213	B313	B413	B513
1500 / 59	Leech Full	BL615	BL715	B115 BL115	B215 BL215	B315 BL315	B415	B515
1800 / 71	Leech Full	BL618	BL718	B118 BL118	B218 BL218	B318 BL318	B418	B518
2100 / 83	Leech Full	BL621	BL721	B121 BL121	B221 BL221	B321 BL321	B421	B521
2400 / 95	Leech Full	BL624	BL724	B124 BL124	B225 BL224	B324 BL324	B424 BL424	B524
2700 / 106	Leech Full		BL727	B127 BL127	B227 BL227	B327 BL327	B427 BL427	B527
3000 / 118	Leech Full		BL730	B130 BL130	B230 BL230	B330 BL330	B430 BL430	B530 BL530
3300 / 130	Leech Full		BL733	BL133	B233 BL233	B333 BL333	B433 BL433	B533 BL533
3600 / 142	Leech Full					B336 BL336	B436 BL436	B536 BL536
3900 / 154	Leech Full					BL339	B439 BL439	B539 BL539
4200 / 165	Leech Full					BL342	B442 BL442	B542 BL542
4500 / 177	Full					BL345	BL445	BL545
5000 / 197	Full					BL350	BL450	BL550

APPLICATION GUIDANCE 25' Fractional 1/2 3 / 4 3 / 4 25' Masthead 1/2 1/2 3 / 4 30' Fractional 1/2 3/4 30' Masthead 35' Fractional 1 1/2 3 / 4 35' Masthead 40' Fractional 1 2 3 4 40' Masthead 2 3 50' Fractional 1 4 **Batten Profiles** (shown at 75%)

Top = 1, Upper Middle = 2, Lower Middle = 3, Bottom = 4

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



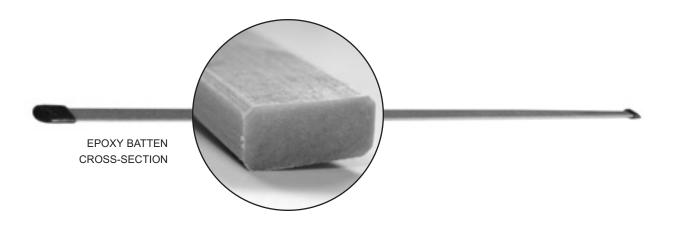
22 > About RBS Battens

RBS Batten Line

The RBS range of battens consists of four standard widths, 10, 15, 19 and 25 mm with a variety of different thicknesses and lengths to choose from. The 10 mm width is primarily used in small One-Designs and dinghyles while the more substantial 15, 19 and 25 mm widths are used in Multi Hulls, and larger boats. For applications that require an extremely stiff batten, RBS manufactures the T-700 Carbon Bar series of battens. With RBS's unique pulform manufacturing process they are able to properly math the mix of "E" glass or carbon fiber content to their flexible epoxy resin formula to precisely control the batten stiffness and produce a very durable, flexible product.

RBS "E" Glass Battens

RBS Epoxy Battens are constructed with all unidirectional "E" glass fibers in a proprietary pulforming process in which all glass fibers are pre-tensioned and aligned during the impregnation and curing process in their special Epoxy resin matrix. This manufacturing technique makes for an extremely durable and virtually unbreakable batten. Another added benefit of this manufacturing technique over the more traditional pultrusion process is the elimination of the need for lubrication. It seems that during the manufacture of pultruded type battens the resin/fiber package is pulled through a die that determines the profile of the batten. In order to keep things moving smoothly through this die, wax is sometimes used as a lubricant. Some of this wax lubricant will inevitably find its way into the composite thus weakening the bond of the resin to the fiber and in some circumstances leading to premature product failure.







RBS Carbon Epoxy Battens

RBS Carbon Race Epoxy Battens are constructed similarly to their epoxy battens, but they also incorporate a layer of carbon laminated to the outside surface of the epoxy core for additional stiffness. This manufacturing process also produces cost efficient battens by placing carbon only where it is needed, in the aft section of the sail away from the critical bend section. Carbon has three times the stiffness of "E" glass which makes carbon battens very stiff.

RBS Tapered Battens

RBS Tapered Battens are produced on custom made precision tapering machine which ensures the end user a high quality and properly tapered batten for the specific location in the sail. RBS takes extreme measures to ascertain that the proper taper is placed on each and every batten they produce. Because of their special Epoxy resin matrix they are able to taper their flex tip battens down to 0.035" (0.09 mm) which yields a very soft tip on their leech battens with little fear of breakage.

RBS History

RBS, Inc. has been manufacturing battens since 1985 when they introduced the vinylester and tube batten to the windsurfing industry. In 1990 they quickly learned that the flexible epoxy matrix and the pulform process was a superior combination for this product. RBS battens have become the benchmark batten for windsurfers and are quickly becoming the batten of choice to yachtsmen who demand the highest performance, most durable batten available.

HARDWARE

24> RBS Tapered Dinghy Battens

RBS E-Glass Tapered Dinghy Battens 10 mm and 15mm

	T		>	>	>	>	MEDIUM STIF
L (cm/in) V	/ (mm) Type	.090" / 2.3 mm	.100" / 2.5 mm	.120" / 3 mm	.140" / 3.6 mm	.160" / 4.1 mm
20 / 7.9	10	Leech Full	BBE10090-20F BBE10090-20C				
25 / 9.8	10	Leech Full	BBE10090-25F BBE10090-25C				
30 / 11.8	10	Leech Full		BBE10100-30F BBE10100-30C			
35 / 13.8	10	Leech	BBE10090-35F				
40 / 15.7	10	Leech Full	BBE10090-40F	BBE10100-40F BBE10100-40C		BBE10140-40F	
45 / 17.7	10	Leech	BBE10090-45F				
50 / 19.7	10	Leech		BBE10100-50F	BBE10120-50F	BBE10140-50F	
60 / 23.6	10	Leech Full			BBE10120-60F BBE10120-60C	BBE10140-60F BBE10140-60C	
70 / 27.6	10	Leech Full	BBE10090-70F	BBE10100-70F	BBE10120-70F BBE10120-70C	BBE10140-70F BBE10140-70C	BBE10160-70F BBE10160-70C
	15	Leech					BBE15160-70F
80 / 31.5	10	Leech Full			BBE10120-80F BBE10120-80C	BBE10140-80F BBE10140-80C	BBE10160-80F BBE10160-80C
	15	Leech Full					BBE15160-80F BBE15160-80C
90 / 35.4	10	Leech Full			BBE10120-90F	BBE10140-90F BBE10140-90C	BBE10160-90F BBE10160-90C
	15	Leech Full					BBE15160-90F BBE15160-90C
100 / 39.4	10	Leech Full			BBE10120-100F	BBE10140-100F BBE10140-100C	BBE10160-100F BBE10160-100C
	15	Leech Full					BBE15160-100F BBE15160-100C
110 / 43.3	10	Leech Full			BBE10120-110F BBE10120-110C	BBE10140-110F BBE10140-110C	BBE10160-110F
120 / 47.2	10	Leech Full				BBE10140-120F BBE10140-120C	BBE10160-120F BBE10160-1200
	15	Leech Full					BBE15160-120F BBE15160-120C
130 / 51.2	10	Leech				BBE10140-130F	BBE10160-130F
140 / 55.1	10	Leech Full				BBE10140-140C	BBE10160-140F BBE10160-1400
	15	Leech Full					BBE15160-140F BBE15160-1400
160 / 63.0	15	Leech Full					BBE15160-160F BBE15160-160C
200 / 78.7	10	Full				BBE10140-200C	
210 / 82.7	10	Full				BBE10140-210C	
				APPLICATION	CHART		
20' Masthea	d / Fra	ctional		, <u>2.0</u> /411011	Mst: 1, Frc: 1	Mst: 2 / 3, Frc: 2	Mst: 4, Frc: 3
25' Masthea					, ,	Mst: 1, Frc: 1	Mst: 2 / 3, Frc: 2
30' Masthea	d / Fra	ctional					Mst: 1, Frc: 1
	1 / Fra	ctional					



Top = 1, Upper Middle = 2, Lower Middle = 3, Bottom = 4

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RBS Tapered Dinghy Battens < 25

RBS E-Glass Tapered Dinghy Battens 10 mm and 15 mm

MEDIUM			>	>	>	>	VERY STIF
	N (mm	, ,,	.180" / 4.6 mm	.200" / 5 mm	.230" / 5.8 mm	.265" / 6.7 mm	.300" / 7.6 mm
70 / 27.6	15	Leech Full		BBE15200-70F BBE15200-70C			
80 / 31.5	10	Leech	BBE10180-80F				
	15	Leech Full	BBE15180-80F BBE15180-80C	BBE15200-80F BBE15200-80C	BBE15230-80F BBE15230-80C	BBE15265-80F BBE15265-80C	BBE15300-80F BBE15300-80C
90 / 35.4	10	Leech Full	BBE10180-90F BBE10180-90C				
	15	Leech Full	BBE15180-90F BBE15180-90C	BBE15200-90F BBE15200-90C	BBE15230-90F BBE15230-90C	BBE15265-90F BBE15265-90C	BBE15300-90F BBE15300-90C
100 / 39.4	10	Leech Full	BBE10180-100F BBE10180-100C	BBE10200-100F BBE10200-100C	BBE10230-100F BBE10230-100C		
	15	Leech Full	BBE15180-100F BBE15180-100C	BBE15200-100F BBE15200-100C	BBE15230-100F BBE15230-100C	BBE15265-100F BBE15265-100C	BBE15300-1006 BBE15300-1006
110 / 43.3	15	Leech Full	BBE15180-110F BBE15180-110C			BBE15265-110C	BBE15300-110F
120 / 47.2	10	Leech Full	BBE10180-120F BBE10180-120C	BBE10200-120F BBE10200-120C	BBE10230-120F BBE10230-120C		
	15	Leech Full	BBE15180-120F BBE15180-120C	BBE15200-120F BBE15200-120C	BBE15230-120F BBE15230-120C	BBE15265-120F BBE15265-120C	BBE15300-120F BBE15300-1200
130 / 51.2	15	Leech Full	BBE15180-130F	BBE15200-130F		BBE15265-130C	BBE15300-130
140 / 55.1	10	Leech Full	BBE10180-140F BBE10180-140C	BBE10200-140F BBE10200-140C	BBE10230-140F BBE10230-140C		
	15	Leech Full	BBE15180-140F BBE15180-140C	BBE15200-140F	BBE15230-140F BBE15230-140C	BBE15265-140F BBE15265-140C	BBE15300-1400
160 / 63.0	10	Leech Full	BBE10180-160F BBE10180-160C	BBE10200-160F BBE10200-160C	BBE10230-160F BBE10230-160C		
	15	Leech Full		BBE15200-160F BBE15200-160C	BBE15230-160F BBE15230-160C	BBE15265-160F BBE15265-160C	BBE15300-1600
170 / 66.9	15	Leech Full	BBE15180-170F BBE15180-170C				
180 / 70.9	10	Leech Full	BBE10180-180F BBE10180-180C	BBE10200-180F BBE10200-180C	BBE10230-180F BBE10230-180C		
	15	Leech Full		BBE15200-180F BBE15200-180C	BBE15230-180F BBE15230-180C	BBE15265-180F BBE15265-180C	BBE15300-180
200 / 78.7	10	Leech Full			BBE10230-200F BBE10230-200C		
210 / 82.7	15	Leech Full	BBE15180-210C		BBE15230-210F BBE15230-210C	BBE15265-210F BBE15265-210C	BBE15300-210
240 / 94.5	15	Leech Full			BBE15230-240F BBE15230-240C	BBE15265-240F BBE15265-240C	BBE15300-240
270 / 106.3	15	Leech Full			BBE15230-270F BBE15230-270C	BBE15265-270F BBE15265-270C	BBE15300-270
300 / 118.1	15	Leech Full			BBE15230-300F BBE15230-300C	BBE15265-300F BBE15265-300C	BBE15300-300
360 / 141.7	15	Leech Full			BBE15230-360F BBE15230-360C	BBE15265-360F BBE15265-360C	BBE15300-360
00114				APPLICATION (CHART		
20' Masthea			Frc: 4	Гис: 4			
25' Masthea			Mst: 4, Frc: 3	Frc: 4	Ero. A		
30' Masthea 35' Masthea			Mst: 2 / 3, Frc: 2	Mst: 4, Frc: 3 Mst: 1, Frc: 1	Frc: 4 Mst: 2 / 3, Frc: 2	Mst: 4, Frc: 3	
15 mm Ba (shown a							

Top = 1, Upper Middle = 2, Lower Middle = 3, Bottom = 4

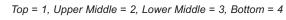
CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



26 > RBS Tapered Yachting Battens

RBS E-Glass Tapered Yachting Battens 19 mm and 25 mm

VERY SO	FT		>	>	>	>	MEDIUM STIF
L (cm/in)	W (mn	п) Туре	.160" / 4.1 mm	.180" / 4.6 mm	.200" / 5 mm	.230" / 5.8 mm	.265" / 6.7 mm
70 / 27.6	19	Leech Full			BBE19200-70F BBE19200-70C		
80 / 31.5	19	Leech Full	BBE19160-80F BBE19160-80C	BBE19180-80F BBE19180-80C	BBE19200-80F BBE19200-80C	BBE19230-80F BBE19230-80C	BBE19265-80F BBE19265-80C
90 / 35.4	19	Leech Full	BBE19160-90F BBE19160-90C	BBE19180-90F BBE19180-90C	BBE19200-90F BBE19200-90C	BBE19230-90F BBE19230-90C	BBE19265-90F BBE19265-90C
100 / 39.4	19	Leech Full	BBE19160-100F BBE19160-100C	BBE19180-100F BBE19180-100C	BBE19200-100F BBE19200-100C	BBE19230-100F BBE19230-100C	BBE19265-100F
110 / 43.3	19	Leech Full	BBE19160-110F	BBE19180-110F BBE19180-110C		BBE19230-110F BBE19230-110C	BBE19265-110F BBE19265-110C
120 / 47.2	19	Leech Full	BBE19160-120F BBE19160-120C	BBE19180-120F BBE19180-120C	BBE19200-120F BBE19200-120C	BBE19230-120F BBE19230-120C	BBE19265-120F
140 / 55.1	19	Leech Full	BBE19160-140F BBE19160-140C	BBE19180-140F BBE19180-140C	BBE19200-140F BBE19200-140C	BBE19230-140F BBE19230-140C	BBE19265-140F
160 / 63	19	Leech Full		BBE19180-160C	BBE19200-160F BBE19200-160C	BBE19230-160F BBE19230-160C	BBE19265-160F
180 / 70.9	19	Leech Full			BBE19200-180F BBE19200-180C	BBE19230-180F BBE19230-180C	BBE19265-180
210 / 82.7	19	Leech Full			BBE19200-210C	BBE19230-210F BBE19230-210C	BBE19265-210F
240 / 94.5	19	Leech Full				BBE19230-240F BBE19230-240C	BBE19265-240F
270 / 106.3	19	Leech Full				BBE19230-270F BBE19230-270C	BBE19265-270F
300 / 118.1	19	Leech Full				BBE19230-300F BBE19230-300C	BBE19265-300F
360 / 141.7	19	Leech Full				BBE19230-360F BBE19230-360C	BBE19265-360F BBE19265-360C
				APPLICATION	CHART		
35' Fı	action	al		1	2/3	4	
35' M	asthea	ıd	1	2	3	4	
40' Fı	action	al			1	2	3 / 4
40' M	asthea	ıd		1	2	3	4
50' Fı	action	al					1
50' M	asthea	ıd				1	2
	n Profile al size						





RBS Tapered Yachting Battens < 27

RBS E-Glass Tapered Yachting Battens 19 mm and 25 mm

MEDIUM	STIF	F	>	>	>	>	VERY STIF
L (cm/in) V	N (mn	n) Type	.300" / 7.6 mm	.350" / 8.9 mm	.400" / 10 mm	.400" / 12 mm	.500" / 12.7 mm
80 / 31.5	19	Leech Full	BBE19300-80F BBE19300-80C				
90 / 35.4	19	Leech Full	BBE19300-90F BBE19300-90C				
100 / 39.4	19	Leech Full	BBE19300-100F BBE19300-100C				
110 / 43.3	19	Leech	BBE19300-110F				
120 / 47.2	19	Leech Full	BBE19300-120F BBE19300-120C	BBE19350-120F			
140 / 55.1	19	Leech Full	BBE19300-140F BBE19300-140C	BBE19350-140F			
160 / 63	19	Leech Full	BBE19300-160F BBE19300-160C	BBE19350-160F	BBE19400-160F		
180 / 70.9	19	Leech Full	BBE19300-180F BBE19300-180C	BBE19350-180F BBE19350-180C	BBE19400-180F BBE19400-180C		
210 / 82.7	19	Leech Full	BBE19300-210F BBE19300-210C	BBE19350-210F BBE19350-210C	BBE19400-210F BBE19400-210C		
240 / 94.5	19	Leech Full	BBE19300-240F BBE19300-240C	BBE19350-240F BBE19350-240C	BBE19400-240F BBE19400-240C		
270 / 106.3	19	Leech Full	BBE19300-270F BBE19300-270C	BBE19350-270F BBE19350-270C	BBE19400-270F BBE19400-270C		
300 / 118.1	19	Leech Full	BBE19300-300F BBE19300-300C	BBE19350-300F BBE19350-300C	BBE19400-300F BBE19400-300C		
360 / 141.7	19	Leech Full	BBE19300-360F BBE19300-360C	BBE19350-360F BBE19350-360C	BBE19400-360F BBE19400-360C		
420 / 165.4	19	Leech Full	BBE19300-420F BBE19300-420C	BBE19350-420F BBE19350-420C	BBE19400-420F BBE19400-420C		
480 / 189.0	19	Leech Full	BBE19300-480F BBE19300-480C	BBE19350-480F BBE19350-480C	BBE19400-480F BBE19400-480C		
	25	Leech Full				BBE25400-480F BBE25400-480C	
540 / 212.6	19	Leech Full		BBE19350-540F BBE19350-540C	BBE19400-540F BBE19400-540C		
	25	Leech Full					BBE25500-5406
600 / 236.2	19	Leech Full		BBE19350-600F BBE19350-600C	BBE19400-600F BBE19400-600C		
				APPLICATION (CHART		
50' Fra	action	al		2	3		
50' Ma	asthea	d		3	4		
60' Fra	action	al			1 / 2	3	
60' Ma	asthea	d			1	2	
Batten (actua	Profile al size						

Top = 1, Upper Middle = 2, Lower Middle = 3, Bottom = 4

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



28 > RBS Carbon Battens & Caps

RBS Carbon Tapered Battens

STIFF			>	>	>	VERY STIFF
L (cm/in)	W (mm)	Туре	.300" / 7.6 mm	.360" / 9 mm	.400" / 10 mm	.460" / 12 mm
90 / 35.4	15 19	Leech Leech		BBC15360-90F BBC19360-90F		
120 / 47.2	15	Leech		BBC15360-120F		
	19	Leech		BBC19360-120F		BBC19460-120F
180 / 70.9	10	Full	BBC10300-180C			
	15	Leech		BBC15360-180F		
	19	Full		BBC19360-180C		
220 / 86.6	10	Full	BBC10300-220C			
	15	Leech Full		BBC15360-220F BBC15360-220C		
	19	Leech Full		BBC19360-220F BBC19360-220C		
240 / 94.5	15	Leech Full		BBC15360-240F BBC19360-240C		
300 / 118.1	10	Full	BBC10300-300C			
	15	Leech Full		BBC15360-300F BBC15360-300C		
	19	Leech Full		BBC19360-300F BBC19360-300C		BBC19460-300F
360 / 141.7	10	Full	BBC10300-360C			

RBS 10 mm & 15 mm Batten Leech End Caps





PART	DESCRIPTION	WIDTH	FITS RBS BATTENS	QTY/PKG	ORDER BY
BC10120-140	Leech Cap	10 mm	2.3 mm - 3.6 mm	50	Each
BC10160-180	Leech Cap	10 mm	4.1 mm / 4.6 mm	50	Each
BC10200	Leech Cap	10 mm	5 mm	50	Each
BC1090-100	Leech Cap	10 mm	5.8 mm	50	Each
BC15160-180	Leech Cap	15 mm	4.1 mm / 4.6 mm	50	Each
BC15200	Leech Cap	15 mm	5 mm	50	Each
BC15265	Leech Cap	15 mm	6.7 mm	50	Each
BC15300	Leech Cap	15 mm	7.6 mm	50	Each

RBS 19mm & 25 mm Batten Leech End Caps



TACIO
CHALLENGE AILCLOTH HARDWARE

PART	DESCRIPTION	WIDTH	FITS RBS BATTENS	QTY/PKG	ORDER BY
BC19160-180	Leech Cap	19 mm	4.1 mm / 4.6 mm	50	Each
BC19200	Leech Cap	19 mm	5 mm	50	Each
BC19230	Leech Cap	19 mm	5.8 mm	50	Each
BC19265	Leech Cap	19 mm	6.7 mm	50	Each
BC19300	Leech Cap	19 mm	7.6 mm	50	Each
BC19350	Leech Cap	19 mm	8.9 mm	50	Each
BC19400	Leech Cap	19 mm	10 mm	50	Each
BC25400	Leech Cap	25 mm	10mm	50	Each

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

RBS Tensioners & Sets

RBS Rocket Tensioners

Developed for a clean, easy way to tension both flex and compression battens. Never lose a batten out of the pocket again! Designed to be used with a loop webbing system. Batten should be trimmed 1.75" / 40 mm from the finished length for the tensioner to work properly. Tensioner screw should be backed off .5" / 13 mm to place loops on and off. With a 1.5" / 38 mm screw there is approximately 1" / 25 mm of adjustment.

PART	DESCRIPTION	BATTEN SIZE	ORDER BY
BT10230T	RBS Rocket Tensioner	10 mm x 5.8 mm	Each
BT15300T	RBS Rocket Tensioner	15 mm x 7.6 mm	Each
BT19265T	RBS Rocket Tensioner	19 mm x 6.7 mm	Each
BT19350T	RBS Rocket Tensioner	19 mm x 8.9 mm	Each



RBS E-Glass One-Design Sets

RBS one-design sets make it convenient to pick the right batten set for many popular one-design classes. Sets have been selected with in-put from leading one-design sailmakers with attention to class rules. Please note that when there is a variation in batten lengths, sets are built to the longest possible length.

PART	DESCRIPTION	BATTENS/SET	ORDER BY
BCSCOW	C-Scow Mainsail Set	4	Set
BCAL20	Cal 20 Mainsail Set	4	Set
BESCOW	E-Scow Mainsail Set	4	Set
BESCOWJ	E-Scow Jib Set	3	Set
BINTERLAKE	Interlake Mainsail Set	3	Set
BJ22-MAIN	J-22 Mainsail Set	4	Set
BJ24-M	J-24 Mainsail Set	5	Set
BLIGHTNING	Lightning Mainsail Set	3	Set
BLIGHTN-JIB	Lightning Jib Set	2	Set
BBEMELGES	Melges 24 Mainsail Set	4	Set
BMCSCOW	MC Scow Mainsail Set	4	Set
BSTAR	Star Mainsail Set	5	Set
	Star Jib	3	Set
BTHISTLE	Thistle Mainsail Set	4	Set
BXBOAT	X-Boat Mainsail Set	3	Set
	X-Boat Jib Set	2	Set



Rutgerson Roller Battens

Stainless steel spring encased in a woven polyester cover.

PART	DESCRIPTION	WIDTH MM / IN	MAX BATTEN MM / IN	MAX BATTEN GR / OZ	BOAT SIZE FT
BR34103	Roller Batten	40 / 1.58	300 / 11.81	53 / 1.87	< 32
BR34104	Roller Batten	40 / 1.58	400 / 15.75	70 / 2.47	< 32
BR34105	Roller Batten	40 / 1.58	500 / 19.68	87 / 3.07	< 32
BR35105	Roller Batten	50 / 1.97	500 / 19.68	118 / 3.07	30 – 40
BR35106	Roller Batten	50 / 1.97	600 / 23.62	145 / 5.11	30 - 40
BR35107	Roller Batten	50 / 1.97	700 / 27.56	166 / 5.86	30 - 40
BR37107	Roller Batten	70 / 2.76	700 / 27.56	235 / 8.29	37+
BR37108	Roller Batten	70 / 2.76	800 / 31.50	270 / 9.52	37+
BR37109	Roller Batten	70 / 2.76	900 / 35.43	305 / 10.76	37+





30 >

Rutgerson Batten Hardware



Left: Self-lubricating slide, with a simple, durable fitting method, Rutgerson's new battcars also reduce wear thanks to their small size and rounded design. The geometry has been calculated to distribute strain evenly, which minimizes the risk of the traveller jamming.

Rutgerson Full Batten System

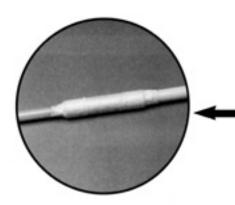
This connecting concept enables different dimensions and different lengths in one and the same battenpocket in order to give a better shape to the sail. Connected battens also greatly facilitate transport and winter storage. Rutgerson's new battcars can also be used with flat battens using an adapter.

As an alternative attachment solution on the leech, Rutgerson has produced an end cap intended for sails with webbing. They can be attached in the conventional way into a pocket, but also provide a whole new and easier fitting solution: the webbing is sewn directly onto the sail then fitted to the endcap by threading it through a slot. Simple and economical.



Top Right: Rutgerson's battcars can also be used with flat battens using an adapter. In this way even older sails, can benefit from the advantages offered by the battcars.

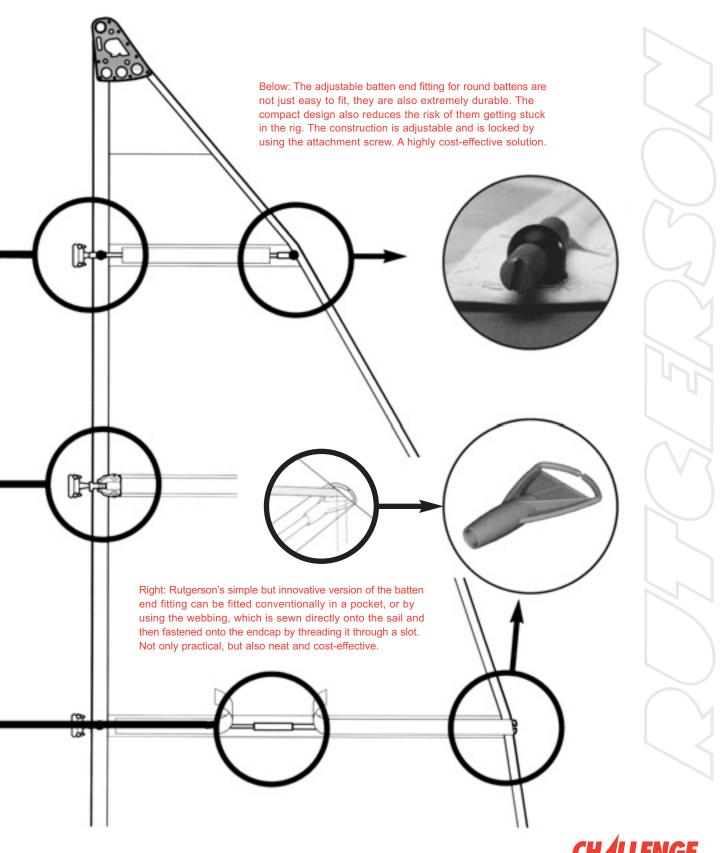
Bottom Right: The connectors make it possible to fit different lengths and dimensions of round battens in one and the same battenpocket. This solution is easy to handle, protects the sail and greatly increases flexibility.





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Rutgerson Batten Hardware < 31



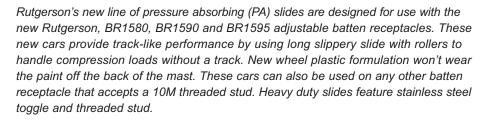
CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



32 > Full Batten Systems

Rutgerson Batten Cars

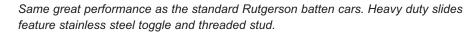




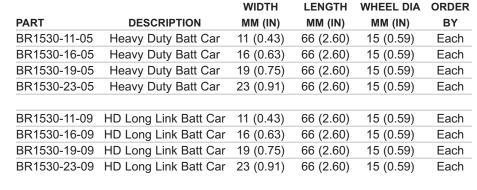


		WIDTH	LENGTH	WHEEL DIA	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	MM (IN)	BY
BR1530-11-04	Standard Batten Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-04	Standard Batten Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1530-19-04	Standard Batten Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1530-23-04	Standard Batten Car	23 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-11-08	Long Link Batten Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-08	Long Link Batten Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1530-19-08	Long Link Batten Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1530-23-08	Long Link Batten Car	23 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-11-10	Web-On Batten Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-10	Web-On Batten Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1530-19-10	Web-On Batten Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1530-23-10	Web-On Batten Car	23 (0.91)	66 (2.60)	15 (0.59)	Each

Rutgerson Heavy Duty Batten Cars









^{*} BR1530-11 fits Selden & Kemp masts.

^{*} BR1530-23 fits #8 metal mast slides.



^{*} BR1530-19 fits #6 metal mast slides.

Adjustable Batten Receptacles

Rutgerson Headboard Cars

New Rutgerson headboard cars finish off a great system! Special design uses a stainless steel carriage to spread load over two Rutgerson batten cars for less friction and smoother operation.

PART	DESCRIPTION	FITS CAR SIZE	ORDER BY
BR1100-211	Headboard Car	11 mm	Each
BR1100-216	Headboard Car	16 mm	Each
BR1100-219	Headboard Car	19 mm	Each
BR1100-223	Headboard Car	23 mm	Fach



Rutgerson Adjustable Batten Receptacles

Rutgerson's new adjustable fitting for flat battens makes it simple to adjust batten tension. These durable receptacles are constructed of a special fiberglass reinforced plastic making them light weight, strong, and UV stable. Each receptacle is designed to facilitate front batten loading eliminating the need for bulky leech hardware.

The BR1590 also features a window with adjustment scale for repeatable compression settings. Attaches to batten car via 10M threaded shaft. Swiveling adjuster arm allows for easy front loading of battens with sail on boom. Works great on boats from 30 to 50 feet. Each set includes receptacle, backing plate, and six stainless torx screws.

PART	DESCRIPTION	COLOR	MAX WIDTH	MAX THCK	BOAT SIZE	ORDER BY
BR1580	Sm Batten Receptacle	Black	25/32"	3/8"	25' – 36'	Each
				(dia)		
BR1590	Lg Batten Receptacle	Black	1 1/2"	1/4"	33' – 50'	Each
BR1595	Heavy Duty	Black	63/64"	13/32"	33' – 50'	Each





Rutgerson Adjustable Receptacle Spare Parts

PART	DESCRIPTION	FITS BTN RCPT	ORDER BY
BR14-0004	Adjustable Screw	BR1590, BR1595	Each
BR14-0063	Lock Screw	BR1590, BR1595	Each
BR14-0064	Assembly Screw	BR1590, BR1595	Each
BR14-0008	Sliding Hatch	BR1590, BR1595	Each
BR14-0007	Tension Arm	BR1590, BR1595	Each



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Fork Fitting Batten Cars

Rutgerson Fork Fitting Batten Cars



Rutgerson's line of fork fitting pressure absorbing slides are designed for use with their BR1490-1 receptacles. Due to consistency in design and manufacturing, older BR1490 and BR1500 series receptacles can be quickly retrofitted to use these new batten cars. Plastic wheels are specially formulated not to wear or mark the mast. Wheel pins are recessed to eliminate chafe on sail.

		WIDTH	LENGTH	WHEEL DIA	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	MM (IN)	BY
BR1530-11-03	Fork Fitting Batt Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-03	Fork Fitting Batt Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1530-19-03	Fork Fitting Batt Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1530-23-03	Fork Fitting Batt Car	23 (0.91)	66 (2.60)	15 (0.59)	Each

Rutgerson Heavy Duty Stainless Steel Link Cars



Heavier-duty version of Rutgerson's popular fork fitting batten cars features full toggle mechanism made with stainless steel components to handle heavier loads.

		WIDTH	LENGTH	WHEEL DIA	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	MM (IN)	BY
BR1530-11-15	HD SS Link Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-15	HD SS Link Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1530-19-15	HD SS Link Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1530-23-15	HD SS Link Car	23 (0.91)	66 (2.60)	15 (0.59)	Each

Rutgerson Batten Receptacle for Fork Fitting Cars



This economical batten receptacle accepts both round and flat battens and is designed to be used in conjunction with Rutgerson's new pressure absorbing slides with fork fitting (BR1530-XX-03, see above). Each set includes mounting hardware. Does not include shackle.

			MAX WIDTH	MAX DIA	ORDER
PART	DESCRIPTION	COLOR	(FLAT)	(ROUND)	BY
BR1490-1	Batten Receptacle	White	45 mm (1 3/4")	12 mm (1/2")	Sets
BR1490-1G	Batten Receptacle	Grey	45 mm (1 3/4")	12 mm (1/2")	Sets

Rutgerson Small Boat Roller Cars



The new refined style of Rutgerson's small boat roller cars make them a perfect full batten slide for smaller boats or a durable intermediate slide on many small to medium sized boats. Use with Rutgerson's batten pocket end fitting (BR1490) or webbing.

		WIDTH	LENGTH	WHEEL DIA	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	MM (IN)	BY
BR1525-11	Small Boat Roller Car	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1525-16	Small Boat Roller Car	16 (0.63)	66 (2.60)	15 (0.59)	Each
BR1525-19	Small Boat Roller Car	19 (0.75)	66 (2.60)	15 (0.59)	Each
BR1525-23	Small Boat Roller Car	23 (0.91)	66 (2.60)	15 (0.59)	Each



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Rutgerson Batten Cars For Round Battens

This version of Rutgerson's pressure absorbing slides is designed for round battens without the bulk of adding a batten receptacle. Machined aluminum stud attaches to luff via a stainless Super Ring (see page 76). See page 12 for batten connectors.

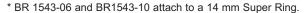
		WIDTH	LENGTH	WHEEL DIA	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	MM (IN)	BY
BR1530-11-01	Car for Round Batten	11 (0.43)	66 (2.60)	15 (0.59)	Each
BR1530-16-01	Car for Round Batten	16 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-19-01	Car for Round Batten	19 (0.91)	66 (2.60)	15 (0.59)	Each
BR15322-23-01	Car for Round Batten	23 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-11-02	Car for Round Batten	11 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-16-02	Car for Round Batten	16 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-19-02	Car for Round Batten	19 (0.91)	66 (2.60)	15 (0.59)	Each
BR1530-23-02	Car for Round Batten	23 (0.91)	66 (2.60)	15 (0.59)	Each



Rutgerson Adjustable Leech End Batten End Fittings

This round batten leech receptacle attaches to a stainless Super Ring (see page 76) for a quick and easy installation. The threaded aluminum receptacle allows for full compression adjustment and locks into place with an allen set-screw.

			FITS BATTEN DIA	ORDER
PART	DESCRIPTION	COLOR	MM (IN)	BY
BR1543-06	Adj Leech End Fitting	Black	4 - 6 (0.16 - 0.24)	Each
BR1543-10	Adj Leech End Fitting	Black	8 - 10 (0.31 - 0.39)	Each
BR1543-13	Adj Leech End Fitting	Black	13 (0.50)	Each
BR1543-16	Adj Leech End Fitting	Black	16 (0.63)	Each



^{*} BR 1543-13 and BR1543-16 attach to a 14 mm Super Ring.





Rutgerson Batten Receptacle

Rutgerson's economical batten pocket end fitting. The 1490 accepts both round and flat battens, and can be used with conventional slides, Rutgerson's original pressure absorbing slides, or their new small boat roller cars (next page). Can be quickly converted to accept the new 1530 fork-style slides as well. Use these receptacles as standard receptacle now...upgrade later! Includes mounting hardware and shackle.

			MAX WIDTH	MAX DIA	ORDER
PART	DESCRIPTION	COLOR	(FLAT)	(ROUND)	BY
BR1490	Batten Receptacle	White	1 3/4"	1/2"	Sets
BR1490-G	Batten Receptacle	Grey	1 3/4"	1/2"	Sets







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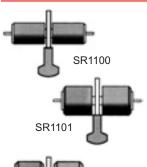
^{*} BR1530-XX-01 for battens up to 6 mm. BR1530-XX-02 for battens up to 10 mm.

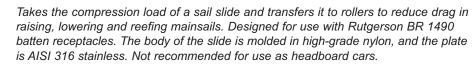
^{*} BR 15314 and BR 15 attach to sail with 14 mm Super Ring.

^{*} BR 153194 and BR 15324 attach to sail with 20 mm Super Ring.

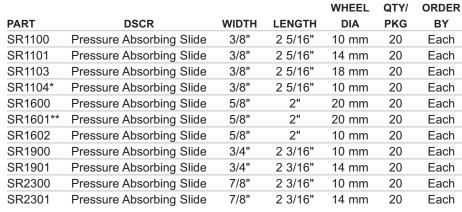
36 > Pressure Absorbing Slides

Rutgerson Pressure Absorbing Slides

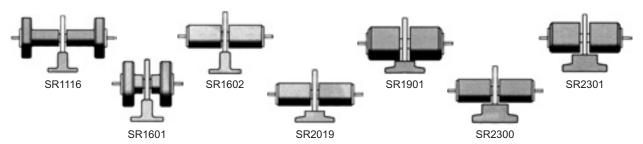








^{*} Wheels set at a 20 degree angle. **Narrow wheelbase.



Tye-Tec Round Batten Receptacles



New Tye-Tec full-batten receptacles offer a light, strong and streamlined approach to full batten systems. Made of high-grade anodized aluminum, these receptacles are large enough to fit the full range of Blue Streak and RBS battens. Accepts all full batten slides with 10 mm or 12 mm thread studs.

OPDEP



		NOSE	DALLEN	LIIO	OKDEK
PART	DESCRIPTION	THREAD	DIA	BOAT	BY
Luff Recep	otacles				
BT11014	Round Luff Recept	10 mm	8 mm – 14 mm	up to 48'	Each
BT11020	Round Luff Recept	10 mm	16 mm – 20 mm	up to 60'	Each
BT11214	Round Luff Recept	12 mm	8 mm – 14 mm	up to 48'	Each
BT11220	Round Luff Recept	12 mm	16 mm – 20 mm	up to 60'	Each
Leech Adj	usters				
BT10014	Round Leech Adj		8 mm – 14 mm	up to 48'	Each
BT10020	Round Leech Adj		16 mm – 20 mm	up to 60'	Each
BT10025	Round Leech Adj		18 mm – 25 mm	up to 60'	Each



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Tye-Tec Batten Receptacles < 37

Tye-Tec Flat Batten Receptacles

New Tye-Tec full-batten receptacles offer a light, strong and streamlined approach to full batten systems. Made of high-grade anodized aluminum, these receptacles are large enough to fit the full range of Blue Streak and RBS battens. Accepts all full batten slides with 10 mm or 12 mm thread studs.

PART	DESCRIPTION	NOSE THREAD	BATTEN SIZE	FITS BOAT	ORDER BY		
Luff Recepta		INCAD	SIZE	DUAI	БТ		
BT11021	Flat Luff Recept	10 mm	20 mm x 10 mm	up to 48'	Each		
BT11031	Flat Luff Recept	10 mm	30 mm x 10 mm	up to 60'	Each		
BT11221	Flat Luff Recept	12 mm	20 mm x 10 mm	up to 48'	Each		
BT11231	Flat Luff Recept	12 mm	30 mm x 10 mm	up to 60'	Each		
Leech Tensioners							
BT12010	Flat Leech Tens		20 mm x 10 mm	up to 48'	Each		
BT13010	Flat Leech Tens		30 mm x 10 mm	up to 60'	Each		



Tye-Tec Batten Reduction Sleeves

Precision sized plastic reduction sleeves. Use with round batten receptacles to remove play in the batten adjuster, greatly reducing wear and tear on both batten and adjuster.

PART	DESCRIPTION	FITS BTN	ORDER BY
BT51408	Batten Reduction Sleeve	8 mm	Each
BT51410	Batten Reduction Sleeve	10 mm	Each
BT51412	Batten Reduction Sleeve	12 mm	Each
BT52414	Batten Reduction Sleeve	14 mm	Each
BT52416	Batten Reduction Sleeve	16 mm	Each
BT52418	Batten Reduction Sleeve	18 mm	Each
BT53418	Batten Reduction Sleeve	18 mm	Each
BT53420	Batten Reduction Sleeve	20 mm	Each



Tye-Tec Replacement Leech Adjuster Screws

Threaded compression adjuster screws have an anodized aluminum body. Flat batten adjuster screws use a stainless steel locking screw while round batten adjusters screws use a plastic locking screw. Choose between 5/8", 7/8" and 1 1/8" sizes.

PART	DESCRIPTION	SIZE	FIT ADJ	ORDER BY
BT100145	Round Leech Adj Screw	5/8"	BT10014	Each
BT100205	Round Leech Adj Screw	7/8"	BT10020	Each
BT100255	Round Leech Adj Screw	1 1/8"	BT10025	Each
BT120105	Flat Leech Adj Screw	5/8"	BT12010	Each
BT130105	Flat Leech Adj Screw	3/4"	BT13010	Each







CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

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Battslide Products

Battslide and Slide Boss Products

SIDE VIEW
AS SAIL IS HOISTED

SAIL
WEBBING CAUSES SLIDES
TO ROCK IN TRACK & BIND

BATTSLIDE® and Slide Boss™ sail luff hardware can dramatically improve the hoisting and lowering of conventional or full batten sails without the expense or weight of add-on track. Since their introduction in 1987, Battslide products have been used on thousands of boats and for countless ocean passages. The vast majority of installations are on normal cruising and daysailing boats ranging in length from 23 ft. (7 meters) to 55 ft. (17 meters).

Battslide products also have proven themselves on the racing circuit. They have been aboard Volvo and America's Cup winners as well as numerous other high-profile racers. Bruce Schwab placed first overall in the Single-handed TransPac race from San Francisco to Kauai aboard his highly-customized 30 Square Meter sloop Rumbleseat. The boat's mainsail has full-length battens with the proven 103 Midi Nylon Battslides operating in the existing mast track.

Solving Hoisting and Lowering Problems

The Battslide line includes three categories of sail luff hardware: (1) three-axis head-board slide systems, (2) Slide Boss™ pivoting sail slide mounts, and (3) Battslide® full batten sail hardware.

To understand how these products can make sail handling easier, it is necessary to examine the causes of hoisting and lowering problems. Whether you have a conventional or full batten sail, some or all of the slides may be attached with webbing. Figures 1 and 2 show the two principal ways webbed-on slides can bind and cause sail handling problems. These problems can occur to all slides on both conventional and full batten sails. If you have a full batten sail, the problems can be further exacerbated by the battens. Figure 3 illustrates one of several ways webbed-on sail slides at the batten ends can cause problems.

Battslide® sail luff hardware solves all of the illustrated problems by providing threeaxis articulation for each slide. This decouples the slides from the motion of the sail and/or battens and permits the slides to do their job. For example, note in the photo below how the Slide Bosses permit the sail to fold easily and hang down without binding the slides. Our headboard fittings and Battslides provide the same benefits.

SAIL

AFT VIEW

AS SAIL IS LOWERED

FIGURE 2

WHEN SAIL FLAKES, SLIDES TWIST & BIND

Use a Complete System

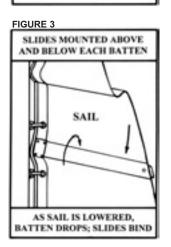
If you have a conventional sail, you will want to specify a Battslide headboard slide system and use Slide Bosses on the remaining slides. If you have a full batten sail, we encourage you to use the above two items plus Battslides at the batten ends. It is important to use a complete system to achieve maximum benefit.

Is an Add-on Track Really Necessary?

Although manufacturers of sail luff hardware systems that feature add-on track have implied that these systems are essential, Battslide customers tell them that their strong, simple slide systems provide 70% to 80% of the efficiency of the more complex systems, but at 1/3 to 1/4 of the cost! Moreover, Battslide systems add very little weight aloft compared to those that require add-on track.



There are situations, particularly on larger boats, where add-on track is essential, however. In these cases, many sailmakers prefer to use the proven Battslide receptacles with another manufacturer's cars and track. Battslide receptacles work with Harken, Antal, Frederiksen and Strong systems.



Battslide is a registered trademark of Schaefer Marine, Inc.

Slide Boss is a trademark of Schaefer Marine, Inc.



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Battslide Products

Selecting and Ordering Battslide® Luff Hardware

Selecting Based on Boat Size

The length and type of the boat, which often is a rough indication of sail area and power, is the main factor in determining which product line to select. The table below provides a rough selection guide for different boat lengths. In cases of doubt, it is usually better to select the next larger luff hardware product line.

Selecting the Proper Slide

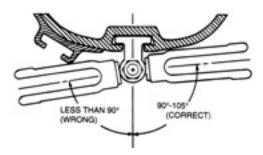
First, note the type of mast track tie: (round internal, flat internal, external etc.). Next, measure the dimensions of the track. Then, see if the appropriate type and size of slide is available in the luff hardware product family you have selected. For internal tracks, either round or flat, the best slide is the largest size that will fit into the track and still slide freely. Undersize slides can wear prematurely and/ or cause damage to the sail track. Do not use undersize slides!

Selecting Batten Receptacles If Sail Has Full Length Battens

Essentially, there are two configurations of battens: (1) flat (including low profile diamond shapes and so-called tri-hull battens), and (2) round. In the product family you have selected based on boat size, check to see which batten receptacles will accept the type and size of battens particular to your application. Next, determine whether the battens will be loaded into the sail from the leech or the luff end. In all of the the product lines, certain batten receptacles allow the batten to be loaded from the luff end. These receptacles also have batten compression (cloth tension) adjustment mechanisms, which permit the leech to be free of bulky hardware that can get hung up on a backstay.

Assuring Adequate Athwartship Movement

It is important that Battslide batten receptacles be able to swing freely at least 90 degrees (and preferably up to 105 degrees) to both sides of the boat centerline. Refer to the figure at the right. Storm trysail tracks, in particular, can inhibit adequate movement. If the receptacle cannot pivot enough, custom slides may be required, please inquire. It is particularly important on boats with free standing (unstayed) rigs that the maximum athwartship movement be possible, because on these rigs the upper battens can rotate well past 90 degrees, especially on sustained runs in heavy weather.



BATTSLIDE FULL BATTEN SYSTEMS FOR BOATS 20 - 50 FT

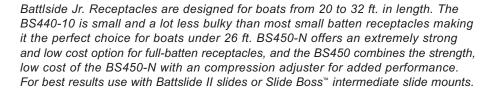
Boat Length	Batten Type	Batten Receptacle	Batten Slides	Intermediate Slides	Headboard Plate
20 – 26 ft	Flat	BS440-10	Conventional	BS889	BS844
26 – 32 ft	Flat	BS450-10 or BS450N	Battslide II	BS889	BS844
32 – 50 ft	Flat	BS401-10	Battslide II	BS889	BS844
32 – 50 ft	Round	BS301-10	Battslide II	BS889	BS844

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Battslide Jr.™ Plastic Receptacles





MAX

ORDER

ORDER

BY

INSET

DEPTH*



			III/A/A	OINDLIN
PART	DESCRIPTION	COLOR	BATTEN SIZE	BY
BS440-10	Non-Adj Receptacle	Black	0.63" x 0.28" (16 x 7 mm) flat	Each
BS450-N	Non-Adj Receptacle	Black	1.6" x 0.2" (40 x 5 mm) flat	Each
			0.5" (13 mm) round	
BS450-10	Adj Receptacle	Black	1.6" x 0.2" (40 x 5 mm) flat	Each
			0.5" (13 mm) round	



Battslide Magic Shackle and Connector Shaft

For use on boats with plastic slides up to 26 ft.

DESCRIPTION



		MAIERIAL	ORDER
PART	DESCRIPTION	STUD / SHKL	BY
BS466	Magic Shackle & Connector Shaft	Aluminum / Stainless	Each

Battslide II[®] Receptacles

PART



The Battslide II product line is a heavy-duty but light weight full batten system for boats 32 to 50 ft. in length. It is intended to be a cost-effective alternative to expensive car-and-track systems, providing 70 to 80% of their efficiency but at 1/3 to 1/4 the cost. The Battslide II system also adds very little weight aloft since it operates on your existing track. Both of the receptacles styles are proven, and feature a patented batten compression adjuster. Use with Battslide II slides (next page). Choose between 10 mm or 12 mm nose thread.



1711	DECORUM MON	***************************************	DE1 111	D .
BS301-10	Battslide II Receptacle	0.8" (round)	5 3/4"	Each
BS301-12	Battslide II Receptacle	0.8" (round)	5 3/4"	Each
BS401-10	Battslide II Receptacle	1 5/8" (flat)	5 1/2"	Each
		or 1/2" (round)	or 6 3/8"	
BS401-12	Battslide II Receptacle	1 5/8" (flat)	5 1/2"	Each
		or 1/2" (round)	or 6 3/8"	

^{*} The inset depth is the distance which the receptacle protrudes into the sail in a typical installation.



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MAX BTN

WIDTH

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Battslide II[®] Slides

Battslide II slides distribute load evenly over the length of slides to increase effective surface area and reduce friction. Flat and slug slides feature special Nylatron slides, and BS752 features all stainless construction. All slides have 10 mm stainless stud.

PART	DSCR	SLIDE SIZE	SLIDE TYPE	SLIDE MATERIAL	WDTH	тнск	WAIST	ORDER BY
BS752	Btsld II Sld	7/8"	External	Stainless	0.83"	0.07"	0.46"	Each
D0004	D: 11 !! O! !	411			0.00"	0.001	0.40"	
BS801	Btsld II Sld	1"	Flat	Nylatron	0.98"	0.20"	0.46"	Each
BS802	Btsld II Sld	8 mm	Flat	Nylatron	0.90"	0.15"	0.46"	Each
BS803	Btsld II Sld	7/8"	Flat	Nylatron	0.85"	0.18"	0.46"	Each
BS804	Btsld II Sld	3/4"	Flat	Nylatron	0.72"	0.13"	0.42"	Each
BS865	Btsld II Sld	5/8"	Flat	Nylatron	0.61"	0.12"	0.38"	Each
BS831	Btsld II Sld	Dee	p Slug	Nylatron	0.385"			Each
BS833	Btsld II Sld	Shall	ow Slug	Nylatron	0.385"			Each
D0004	1.00000 :11.0			11 0 0011 1	4 (011)			



BS752



BS801

[•] BS831 and BS833 will fit waisted bail and slug slides 3/8" to 1/2" in diameter.



Battslide Headboard Hardware Systems

For medium-duty applications use Battslide II nylatron mast slides (see above).

PART	DESCRIPTION	MATERIAL	ORDER BY
BS844	Headboard Plate	Stainless	Each



Slide Boss Intermediate Attachments for Battslide Systems

For use with original Battslide and Battslide II systems. Stainless steel shackle for use with heavy-duty slides.

PART	DESCRIPTION	SIZE	MATERIAL	ORDER BY
BS889	Slide Boss Int Attachment	10 mm	Stainless	Each

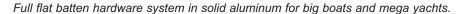


CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



42> Battslide Hardware

Battslide Big Boat and Mega Yacht Hardware Systems





PART	DESCRIPTION	MAX BTN MM	THREAD MM	RCPT IN (MM)	WGT LB (KG)	ORDER BY
BS3200-10	Mega Receptacle	32 x 12	10	3 x 7.25	1.1	Each
BS3200-12	Mega Receptacle	32 x 12	12	(76 x 184)	(0.5)	Each
BS4500-12	Mega Receptacle	45 x 15	12	3.5 x 9.5	2.1	Each
BS4500-14	Mega Receptacle	45 x 15	14	(89 x 241)	(1.0)	Each
BS6000-14	Mega Receptacle	60 x 18	14	4.5 x 11.75	4.2	Each
BS6000-16	Mega Receptacle	60 x 18	16	(114 x 300)	(1.9)	Each

Battslide Big Boat and Mega Yacht Batten Receptacles

These receptacles are designed to be compatible with many of today's popular mast track systems. They are attached to the mast track system via a clevis pin.



		MAX BTN	THREAD	RCPT	ORDER
PART	DESCRIPTION	WIDTH	SIZE	IN (MM)	BY
BS351-10	Mega Receptacle	1.0" (flat)	10 mm	3.05 x 8.3	Each
BS351-12	Mega Receptacle	1.0" (flat)	12 mm	(77 x 216)	Each
BS382-12	Mega Receptacle	1.25" (flat)	12 mm	3.72 x 11.73	Each
BS382-14	Mega Receptacle	1.25" (flat)	14 mm	(94 x 296)	Each

Battslide Round Batten Sleeve Adaptors



Round batten adaptors take up the slack and eliminate play between the batten and the receptacle thus reducing batten fatigue and breakage. Match sleeve to batten size and receptacle. Special order items: please allow appropriate lead time.

PART	DESCRIPTION	FITS BTN	FITS RCPT	ORDER BY
For Use	With BS301 Receptacles			
BS020	Rnd Btn Sleeve Adaptor	9/16" & 5/8"	BS301	Each
BS021	Rnd Btn Sleeve Adaptor	7/16" & 1/2"	BS301	Each
BS022	Rnd Btn Sleeve Adaptor	5/16" & 3/8"	BS301	Each
For Use	With BS351 Receptacles			
BS051	Rnd Btn Sleeve Adaptor	13/16" & 7/8"	BS351	Each
BS052	Rnd Btn Sleeve Adaptor	11/16" & 3/4"	BS351	Each
BS053	Rnd Btn Sleeve Adaptor	9/16" & 5/8"	BS351	Each
BS054	Rnd Btn Sleeve Adaptor	7/16" & 1/2"	BS351	Each
For Use	With BS382 Receptacles			
BS082	Rnd Btn Sleeve Adaptor	7/8" & 1"	BS382	Each
BS083	Rnd Btn Sleeve Adaptor	11/16" & 3/4"	BS382	Each



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Battslide Spare Parts < 43

Battslide Spare Parts for 102, 103 and 104 Receptacles

PART	DESCRIPTION	ORDER BY
BS403004-01	Barrel Nut Set	Each
BS450023-10	Thin Spacer	Each
BS450023-15	Thick Spacer	Each
BS450046-01	Bushing for Stainless Battslides	Each
BS965002-01	Bushing for Aluminum Battslides	Each



BS403004-01



BS450023-XX



BS96500-01

Battslide Spare Parts for 301 Receptacles (BL, TL and ML)

PART	DESCRIPTION	ORDER BY
BS450064-10	Link Holder for BS301-10	Each
BS450064-12	Link Holder for BS301-12	Each
BS401008-01	Batten Adjuster Traveler	Each
BS51-257-01	Clevis Pin	Each
BS912002-01	Receptacle Screw	Each
BS920001-01	Batten Adjuster Bolt	Each
BS932001-01	Thin Nylock Nut (for BL Stud)	Each
BS937002-01	Nut for Batten Adjuster Bolt	Each
BS947001-01	Washer for Battlink-BL Stud	Each



S450064-XX



BS401008-01



S51-257-01



BS912002-01



S920001-01



BS932001-01



5937002-01



BS947001-01

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Battslide Spare Parts 44 >

PART

BS20-43

BS401011-01

BS450098-14

BS450098-12

BS450099-01

BS913003-01

BS912002-01

Battslide Spare Parts for 351 Receptacle

DESCRIPTION

Receptacle Nut

Batten Adjuster Traveler Arm

Link Holder for BS351-14

Link Holder for BS351-12

Receptacle Only (not shown)

Receptacle Screw

Receptacle Body Screw

ORDER BY

Each

Each

Each

Each

Each

Each

Each





BS-401011-01





BS450098-XX





0	63
00	9
BS912	002-01

Battslide Spare Parts for 450-10 Receptacles



BS450121-01



BS450122-01



BS450132-01



BS914001-01



BS916004-01



BS934001-01



BS911001-01

PART	DESCRIPTION	ORDER BY
BS450121-01	Receptacle Body	Each
BS450122-01	Backing Plate	Each
BS450132-01	Batten Adjuster Traveler	Each
BS914001-01	Receptacle Screw	Each
BS916004-01	Batten Adjuster Set Screw (allen)	Each
BS934001-01	Receptacle Nylock Nut	Each
BS911001-01	Receptacle Body Screw	Each



Battslide Spare Parts for 401 Receptacles (10, 12 and BL)

PART	DESCRIPTION	ORDER BY	
BS403014-01	Hardware Set (Fasteners)	Each	
BS450092-02	Link Holder for 401-10	Each	
BS450092-12	Link Holder for 401-12	Each	
BS913005-01	Barrel Nut	Each	9
BS914001-01	Receptacle Screw	Each	BS913005-
BS920006-01	Batten Traveler Adjuster Bolt	Each	
BS933001-01	Batten Adjuster Traveler	Each	BS920006-
BS934001-01	Receptacle Nylock Nut	Each	



BS450092-XX





BS914001-01







BS934001-01

Battslide Spare Parts for 885, 886 and 887 Attachments

PART	DESCRIPTION	ORDER BY		
BS450108-01	0108-01 Nylon Shackle for BS885			
BS450135-01	Stainless Shackle	Each		
BS911001-01	Slide Boss Body Screw	Each		
BS931001-01	Slide Boss Body Nylock Nut	Each		



BS450108-01



BS450135-01



BS912002-01



BS931001-01



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

Metal Mast Marine Slides

DESCRIPTION

#6 Nylon Slide

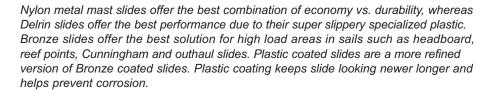
#8 Nylon Slide

PART

SMN6

SMN8





WIDTH

3/4"

7/8"

WAIST

3/8"

13/32"

QTY/PKG

100

100

ORDER BY

Each

Each



SMD6	#6 Delrin Slide	3/4"	3/8"	100	Each
SMD8	#8 Delrin Slide	7/8"	13/32"	100	Each



SMB6	#6 Bronze Slide	3/4"	13/32"	10	Each
SMB8	#8 Bronze Slide	7/8"	29/64"	10	Each



SMBP6	#6 Plastic Ctd Bronze Slide	3/4"	3/8"	10	Each
SMBP8	#8 Plastic Ctd Bronze Slide	7/8"	3/8"	10	Each

Nylon Internal Track Slides



Super narrow waists make these slides great for fitting hard to fit masts. Perfect for most narrow slotted in sail tracks.

PART	DESCRIPTION	WIDTH	WAIST	LENGTH	QTY/PKG	ORDER BY
SITN5	Nylon Internal Track Slide	5/8"	1/4"	1 1/4"	100	Each
SITN6	Nylon Internal Track Slide	3/4"	5/16"	1 5 /16"	100	Each
SITN7	Nylon Internal Track Slide	7/8"	21/64"	1 3/8"	100	Each

Stainless Steel Internal Track Slides



These slides are the strongest slide option for external track. Perfect for use in high-load areas such and headboards, reefs, Cunningham, and outhauls.

PART	DESCRIPTION	WIDTH	WAIST	LENGTH	QTY/PKG	ORDER BY
SITS5	SS Internal Track Slide	5/8"	1/4"	1 1/4"	10	Each
SITS6	SS Internal Track Slide	3/4"	1/4"	1 1/4"	10	Each
SITS7	SS Internal Track Slide	7/8"	1/4"	1 1/4"	10	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Plastic External Track Slides

Well designed for a strong tight fit. Slipperiness of plastic greatly improves performance and reduces jams. Note: Not recommend for use as headboard, reef or full batten slide.

PART	DESCRIPTION	TRACK SIZE	QTY/PKG	ORDER BY
SEP7	Plastic External Track Slide	7/8"	50	Each



Stainless Steel External Sail Slides

The strong reliable standard for external sail tracks. Attach with stainless shackles (see pg 55) for quick installation or webbing. For a more traditional look, hand sew using thimble model.

PART	DESCRIPTION	TRACK SIZE	QTY/PKG	ORDER BY
SE5	SS External Track Slide	5/8"	50	Each
SE7	SS External Track Slide	7/8"	50	Each
SE1	SS External Track Slide	1"	50	Each
SET5	SS Ext Track Slide w/Thimble	5/8"	50	Each
SET7	SS Ext Track Slide w/Thimble	7/8"	50	Each





Stainless Steel External Sail Tracks

All stainless track features 1/4" holes on 6" centers.

PART	DESCRIPTION	WIDTH	FT/LENGTH	ORDER BY
FSST5	SS Sail Track	5/8"	12'	Full Lengths
FSST7	SS Sail Track	7/8"	12'	Full Lengths



Plastic Coated Bronze Proctor Mast Slides

Strong bronze with heavy coated plastic to keep slides looking newer longer. Helps prevent corrosion. Great for headboards, reefs and outhaul slides.

		BASE		COAT	QTY/	ORDER
PART	DESCRIPTION	WIDTH	WAIST	COLOR	PKG	BY
SP7	Plst Ctd Bronze Proctor Slides	7/8"	1/2"	Black	10	Each
SP1	Plst Ctd Bronze Proctor Slides	1"	19/32"	Black	10	Each



Nylon Slug Slides with Stainless Steel Inserted Bail

Simple basic slug. Attach with webbing or stainless steel shackles (see pg 55). Designed for light to moderate loads.

					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SNSB5	Nylon Slug Slides w/SS Bail	5/16"	1/8"	1 5/64"	100	Each
SNSB6	Nylon Slug Slides w/SS Bail	3/8"	1/8"	1 5/64"	100	Each
SNSB7	Nylon Slug Slides w/SS Bail	7/16"	1/8"	1 3/32"	100	Each
SNSB8	Nylon Slug Slides w/SS Bail	1/2"	1/8"	1 3/32"	100	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Nylon Slug Slides with Internally Welded Stainless Bail and Plastic Rocker

The internally welded bail provides higher strength. Web or shackle on. Rocker helps prevent slide jams in vertical direction.



					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SNBR5	Nyl Slg Sld w/SS Bail/Plst Rck	5/16"	3/16"	1 5/32"	100	Each
SNBR6	Nyl Slg Sld w/SS Bail/Plst Rck	3/8"	3/16"	1 5/32"	100	Each
SNBR7	Nyl Slg Sld w/SS Bail/Plst Rck	7/16"	3/16"	1 5/32"	100	Each
SNBR8	Nyl Slg Sld w/SS Bail/Plst Rck	1/2"	3/16"	1 5/32"	100	Each

Nylon Slug Slides

Economical slug slide molded in tough nylon. Extremely narrow waist is a great option for narrow grooved masts.



					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SNS3	Nylon Slug Slides	3/8"	5/32"	7/8"	100	Each
SNS4	Nylon Slug Slides	1/2"	5/32"	1"	100	Each

All Plastic Slug Slides

All purpose slug slide features a raised shoulder to help prevent jamming. All plastic construction won't scratch or damage sail track. Solid plastic slides recommend by many leading spar manufactures.



					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SAP5	All Plastic Slug Slides	5/16"	1/8"	1"	100	Each
SAP6	All Plastic Slug Slides	3/8"	1/8"	1"	100	Each
SAP8	All Plastic Slug Slides	1/2"	1/8"	1"	100	Each

Waisted All Plastic Slug Slides

Fits Sparcraft and Selden spars. Raised shoulder to prevent jamming.



					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SW4	Waisted All Plastic Slug Slides	7/16"	1/8"	61/64"	100	Each
SW5	Waisted All Plastic Slug Slides	9/16"	5/32"	1.17"	100	Each

Oversized Nylon Slug Slides

Extra long nylon slides greatly reduce jamming and provide extra surface to reduce friction. Internally welded bail for added strength.



		WIDTH	WAIST	LENGIH	QIY/	ORDER
PART	DESCRIPTION	IN (MM)	IN (MM)	IN (MM)	PKG	BY
SPNP102	OS Nylon Slug Slide	5/16 (8.4)	5/16 (8)	1 3/4 (45)	10	Each
SPNP103	OS Nylon Slug Slide	3/8 (9.8)	5/16 (8)	1 3/4 (45)	10	Each
SPNP104	OS Nylon Slug Slide	1/2 (11.6)	5/16 (8)	1 3/4 (45)	10	Each

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Low Friction Slides < 49

Low Friction Slide

These special low friction slides move easier under load due to their larger surface area and special slippery nylon outer casing. The heavy nylon outer cover is reinforced with a stainless steel insert making these slides strong and durable.

		WIDTH	WAIST	LENGTH	QTY/	ORDER
PART	DESCRIPTION	IN (MM)	IN (MM)	IN (MM)	PKG	BY
SPNP203	Low Friction Slide	7/8 (22)	5/16 (8)	2 1/8 (60)	10	Each



Low Friction Compression Slides

Similar properties to the low frictionslides listed above, but these compression slides also add an additional slippery nylon flange that reduces slide friction when slides are loaded in compression. This makes them a natural choice for use on the front of full battens. Regular duty slides are all plastic for weight savings. Heavy duty slide has stainless insert for extra strength.

PART	DESCRIPTION	WIDTH IN (MM)	WAIST IN (MM)	LENGTH IN (MM)	QTY/ PKG	ORDER BY
Regular Dut	'y					
SPNP202	Compression Slide	3/8 (10)	5/32 (4)	2 5/32 (55)	10	Each
SPNP205	Compression Slide	7/8 (22)	5/16 (8)	2 1/8 (60)	10	Each
Heavy Duty						
SPNP204	Compression Slide	3/8 (10)	5/32 (4)	2 5/32 (55)	10	Each





Super-Strong Plastic/Stainless Outhaul Slug Slide

C-bail and wide key plate of stainless steel bear the load, while the plastic slug slides easily and won't scratch the spar.

					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SOS2	Plastic/SS Outhaul Slug Slide	1/4"	5/64"	2"	10	Each
SOS3	Plastic/SS Outhaul Slug Slide	3/8"	5/64"	2"	10	Each
SOS4	Plastic/SS Outhaul Slug Slide	1/2"	5/64"	2"	10	Each



Plastic Coated Bronze Outhaul Cars

Excellent choice for many boats that require high-strength and slipperiness for ease of adjustability. Plastic coating keeps bronze slide looking good and reduces corrosion.

					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SC4K	Black Coated Outhaul Car	1/4"	7/64"	3"	10	Each
SC4L	Blue Coated Outhaul Car	1/4"	7/64"	3"	10	Each
SC5K	Black Coated Outhaul Car	5/16"	1/8"	2 53/64"	10	Each
SC8K	Black Coated Outhaul Car	3/8"	1/8"	2 61/64"	10	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Welded Stainless Steel Slug Slides



Designed for high load applications.

					QTY/	ORDER
PART	DESCRIPTION	DIA	WAIST	LENGTH	PKG	BY
SS5	Welded SS Slug Slides	5/16"	1/8"	1 1/2"	10	Each
SS7	Welded SS Slug Slides	7/16"	1/8"	1 7/16"	10	Each
SS8	Welded SS Slug Slides	1/2"	1/8"	1 7/16"	10	Each

Twist-On Nylon Hanks



Light weight and easy to install. These twist-on hanks provide attachment to forestay without the complication of snaps or velcro.

PART	DESCRIPTION	QTY/PKG	ORDER BY
FHT	Twist-On Nylon Hanks w/Screws	100	Each

Twist-On Nylon Hanks



Similar properties to twist-on nylon hanks listed above. These hanks are manufactured in four different sizes to fit a larger variety of forestay sizes.



		MAX		QTY/	ORDER
PART	DESCRIPTION	WIRE	LENGTH	PKG	BY
FPNP14	Twist-On Nylon Hanks w/Screws	3/16"	1 1/4"	100	Each
FPNP14A	Twist-On Nylon Hanks w/Screws	7/32"	1 5/16"	100	Each
FPNP14B	Twist-On Nylon Hanks w/Screws	5/16"	1 1/2"	100	Each
FPNP14C	Twist-On Nylon Hanks w/Screws	3/8"	1 3/4"	100	Each

Note: We recommend a traditional brass hank at head and tack for added strength on larger boats.

Nylon Piston Hanks



Provide an excellent combination of strength, weight, and ease of use. Brass piston mechanism allows for quick release for headsail changes.

PART	DESCRIPTION	MAX WIRE	LENGTH	QTY/ PKG	ORDER BY
FPNP88A	Nylon Piston Hank	1/4"	1 5/16"	100	Each
TT NI OOA	TVyloti i istori i iarik	1/4	1 3/10	100	Lacii
FPNP88B	Nylon Piston Hank	25/64"	2 1/2"	100	Each
FPNP88C	Nylon Piston Hank	1/2"	3 1/8"	100	Each

Note: We recommend a traditional brass hank at head and tack for added strength on larger boats.



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Swedish Press-On Jib Hanks

A long time industry standard, these brass hanks are strong, durable and easy to install. If in doubt which hank to install, these are your best bet.

PART	DESCRIPTION	SIZE	MAX WIRE	LENGTH	QTY/ PKG	ORDER BY
FHP0	Swedish Press-On Jib Hanks	0	5/64"	1 3/4"	50	Each
FHP1	Swedish Press-On Jib Hanks	1	5/16"	2 3/32"	50	Each
FHP2	Swedish Press-On Jib Hanks	2	15/32"	2 1/2"	25	Each
FHP3	Swedish Press-On Jib Hanks	3	37/64"	2 7/8"	25	Each
FHP4	Swedish Press-On Jib Hanks	4	5/8"	3 1/4"	10	Each
FHP5	Swedish Press-On Jib Hanks	5	13/16"	3 3/4"	10	Each
FHP6	Swedish Press-On Jib Hanks	6	7/8"	3 7/8"	10	Each



Sew-On Jib Hanks

Same high quality and reliability as Swedish jib hanks, but designed to be sewn on for a more traditional look.

			MAX		QTY/	ORDER
PART	DESCRIPTION	SIZE	WIRE	LENGTH	PKG	BY
FHS0	Sew-On Jib Hanks	0	7/32"	1 5/8"	50	Each
FHS1	Sew-On Jib Hanks	1	19/64"	2 3/32"	50	Each
FHS2	Sew-On Jib Hanks	2	15/32"	2 1/2"	25	Each
FHS3	Sew-On Jib Hanks	3	37/64"	2 9/16"	25	Each
FHS4	Sew-On Jib Hanks	4	11/16"	3 21/32"	10	Each
FHS5	Sew-On Jib Hanks	5	3/4"	4 13/32"	10	Each



Wichard Brass Press-On Hanks

Snaps easily to the headstay with one hand. A must for single-handed sailors!

			MAX	QTY/	ORDER
PART	DESCRIPTION	LENGTH	WIRE	PKG	BY
F2486B	Brass Press-On Hanks	5/16"	2"	25	Each
F2483B	Brass Press-On Hanks	3/8"	2 1/4"	25	Each
F2487B	Brass Press-On Hanks	7/16"	2 5/8"	25	Each



Wichard Stainless Steel Press-On Hanks

Cast in premium grade stainless steel. Snaps easily to the headstay with one hand. A must for single-handed sailors!

			MAX	QTY/	ORDER
PART	DESCRIPTION	LENGTH	WIRE	PKG	BY
F2486S	SS Press-On Hanks	5/16"	1 7/8"	25	Each
F2483S	SS Press-On Hanks	3/8"	2 1/4"	20	Each
F2487S	SS Press-On Hanks	7/16"	2 5/8"	10	Each
F2489S	SS Press-On Hanks	1/2"	3 1/8"	10	Each
F2488S	SS Press-On Hanks	21/32"	3 5/8"	5	Each
F2490S	SS Press-On Hanks	15/16"	4 1/4"	5	Each



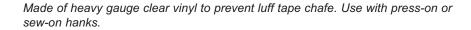
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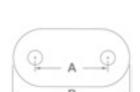


52> Tack Hooks & Shackles

Jib Hank Chafe Protectors







		DIM	DIM	USE WITH	QTY/	ORDER
PART	DESCRIPTION	Α	В	JIB HANKS	PKG	BY
FHQ1	Jib Hank Chafe Prtc	1 5/16"	2 5/16"	FHP0, FHP1	100	Pkg
				F2486B, F2486S		
FHQ2	Jib Hank Chafe Prtc	1 1/2"	2 1/2"	FHP2, F2483B	100	Pkg
				F2483S, F2487B		
				F2487S		
FHQ3	Jib Hank Chafe Prtc	1 3/8"	2 3/8"	FHP3, F2489S	100	Pkg
FHQ4	Jib Hank Chafe Prtc	1 5/8"	3 1/8"	FHP4, FHP5, FHP6 F2488S, F2490S	100	Pkg

Wichard Stainless Steel Tack Hooks



Frequently used at tack point of genoas for one handed attachment to deck fittings. Safety type are made from high tensile stainless steel and are capable of higher working loads than standard type tack hooks. Designed for easy one hand operation.



				SAFE LOAD	QTY/	ORDER
PART	DESCRIPTION	TYPE	LENGTH	(LBS)	PKG	BY
F2480	SS Tack Hooks	Standard	2"	660	10	Each
F2481	SS Tack Hooks	Standard	3"	1,320	10	Each
F2482	SS Tack Hooks	Standard	4"	3,080	5	Each
F2381	SS Tack Hooks	Safety	3"	2,420	10	Each
F2382	SS Tack Hooks	Safety	4"	4,620	5	Each

Tylaska Trigger Release Shackles



Premium grade stainless steel makes these shackles very strong and durable. Trigger mechanism allows shackle to be released quickly and under load. Excellent choice for larger racing headsails or halyards.



	LENGTH	BAIL WIDTH	WEIGHT	SAFE LOAD	ORDER
PART	IN (MM)	IN (MM)	OZ (GM)	LBS (KG)	BY
Standard Bail					
FT5S Trg RI Shk	2 15/16 (74.6)	9/16 (14.2)	2.2 (62)	2,500 (1136)	Each
FT8S Trg RI Shk	3 7/16 (87.3)	21/32 (16.7)	3.5 (3.5)	4,000 (1818)	Each
FT12S Trg RI Shk	4 (101.6)	3/4 (19.1)	5.6 (159)	6,000 (2727)	Each
FT20S Trg RI Shk	5 (127)	31/32 (24.6)	10.7 (304)	10,000 (4545)	Each
FT30S Trg RI Shk	6 3/8 (161.9)	1 1/4 (31.8)	22.4 (636)	15,000 (6818)	Each
Large Bail					
FT5L Trg RI Shk	3 5/16 (84.1)	7/8 (22.2)	2.6 (74)	2,500 (1136)	Each
FT8L Trg RI Shk	3 5/8 (92.1)	1 (25.4)	4.3 (122)	4,000 (1818)	Each
FT12L Trg RI Shk	4 1/2 (114.3)	1 3/16 (30.2)	7.2 (205)	6,000 (2727)	Each
FT20L Trg RI Shk	5 9/16 (141.3)	1 1/2 (38.1)	11.9 (328)	10,000 (4545)	Each

FT30L Trg RI Shk 7 3/16 (182.6) 1 29/32 (48.4) 29.0 (824) 15,000 (6818) Each



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Snap Hooks & Swivels < 53

Tylaska Trigger Release Tack Shackles

A more refined version of Tylaska's trigger release shackles specifically designed to be use in headsail tacks.

PART	DESCRIPTION	MAX WIRE	ORDER BY
FT8XA	Trigger Release Tack Shackle	5/16"	Each



Bronze Fast Eye Snap Hooks

All purpose bronze snap hooks with fast eye for use in various low load applications such as spinnaker turtles and bags.

				EYE	MAX	QTY/	ORDER
PART	DESCRIPTION	SIZE	LENGTH	ID	OPEN	PKG	BY
FSN0	Bronze Fast Eye Snap Hook	0	2 1/8"	13/32"	1/4"	50	Each
FSN1	Bronze Fast Eye Snap Hook	1	2 3/4"	19/32"	11/32"	50	Each
FSN2	Bronze Fast Eye Snap Hook	2	3 7/32"	3/4"	13/32"	50	Each
FSN3	Bronze Fast Eye Snap Hook	3	3 7/8"	13/16"	23/32	50	Each



Nickel Coated Bronze Fast Eye Snap Hooks

All purpose nickel coated bronze snap hooks with fast eye for use in various low load applications such as spinnaker turtles and bags.

				EYE	MAX	QTY/	ORDER
PART	DESCRIPTION	SIZE	LENGTH	ID	OPEN	PKG	BY
FSN0N	Nickel Fast Eye Snap Hook	0	2 1/8"	3/8"	1/4"	50	Each



Bronze Swivel Eye Snap Hooks

All purpose bronze snap hooks with swivel eye for use in various low load applications.

				EYE	MAX	QTY/	ORDER
PART	DESCRIPTION	SIZE	LENGTH	ID	OPEN	PKG	BY
FSSN	Bronze Swivel Eye Snap Hook	1	3 1/4"	5/8"	13/32"	50	Each



Bronze Spinnaker Swivels

Heavy duty marine grade bronze with ball bearing swivel. Can be webbed on or hand sewn to spinnaker. Excellent for traditional boats with no swivel on halyards.

				MAX	QTY/	ORDER
PART	DESCRIPTION	SIZE	LENGTH	LOAD	PKG	BY
FSW0	Bronze Spinnaker Swivels	0	1 7/8"	1500 lbs	10	Each
FSWH	Bronze Spinnaker Swivels	1/2	2 1/8"	1500 lbs	10	Each
FSW1	Bronze Spinnaker Swivels	1	2 3/4"	2200 lbs	10	Each
FSW2	Bronze Spinnaker Swivels	2	3 1/8"	2600 lbs	10	Each
FSW3	Bronze Spinnaker Swivels	3	4 1/16"	3500 lbs	10	Each
FSW4	Bronze Spinnaker Swivels	4	5 1/4"	3900 lbs	5	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



54> Clips and Shackles

Bronze Spinnaker Swivel Shackles



Marine grade bronze swivel with shackle on one end. The incorporated shackle eliminates the need for webbing or hand sewing when attaching to the spinnaker.

			MAX	QTY/	ORDER
PART	DESCRIPTION	LENGTH	LOAD	PKG	BY
FSWS	Bronze Spinnaker Swivel Shackles	2 3/4"	1500 lbs	10	Each

Stainless Steel Sister Clips with Ferrules



Great for many One Design spinnaker sheets where light weight, strength and quick release are necessary. Stainless ferrule reduces webbing and line chafe.

PART	DESCRIPTION	LENGTH	QTY/PKG	ORDER BY
FHA75	SS Sister Clip with Ferrules	1 1/2"	100	Each

Aluminum Alloy Sister Clips



Similar to Stainless Steel version except make of super light weight Aluminum Alloy for smaller boats with lower load requirements.

PART	DESCRIPTION	LENGTH	QTY/PKG	ORDER BY
FHA74	Aluminum Alloy Sister Clip	1 3/8"	100	Each

Aluminum Brummel Hooks



Traditional smooth and rounded brummel hook. Fast jaw style features a screw-pin for quick and easy installation on smaller spinnakers.

PART	DESCRIPTION	TYPE	LENGTH	ORDER BY
FBE00	Aluminum Brummel Hook	#00 Fast Eye	1 5/8"	Each
FBJ00	Aluminum Brummel Hook	#00 Fast Jaw	1 3/4"	Each

Plastic Shackles with Stainless Steel Screws

All purpose plastic shackles, sold complete with appropriate screws.











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Hex-Head Delrin Shackles

The strongest of all screw on plastic shackles.

		PIN	OUTER	INNER	INNER	QTY/	ORDER
PART	DESCRIPTION	DIA	LGTH	LGTH	WIDTH	PKG	BY
FHEX4	Hex-Head Shackle	1/4"	1 7/16"	15/16"	7/16"	100	Each
FHEX5	Hex-Head Shackle	5/16"	1 11/16"	1"	1/2"	100	Each



Super-Snap Plastic Shackles

Features include an auto-locking "super snap" for increased loads and a slide retainer to help prevent the sail slide from jamming.

			OUTER	INNER	INNER	QTY/	ORDER
PART	DESCRIPTION	SIZE	LGTH	LGTH	WIDTH	PKG	BY
FSHB	Super-Snap Shackle	Sm	1 1/2"	1"	5/16"	100	Each
FSHC	Super-Snap Shackle	Lg	1 7/8"	1 1/8"	3/8"	100	Each



Snap On Plastic Shackles

Simple basic snap-on shackle fits a variety of sail slugs and slides and reduces installation time.

		OUTER	INNER	INNER	QTY/	ORDER
PART	DESCRIPTION	LGTH	LGTH	WIDTH	PKG	BY
FSHA	Snap On Shackle	1 1/2"	1"	1/4"	100	Each



Plastic Fan Shackles

Designed to prevent slide rocking, comes complete with screws. Fits number eight Metal Mast slide.

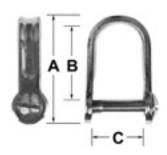
		OUTER	INNER	INNER	QTY/	ORDER
PART	DESCRIPTION	LGTH	LGTH	WIDTH	PKG	BY
FPFS	Fan Shackle	13/16"	9/32"	7/8"	100	Fach



Stainless Steel Shackles

These shackles have rolled edges to reduce chafe. Quickest and strongest method of sail-slide attachment. We recommend using chafe protectors to prevent luff rope wear.

		DIM	DIM	DIM	QTY/	ORDER
PART	DESCRIPTION	Α	В	С	PKG	BY
FSHS5	SS Shackle	59/64"	5/8"	25/64"	100	Each
FSHS6	SS Shackle	1 3/32"	23/32"	29/64"	100	Each
FSHS7	SS Shackle	1 13/32"	1"	5/8"	100	Each
FSHS8	SS Shackle	1 29/64"	1 1/32"	29/64"	100	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



56> Shackles & Hoops

Shackle Chafe Protectors

Dye cut from .040 gauge vinyl.



		DIM	DIM	FITS	QTY/	ORDER
PART	DESCRIPTION	Α	В	SHKL	PKG	BY
FSP8	Shkl Chafe Protector	1 3/8"	1 15/16"	FSHS5	100	Full Pkg
FSP12	Shkl Chafe Protector	1 17/32"	2 3/16"	FSHS6	100	Full Pkg
FSP2	Shkl Chafe Protector	2 1/16"	2 19/32"	FSHS7	100	Full Pkg
FSP6	Shkl Chafe Protector	2 9/32"	3 1/32"	FSHS8	100	Full Pkg

High Quality Bronze Shackles

Stong and beautiful marine grade bronze for a variety of uses.



			OUTER	INNER	INNER	QTY/	ORDER
PART	DESCRIPTION	THCK	LGTH	LGTH	WIDTH	PKG	BY
FSH4	Bronze Shackle	1/4"	2"	1 3/8"	5/8"	50	Each
FSH5	Bronze Shackle	5/16"	2 1/2"	1 3/8"	5/8"	50	Each

Plastic Mast Hoops



Snaps securely shut without tools. Designed to quickly attach lateen rig sails to booms. Perfect fit Sunfish and Sunfish style boats.

PART	DESCRIPTION	FITS TUBE	QTY/PKG	ORDER BY
FHOOP	Plastic Mast Hoop	1.5"	25	Each

ATN Tacker



This unique product is designed to allow a conventional or asymmetrical spinnaker to be flown without a pole, by holding the tack of the spinnaker close to the centerline of the boat. Special molded polyethylene collar is designed to run smoothly over a roller furled genoa without chafing and gives a trimmer maximum control over the luff of the spinnaker. A must for cruisers or short-handed sailors. Quickly attaches to forestay with snap shackle.

PART	DESCRIPTION	SYSTEM	HEADSTAY LENGTH	ORDER BY
FATNA	ATN Tacker	Α	up to 45'	Each
FATNB	ATN Tacker	В	46' to 65'	Each
FATNC	ATN Tacker	С	66' and up	Each



Hoops and Cleats < 57

Wooden Mast Hoops

High quality hoops are steam bent from clear straight grain white oak and laminated for greater strength and then finished with a 65/35 mixture of pure linseed oil and pure gum turpentine. Hoops are supplied in copper riveted style. Inside diameter of hoop should be 25% larger than the diameter of the mast at its greatest point. Other sizes and bolted model are available on a special order basis, please inquire.

PART	DESCRIPTION	INSIDE DIA	ORDER BY
FWH3R	Wooden Mast Hoop	3"	Each
FWH4R	Wooden Mast Hoop	4"	Each
FWH5R	Wooden Mast Hoop	5"	Each
FWH6R	Wooden Mast Hoop	6"	Each
FWH6.5R	Wooden Mast Hoop	6.5"	Each
FWH7R	Wooden Mast Hoop	7"	Each
FWH8R	Wooden Mast Hoop	8"	Each
FWH9R	Wooden Mast Hoop	9"	Each
FWH10R	Wooden Mast Hoop	10"	Each
FWH11R	Wooden Mast Hoop	11"	Each
FWH12R	Wooden Mast Hoop	12"	Each



Hoop Sail Fasteners

These fasteners are made of Investment Cast bronze. They are available in two sizes, small for hoops through 6", and large for hoops 7" through 12". Male half should be sewn to sail with sailtwine or waxed hand sewing thread. Female half should be attached to mast hoop with flat head wood screws.

PART	DESCRIPTION	SIZE	TYPE	QTY/PKG	ORDER BY
FH1	Hoop Sail Fastener	SM	Male	10	Each
FH2	Hoop Sail Fastener	SM	Female	10	Each
FHL1	Hoop Sail Fastener	LG	Male	10	Each
FHL2	Hoop Sail Fastener	LG	Female	10	Each



Gransegel Leechline Cleats

Light weight sew-on style cleats are a great choice for leech cord cleats on smaller boats, and as foot cords on larger boats. Lower profile does not get caught in the rig on tacks. We recommend using only braided Dacron or nylon leech cord in these cleats as aramids will prematurely wear-out cleat.

PART	DESCRIPTION	SIZE	USES LEECHLINE	QTY/ PKG	ORDER BY
FCLGS	Gransegel Leechline Cleat	SM	40, 50, 205	100	Each
FCLGL	Gransegel Leechline Cleat	LG	205, 505, 805	100	Each
FCLGX	Gransegel Leechline Cleat	XL	505, 805	50	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

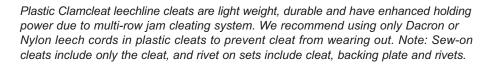


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Leechline Clamcleats

Plastic Leechline Clamcleats







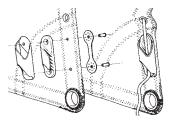
PART	DESCRIPTION	TYPE	INCLD	USES LEECHLINE	QTY/ PKG	ORDER BY
Dinghy Le	echline Clamcleats					
FCL221	Dinghy	Rivet-on	Set	40, 50, 205	100	Sets
Port Side	Leechline Clamcleat	ts				
FCLA212	Open Port Side	Sew-on	Cleat	205, 505, 805	100	Each
FCL212	Open Port Side	Rivet-on	Set	205, 505, 805	100	Sets
FCL212A	Port Side Clar	ncleat Cov	er	FCL212, FCL258	100	Each
FCL233	Captive Port Side	Sew-on	Cleat	205, 505, 805	100	Each
FCL233B	Captive Back Plate	Rivet-on	Set		100	Sets
Starboard	Leechline Clamclea	tc				
FCLA214	Starboard	Sew-on	Cleat	205, 505, 805	100	Each
FCL214	Starboard	Rivet-on	Set	205, 505, 805	100	Sets
I OLZ 14	Glaibbaid	111061-011	361	200, 300, 000	100	Jeis

Composite Port Side Leechline Cleat

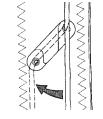


Composite cleats offer the light weight of plastic with the added durability of fiberglass reinforced jam-cleating jaws. Even with stronger jaws Dacron or Nylon leechline is recommended. Note: Set includes cleat, backing plate and rivets.

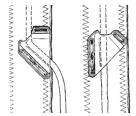
				USES	QIY/	ORDER
PART	DESCRIPTION	TYPE	INCLD	LEECHLINE	PKG	BY
FPNP25A	Captive Port Side	Rivet-on	Set	505, 805	10	Sets



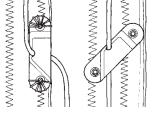
FCL212(A) / FCL258(A)



FCL212 (ALTERNATE)



FCL233



FCL241



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Leechline Clamcleats

Aluminum Leechline Clamcleats

Solid aluminum leechline cleats offer the best and strongest holding power of any of our leechline cleats. Silver anodized to resist corrosion. Note: Sew-on cleats include only the cleat, and rivet on sets include cleat, backing plate and rivets.

				USES	QTY/	ORDER
PART	DESCRIPTION	TYPE	INCLD	LEECHLINE	PKG	BY
Port Side Le	echline Clamcleats					
FCLA241	Captive Port Side	Sew-on	Cleat	505, 805	10	Each
FCL241	Captive Port Side	Rivet-on	Set	505, 805	10	Sets
FCLA258	Open Port Side	Sew-on	Cleat	505, 805	10	Each
FCL258	Open Port Side	Rivet-on	Set	505, 805	10	Sets
Starboard Lo	eechline Clamcleats					
FCLA259	Open Starboard	Sew-on	Cleat	505, 805	10	Each
FCL259	Open Starboard	Rivet-on	Set	505, 805	10	Sets



Hard Coated Aluminum Leechline Clamcleats

Identical to Aluminum Clamcleats listed above except these cleats are Hard Coat Anodized (in black) to prevent corrosion due to electrolysis. The best choice for carbon-fiber sails. Note: Sew-on cleats include only the cleat, and rivet on sets include cleat, backing plate and rivets.

				USES	QTY/	ORDER
PART	DESCRIPTION	TYPE	INCLD	LEECHLINE	PKG	BY
Port Side Lee	chline Clamcleats					
FCLA241AN	Captive Port Side	Sew-on	Cleat	505, 805	10	Each
FCL241AN	Captive Port Side	Rivet-on	Set	505, 805	10	Sets
FCLA258AN	Open Port Side	Sew-on	Cleat	505, 805	10	Each
FCL258AN	Open Port Side	Rivet-on	Set	505, 805	10	Sets
Starboard Lee	echline Clamcleats					
FCLA259AN	Open Starboard	Sew-on	Cleat	505, 805	10	Each
FCL259AN	Open Starboard	Rivet-on	Set	505, 805	10	Sets









CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

D-Rings

High grade TIG welded stainless steel.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GD1	D-Ring	1"	3/16"	25	Each
GD1Q	D-Ring	1 1/4"	3/16"	25	Each
GD1H	D-Ring	1 1/2"	3/16"	25	Each
GD2	D-Ring	2"	1/4"	25	Each
GD2B	D-Ring	2 3/8"	5/16"	25	Each
GD3B	D-Ring	3 1/8"	3/8"	20	Each
GD4Q	D-Ring	4"	7/16"	10	Each

Coletech D-Rings with Bar

High grade TIG welded stainless steel with reinforcing bar helps prevent distortion and twisting of D-Ring.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GDB2	D-Ring with Bar	2"	1/4"	25	Each
GDB23	D-Ring with Bar	2 3/8"	5/16"	25	Each
GDB24	D-Ring with Bar	2 3/4"	5/16"	10	Each
GDB3	D-Ring with Bar	3"	5/16"	10	Each

Butterfly D-Rings / Clew Pieces

Designed for high strength from stainless steel with slots to reduce webbing slippage.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GBDR2	Butterfly D-Ring/Clew Piece	2"	1/4"	25	Each
GBDR23	Butterfly D-Ring/Clew Piece	2 3/8"	5/16"	25	Each
GBDR24	Butterfly D-Ring/Clew Piece	2 3/4"	3/8"	25	Each
GBDR4	Butterfly D-Ring/Clew Piece	4"	7/16"	10	Each

Coletech Butterfly D-Rings / Clew Pieces

Highest quality stainless steel clew pieces with slots to reduce webbing slippage.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GBDR26	Butterfly D-Ring/Clew Piece	2 5/8"	3/8"	10	Each
GBDR3	Butterfly D-Ring/Clew Piece	3"	7/16"	10	Each



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Coletech Diamond D-Rings

High grade TIG welded stainless steel allows webbing to be aligned with the load paths of the sail.

		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GDD2	Diamond D-Ring	2"	5/16"	10	Each
GDD8	Diamond D-Ring	2 5/8"	3/8"	10	Each
GDD3	Diamond D-Ring	3"	7/16"	10	Each
GDD4	Diamond D-Ring	4"	1/2"	10	Each
GDD48	Diamond D-Ring	4"	5/8"	10	Each



Coletech Welded Round Rings

Highest quality TIG welded stainless steel round rings.

DESCRIPTION	INSIDE	STOCK	QTY/ PKG	ORDER BY
	1"	3/16"	25	Each
Welded Round Ring	1"	1/4"	25	Each
Welded Round Ring	1 1/4"	3/16"	25	Each
Welded Round Ring	1 1/4"	1/4"	25	Each
Welded Round Ring	1 1/4"	5/16"	25	Each
				Each
Welded Round Ring		5/16"	25	Each
Welded Round Ring	1 1/2"	3/8"	25	Each
Welded Round Ring	1 3/4"	5/16"	25	Each
Welded Round Ring	1 3/4"	3/8"	25	Each
				Each
				Each
				Each
Welded Round Ring	2"	7/16"	25	Each
Walded David Diam	0.4/0!!	F (4.0)!	0.5	F I-
				Each
Welded Round Ring	2 1/2"	3/8"	25	Each
Welded Round Ring	3"	5/16"	25	Each
	Welded Round Ring	DESCRIPTION Welded Round Ring	DESCRIPTION DIM DIA Welded Round Ring 1" 3/16" Welded Round Ring 1" 1/4" Welded Round Ring 1 1/4" 3/16" Welded Round Ring 1 1/4" 1/4" 5/16" Welded Round Ring 1 1/2" 5/16" Welded Round Ring 1 1/2" 3/8" Welded Round Ring 1 1/2" 3/8" Welded Round Ring 1 3/4" 5/16" Welded Round Ring 1 3/4" 3/8" Welded Round Ring 2" 1/4" Welded Round Ring 2" 5/16" Welded Round Ring 2" 7/16" Welded Round Ring 2" 7/16" Welded Round Ring 2" 7/16" Welded Round Ring 2 1/2" 5/16" Welded Round Ring 2 1/2" 3/8"	DESCRIPTION DIM DIA PKG Welded Round Ring 1" 3/16" 25 Welded Round Ring 1" 1/4" 25 Welded Round Ring 1 1/4" 3/16" 25 Welded Round Ring 1 1/4" 1/4" 25 Welded Round Ring 1 1/2" 5/16" 25 Welded Round Ring 1 1/2" 5/16" 25 Welded Round Ring 1 1/2" 3/8" 25 Welded Round Ring 1 3/4" 5/16" 25 Welded Round Ring 1 3/4" 3/8" 25 Welded Round Ring 2" 1/4" 25 Welded Round Ring 2" 5/16" 25 Welded Round Ring 2" 3/8" 25 Welded Round Ring 2" 7/16" 25 Welded Round Ring 2" 7/16" 25 Welded Round Ring 2" 5/16" 25 Welded Round Ring 2" 7/16" 25



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



62 > Round Rings & Triangles

Coletech Maxi Rings

High grade TIG welded stainless steel with reinforcing bar to helps prevent distortion.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GRW	Maxi Ring	1 1/2"	3/8"	10	Each
GRX	Maxi Ring	2"	7/16"	10	Each
GRY	Maxi Ring	2 1/2"	1/2"	10	Each
GRZ	Maxi Ring	3"	5/8"	10	Each

High Strength Plastic Round Rings

A good, light weight alternative to stainless in low load applications.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GP04	Plastic Round Ring	1/2"	5/32"	100	Each
GP05	Plastic Round Ring	5/8"	5/32"	100	Each
GP06	Plastic Round Ring	3/4"	3/16"	100	Each
GP07	Plastic Round Ring	13/16"	5/16"	100	Each
GP08	Plastic Round Ring	1"	1/4"	100	Each
GP14	Plastic Round Ring	1 1/4"	1/4"	50	Each
GP15	Plastic Round Ring	1 1/4"	5/16"	50	Each
GP18	Plastic Round Ring	1 5/8"	3/8"	50	Each

Triangles

High grade TIG welded stainless steel.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GTR1	Triangle	2"	1/4"	25	Each
GTR2	Triangle	2"	1/4"	25	Each
GTR3	Triangle	3"	5/16"	25	Each

Triangles with Bar

High grade TIG welded stainless steel with reinforcing bar to help prevent distortion.



		INSIDE	STOCK	QTY/	ORDER
PART	DESCRIPTION	DIM	DIA	PKG	BY
GTRB2	Triangle with Bar	2"	1/4"	25	Each
GTRB3	Triangle with Bar	3"	5/16"	25	Each



Garhauer Clew Blocks

Strong, yet light-weight clew block features ball-bearing/needle bearing system for low friction for easy adjustment. These blocks represent great quality at a reasonable price.

			MAX LINE	MAX WEB	SHEAVE	MAX	ORDER
PART	DESCRIPTION	SIZE	DIA	WIDTH	DIA	LOAD	BY
FBG1	Garhauer Clew Block	S	3/8"	1 3/8"	2"	2,000 lb	Each
FBG2	Garhauer Clew Block	M	1/2"	1 3/8"	3"	8,800 lb	Each
FBG3	Garhauer Clew Block	L	7/8"	1 3/8"	4"	13,200 lb	Each



Web-On Clew Blocks

Light weight anodized aluminum with three slots for webbing clew to mainsail.

			MAX LINE	MAX WEB	SHEAVE	MAX	ORDER
PART	DESCRIPTION	SIZE	DIA	WIDTH	DIA	LOAD	BY
FB1	Web-On Clew Block	S	3/8"	1 3/8"	2"	2,000 lb	Each
FB2	Web-On Clew Block	М	1/2"	1 3/8"	3"	8,800 lb	Each
FB3	Web-On Clew Block	L	7/8"	1 3/8"	4"	13,200 lb	Each



Rutgerson Outhaul Clew Blocks

Light weight anodized aluminum with four holes for attaching to mainsail with 19 mm liners. FBR1690-500 through FBR1690-800 have delrin sheaves. FBR1690-609 and FBR1690-809 have aluminum sheaves with needlebearing.

		MAX LINE	MAX WEB	SHEAVE	MAX	ORDER
PART	DESCRIPTION	DIA	WIDTH	DIA	LOAD	BY
FBR1690-500	Outhaul Block	12 mm	50 mm	50 mm	1,600 kg	Each
FBR1690-600	Outhaul Block	14 mm	50 mm	60 mm	2,000 kg	Each
FBR1690-800	Outhaul Block	18 mm	50 mm	80 mm	2,800 kg	Each
FBR1690-609	Outhaul Block	14 mm	50 mm	60 mm	2,400 kg	Each
FBR1690-809	Outhaul Block	14 mm	50 mm	80 mm	2,800 kg	Each



Rutgeron Outhaul Clew Blocks with Removable Sheave

Light weight anodized aluminum with three slots for webbing clew to mainsail. Removable sheave allows for easy installation without having to remove outhaul line. FBR1692 features an aluminum sheave with needlebearing. Note: Side sheave nut should be secured with Blue Locktite (#242) or Epoxy Glue.

		MAX LINE	MAX WEB	SHEAVE	MAX	ORDER
PART	DESCRIPTION	DIA	WIDTH	DIA	LOAD	BY
FBR1692-809	Outhaul Block	18 mm	50 mm	80 mm	4,500 kg	Each
w/l	Removable Shea	ave				



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



64> Clew & Reef Blocks

Ronstan Sportboat Clew Blocks



The perfect solution for many One-Designs or small boats that have 2 to 1 sheets.

		SHEAVE DIA	MAX ROPE	MAX LOAD	ORDER
PART	DESCRIPTION	MM (IN)	MM (IN)	KG (LB)	BY
FB30286	Sportboat Clew Block	30 (1 3/16)	8 (5/16)	660 (300)	Each

Tye-Tec Clew Blocks

Unique design provides full-function while eliminating un-needed weight. Features rope/line cover shield on sail-side of block to avoid snags.



PART	DESCRIPTION	MAX LINE SIZE	BEARING STYLE	SHEAVE DIA	MAX LOAD	ORDER BY
FBT40100	Clew Block	10 mm	Plain	100 mm	2,500 kg	Each
FBT41100	Clew Block	10 mm	Radial	100 mm	2,500 kg	Each
FBT40120	Clew Block	10 mm	Axial Needle	100 mm	2,500 kg	Each
FBT41120	Clew Block	14 mm	Plain	120 mm	2,500 kg	Each
FBT42120	Clew Block	14 mm	Axial Needle	120 mm	2,500 kg	Each
FBT40140	Clew Block	16 mm	Plain	140 mm	2,500 kg	Each
FBT41140	Clew Block	16 mm	Radial	140 mm	2,500 kg	Each
FBT42140	Clew Block	16 mm	Axial Needle	140 mm	2,500 kg	Each

Tye-Tec Reef Blocks

DESCRIPTION

PART

Unique design allows this sheave-less reef block to be webbed to leech or luff of sail at reef instead of a ring. The result is lower fiction for quicker reefing and less line wear.

BEARING

STYLE

SHEAVE

DIA

MAX

LOAD

ORDER

BY

MAX LINE

SIZE



FBT20100	Reef Block	10 mm	Plain	100 mm	2,500 kg	Each
FBT21100	Reef Block	10 mm	Radial	100 mm	2,500 kg	Each
FBT20120	Reef Block	14 mm	Plain	120 mm	4,000 kg	Each
FBT21120	Reef Block	14 mm	Radial	120 mm	4,000 kg	Each
FBT22120	Reef Block	14 mm	Axial Needle	120 mm	4,000 kg	Each
FBT21140	Reef Block	16 mm	Radial	140 mm	6,000 kg	Each
FBT22140	Reef Block	16 mm	Axial Needle	140 mm	6,000 kg	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

800-962-4499 (tel) / us@challengesailcloth.com / 860-872-0881 (fax)

Turtle Hoops & Thimbles < 65

Coletech Turtle Hoops

High grade TIG welded stainless steel manufactured by Coletech. When sewn into spinnaker bags they make launching and stuffing of spinnakers easier.

		INNER		QTY/	ORDER
PART	DESCRIPTION	DIA	THICKNESS	PKG	BY
GHP12	Turtle Hoop	12"	3/16"	10	Each
GHP16	Turtle Hoop	16"	3/16"	10	Each
GHP18	Turtle Hoop	18"	3/16"	10	Each
GHP20	Turtle Hoop	20"	3/16"	10	Each
GHP24	Turtle Hoop	24"	3/16"	10	Each
GHP30	Turtle Hoop	30"	3/16"	10	Each



Solid Stainless Steel Thimbles

Good solution for jib luff wires, tack or head pennants or any application that does not require a split thimble. Rounded edges won't catch on sails, hardware or fingers.

		WIRE		INNER	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	DIA	PKG	BY
FTJ1	Solid Stainless Thimble	1/8"	1"	7/16"	50	Each
FTJ2	Solid Stainless Thimble	5/32"	1 1/4"	1/2"	50	Each
FTJ3	Solid Stainless Thimble	15/64"	1 5/8"	3/4"	50	Each
FTJ4	Solid Stainless Thimble	5/16"	2 1/8"	11/16"	50	Each



Split Stainless Steel Thimbles

Premium quality stainless steel with rounded edges. Split opening allows thimbles to be attached to solid fixed holes in rigging, eyelets and anchors.

		WIRE		INNER	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	DIA	PKG	BY
FTK1	Split Stainless Thimble	5/32"	1 3/4"	1/2"	10	Each
FTK2	Split Stainless Thimble	3/16"	2"	1/2"	10	Each
FTK3	Split Stainless Thimble	1/4"	2"	5/8"	10	Each
FTK4	Split Stainless Thimble	5/16"	2 1/4"	3/4"	10	Each



Brass Thimbles

Great for jacklines on mainsail luffs, attaching luff slides, or roping-in sail corners.

		WIRE		INNER	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	DIA	PKG	BY
FTHA	Brass Thimble	1/2"	1/4"	1/4"	25	Each
FTHB	Brass Thimble	5/8"	3/8"	1/4"	25	Each
FTHC	Brass Thimble	3/4"	7/16"	5/16"	25	Each
FTHD	Brass Thimble	1"	5/8"	3/8"	25	Each
FTHE	Brass Thimble	1 1/4"	3/4"	1/2"	25	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



66 > Nicopress Sleeves & Tools

Nicopress Sleeves

Zinc plated copper sleeves for fastening wire rope. Use with a thimble to make an eye.



PART	DESCRIPTION	WIRE DIA	LENGTH	QTY/PKG	ORDER BY
GNP2	Nicopress Sleeve	1/16"	3/8"	100	Full Pkgs
GNP3	Nicopress Sleeve	3/32"	3/8"	100	Full Pkgs
GNP4	Nicopress Sleeve	1/8"	9/16"	100	Full Pkgs
GNP5	Nicopress Sleeve	5/32"	5/8"	100	Full Pkgs
GNP6	Nicopress Sleeve	3/16"	15/16"	100	Full Pkgs
GNP7	Nicopress Sleeve	7/32"	1"	100	Full Pkgs
GNP8	Nicopress Sleeve	1/4"	1 1/8"	100	Full Pkgs

Professional Quality Nicopress Hand Closing Tools

Made of hardened steel. Keep joints well greased for long life.



PART	DESCRIPTION	TYPE	FOR SLEEVES	ORDER BY
GNT2	Nicopress Hand Closing Tool	51-C	GNP2 & 3	Each
GNTCGMP	Nicopress Hand Closing Tool	CGMP	GNP2 - 5	Each
GNT5	Nicopress Hand Closing Tool	51-P	GNP5	Each
GNT6	Nicopress Hand Closing Tool	51-X	GNP6	Each
GNT7	Nicopress Hand Closing Tool	3-F2	GNP7	Each
GNT8	Nicopress Hand Closing Tool	3-F6	GNP8	Each
GNT9	Nicopress Hand Closing Tool	3-G9	GNP9	Each

Best Quality Scandinavian Wire Cutters



First rate wire cutters feature specialized hardened blades that stay sharp for a long time. Smallest size is handy for cutting out grommets in addition to wire. Larger sized cutters feature replaceable blades that make your old set of cutters as good as new.

PART	DESCRIPTION	TYPE	MAX CUT DIA	ORDER BY
TC7	Scandinavian Wire Cutter	C-7	3/16"	Each
TC9	Scandinavian Wire Cutter	C-9	1/4"	Each
TC12	Scandinavian Wire Cutter	C-12	3/8"	Each
TC16	Scandinavian Wire Cutter	C-16	5/8"	Each
TCR9	Replacement Wire Cutter Blades	C-9		Pkg
TCR12	Replacement Wire Cutter Blades	C-12		Pkg
TCR16	Replacement Wire Cutter Blades	C-16		Pkg



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

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Plastic & Gold Headboards < 67

Plastic Dinghy Headboards

Deluxe models features large 3/16" rivet holes and a fine finish.

				USE	USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	LINER	PKG	BY
GHP4	Dinghy Headboard	4"	4 1/2"	1/8"	5/8"	50	Each
GHP5	Dinghy Headboard	4 1/2"	5"	1/8"	5/8"	50	Each
GH43	Deluxe Dinghy Headboard	3"	4"	3/16"	5/8"	50	Each
GH44	Deluxe Dinghy Headboard	4"	4 1/2"	3/16"	5/8"	50	Each



Rutgerson 1/8" Plastic and Composite Headboards

Extremely light, while fulfilling the most stringent demands of strength and durability. All edges are well rounded. No extra work on the edges for webbing attachments etc.

					USE	QTY/	ORDER
PART	DESCRIPTION	COLOR	WIDTH	HEIGHT	LINER	PKG	BY
GH05090	Plastic Headboard	White	2 3/4"	3 1/2"	19 mm	50	Each
GH05090	Comp Headboard	Grey	2 3/4"	3 1/2"	19 mm	50	Each
GH05135	Comp Headboard	Grey	4 1/2"	5 1/3"	19 mm	50	Each



1/16" Gold Anodized Aluminum Headboards

Made of high-quality aircraft grade aluminum with a durable Anodized coating. 1/16" thickness is a perfect choice for dinghy and small keel boats.

				USE	USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	LINER	PKG	BY
GHA	Gold Headboard	4"	5"	3/16"	7/8"	50	Each
GHB	Gold Headboard	4 1/2"	5 3/4"	3/16"	7/8"	50	Each
GHD	Gold Headboard	5 1/4"	6 3/4"	3/16"	7/8"	50	Each
GHF	Gold Headboard	6"	7 1/2"	3/16"	7/8"	50	Each
GH6	Gold Headboard	6"	6"	3/16"	7/8"	50	Each
GH3	Gold Headboard	3 1/2"	4 7/8"	1/8"	7/8"	50	Each



1/8" Gold Anodized Aluminum Headboards

Made of high-quality aircraft grade aluminum with a durable Anodized coating. Thicker headboards are designed for medium to larger size boats.

				USE	USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	LINER	PKG	BY
GHC	Gold Headboard	4 1/2"	5 3/4"	3/16"	7/8"	50	Each
GHE	Gold Headboard	5 1/4"	6 3/4"	3/16"	7/8"	50	Each
GHG	Gold Headboard	6"	7 1/2"	3/16"	7/8"	50	Each
GHI	Gold Headboard	7 1/4"	9"	50	3/16"	7/8"	Each
GHJ	Gold Headboard	8 1/2"	10 1/2"	50	3/16"	7/8"	Each





CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

Headboards

1/16" Gold Anodized Aluminum Iceboat Headboards



Designed specifically for DN class ice boats. 1/16th thick.

					USE	USE	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	THICK	RIVET	LINER	BY
GDN	Gold Iceboat Headboard	4"	5"	1/16"	3/16"	50	Each

1/16" Silver Rivetless Headboards



These special cut out 1/16" thick headboards save time by attaching to sail via 7/8" stainless steel liners. No more cutting tons of rivet holes that never seem to lineup.

PART	DESCRIPTION	WIDTH	HEIGHT	QTY/PKG	ORDER BY
GHAC	Silver Rivetless Headboard	4 1/2"	5 1/2"	50	Each
GHDC	Silver Rivetless Headboard	5 1/4"	6 1/2"	50	Each
GHFC	Silver Rivetless Headboard	6"	7 1/2"	50	Each

1/8" Silver Rivetless Headboards



These special cut out 1/8" thick headboards save time by attaching to sail via 7/8" stainless steel liners. No more cutting tons of rivet holes that never seem to lineup.

PART	DESCRIPTION	WIDTH	HEIGHT	QTY/PKG	ORDER BY
GH4C	Silver Rivetless Headboard	4 1/2"	5 1/2"	50	Each
GHEC	Silver Rivetless Headboard	5 1/4"	6 1/2"	50	Each
GHGC	Silver Rivetless Headboard	6"	7 1/2"	50	Each
GHIC	Silver Rivetless Headboard	7 1/4"	9"	10	Each
GHJC	Silver Rivetless Headboard	8 1/2"	10"	10	Fach

Rutgerson Silver Anodized Aluminum Headboards

Quality silver anodized aluminum headboards. Choose between 2 or 4mm thicknesses.



					USE	USE	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	THICK	RIVET	LINER	BY
GH02090	Silver Rutgerson	3 5/8"	4 7/8"	1/16"	3/16"	19 mm	Each
GH02115	Silver Rutgerson	4 5/8"	6 1/2"	1/16"	3/16"	19 mm	Each
GH02135	Silver Rutgerson	5 3/8"	7 3/8"	1/16"	3/16"	19 mm	Each
GH03135	Silver Rutgerson	5 3/8"	7 3/8"	3/32"	3/16"	19 mm	Each
GH03160	Silver Rutgerson	6.3/8"	8 5/8"	3/32"	3/16"	19 mm	Fach

Rutgerson Silver Anodized Aluminum Headboards for One Designs



HARDWARE

Quality silver anodized aluminum headboards. Slightly thinner that our 1/8" headboards (2 mm thick) which make them a popular choice for many one-design sails.

					USE	USE	ORDER	
PART	DESCRIPTION	WIDTH	HEIGHT	THICK	RIVET	LINER	BY	
GH2112	Silver Rutgerson	4 1/2"	6 7/8"	2 mm	3/16"	19 mm	Each	
	One Design							

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

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Finn Dinghy Headboards

Specifically designed for the Finn Dinghy this headboard features extra large head-flat and inverse-radiused hypotenuse for extra weight savings.

				USE	USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	LINER	PKG	BY
GHO	1/16" Flnn Dinghy Hdbrd	5 1/4"	7 1/4"	3/16"	7/8"	50	Each



1/16" Tornado Headboards & Clewboards

Specifically designed to fit Tornado class catamaran. These headboads and clewboards also fit a variety of smaller multi-hulls as well. Choose between Stainless Steel for high strength or aluminum for lighter applications.

				USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	PKG	BY
GHP	1/16" Aluminum Tornado Head	122 mm	90 mm	1/16"	50	Each
GHQ	1/16" Stainless Tornado Head	122 mm	90 mm	1/16"	50	Each
GHU	1/16" Aluminum Tornado Clew	6 1/2"	2"	1/8"	50	Each
GHV	1/16" Stainless Tornado Clew	6 1/2"	2"	1/8"	50	Each



1/16" Tack Plate

Thin tack plate is a favorite of many smaller beach catamarans.

				USE	USE	QTY/	ORDER
PART	DESCRIPTION	WIDTH	HEIGHT	RIVET	LINER	PKG	BY
GHT	1/16" Tack Plate	2 1/2"	2 1/2"	1/8"	5/8"	50	Each



Clewboards

The ideal solution for multi-hulls or self-tacking jibs. Made of high grade aircraft aluminum with durable anodized coating. Multiple holes provide for sheeting angle adjustment.

PART	DESCRIPTION	WIDTH	HEIGHT	USE RIVET	QTY/ PKG	ORDER BY
GHW	1/16" Clewboard – 3 Hole	1 1/2"	5 1/2"	1/8"	50	Each
GHX	1/16" Clewboard – 5 Hole	1 1/2"	7 1/2"	3/16"	50	Each
GHY	1/8" Clewboard – 5 Hole	2"	6 1/4"	3/16"	50	Each
GHZ	1/8" Clewboard – 5 Hole	1 5/8"	7 1/2"	3/16"	50	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



70 > Clewboards & Liners

Rutgerson Clewboards



High-quality with unique designs. A perfect fit for many multi-hull sails or jib clewboards.

PART	TYPE	LENGTH	WIDTH	тнск	USE LINER	ORDER BY
GH1190-045	Clewboard	220 mm	45 mm	2 mm	4 x 14 mm	Each
GH1190-05	Clewboard	190 mm	50 mm	2 mm	5 x 14 mm	Each
GH1190-090	Clewboard	260 mm	90 mm	3 mm	5 x 19 mm	Each
GH1190-100	Clewboard	280 mm	100 mm	2 mm	9 x 14 mm	Each

Headboard Liners



Stainless steel liners are pre-flared at one end to aid in lining up of headboards in press.

PART	DESCRIPTION	MATERIAL	DIA	QTY/PKG	ORDER BY
GHLSS7	Headboard Liner	Stainless	7/8"	50	Each
GHLB5	Headboard Liner	Brass	5/8"	50	Each
GHLB7	Headboard Liner	Brass	7/8"	50	Each

Rutgerson Headboard Liners



Principally designed for use with Rutgerson Headboard and Clewboards. Liners are made of Stainless Steel with a thinner wall that our standard headboard liners. Available in two sizes (check headboard or clew board description for correct size).

PART	DESCRIPTION	MATERIAL	DIA	QTY/PKG	ORDER BY
GHL19	Headboard Liner	Stainless	19 mm	50	Each

Headboard Leechline Blocks



Light-weight and low profile bolt-on headboard blocks are the perfect solution for over the head leech cord systems.

PART	DESCRIPTION	QTY/PKG	ORDER BY
FLB	Headboard Leechline Block	10	Each

Headboard Liner Closing Tools for Hydraulic Presses



HARDWARE

Professional grade dies for closing our standard headboard liners.

PART	DESCRIPTION	FOR LINER	QTY/PKG	ORDER BY
GHLT5	Headboard Liner Closing Tool	5/8"	1	Each
GHLT7	Headboard Liner Closing Tool	7/8"	1	Each

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

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Closing Tools & Rivets < 71

Semi-Tubular Rivet Closing Tools

Simple hand-setting closing tool for tubular rivets. For best results hit against a solid aluminum or steel backing plate.

PART	DESCRIPTION	FOR RIVET	QTY/PKG	ORDER BY
GRIVL2	Semi-Tubular Rivet Closing Tool	1/8"	1	Each
GRIVL3	Semi-Tubular Rivet Closing Tool	3/16"	1	Each



Gold Semi-Tubular Rivets

Solid aluminum shank for added strength with hollow end for peaning down. Finished with gold anodizing to resist corrosion.

				USE WITH	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	HEADBOARD	PKG	BY
GRIG1A	Gold Rivet	1/8"	3/8"	GHO, GHP, GHQ	100	Full Pkg
				GHU, GHV, GHX		
GRIG2A	Gold Rivet	1/8"	1/2"	GHC, GHE	100	Full Pkg
				GHG, GHI, GHJ		
GRIG3A	Gold Rivet	3/16"	3/8"	GHO, GHP, GHQ	100	Full Pkg
			(GHU, GHV, GHW, GHX		
GRIG4A	Gold Rivet	3/16"	1/2"	GHP5, GHPR	100	Full Pkg



Silver Semi-Tubular Rivets

Solid aluminum shank for added strength with hollow end for peaning down. Finished with silver anodizing to resist corrosion.

				USE WITH	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	HEADBOARD	PKG	BY
GRIV2A	Silver Rivet	1/8"	3/8"	GHO, GHP, GHQ	100	Full Pkg
				GHU, GHV, GHX		
GRIV3A	Silver Rivet	1/8"	1/2"	GHO, GHP, GHQ	100	Full Pkg
			C	SHU, GHV, GHW, GHX		
GRIV5A	Silver Rivet	5/32"	3/8"	GHP4, GHP5	100	Full Pkg
GRIV4A	Silver Rivet	3/16"	1/2"	GHC, GHE	100	Full Pkg
				GHG, GHI, GHJ		
GRIV6A	Silver Rivet	3/16"	3/8"	GHA, GHB, GHD	100	Full Pkg
GRIV7A	Silver Rivet	3/16"	5/8"	GHG, GHI, GHJ	100	Full Pkg



Brass Tubular Rivets

Hollow, all-brass rivets are light weight yet strong enough to hold smaller size headboards together. Perfect for use in plastic and composite headboards.

				USE WITH	QTY/	ORDER
PART	DESCRIPTION	DIA	LENGTH	HEADBOARD	PKG	BY
GRI546	Brass Rivet	1/8"	7/16"	GHP4, GHP5	100	Full Pkg
GRI613	Brass Rivet	3/16"	7/16"	GHP4, GHP5	100	Full Pkg
GRI79	Brass Rivet	7/32"	5/16"	GHP4, GHP5	100	Full Pkg
GRI713	Brass Rivet	7/32"	7/16"	GHP4, GHP5	100	Full Pkg



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



72 > Spur Grommets

Brass Rolled Rim Grommets with Spur Toothed Washers

High-quality grommets feature rolled edges to prevent edges cutting through fabric, and spur-teeth grip fabric to reduce grommet tears and pull-outs. Made of solid brass to provide that traditional look.



PART	DESCRIPTION	SIZE	INNER DIA	QTY/PKG	ORDER BY
GB000	Small Brass Spur Grommet	#000	3/16"	200	Full Pkgs
GB00	Small Brass Spur Grommet	#00	1/4"	200	Full Pkgs
GB0	Brass Spur Grommet	#0	9/32"	1 Gross	Gross
GB1	Brass Spur Grommet	#1	13/32"	1 Gross	Gross
GB2	Brass Spur Grommet	#2	7/16"	1 Gross	Gross
GB3	Brass Spur Grommet	#3	1 5/32"	1 Gross	Gross
GB4	Brass Spur Grommet	#4	9/16"	1 Gross	Gross
GB5	Brass Spur Grommet	#5	5/8"	1 Gross	Gross
GB6	Brass Spur Grommet	#6	3/4"	1 Gross	Gross
GB7	Brass Spur Grommet	#7	29/32"	1 Gross	Gross
GB8	Brass Spur Grommet	#8	1 3/32"	1 Gross	Gross

Nickel Rolled Rim Grommets with Spur Toothed Washers

High-quality grommets feature rolled edges to prevent edges cutting through fabric, and spur-teeth grip fabric to reduce grommet tears and pull-outs. Made of brass with nickel coating to reduce oxidization which keeps grommets looking newer longer.



PART	DESCRIPTION	SIZE	INNER DIA	QTY/PKG	ORDER BY
GN00	Small Nickel Spur Grommet	#00	1/4"	200	Full Pkgs
GN0	Nickel Spur Grommet	#0	9/32"	1 Gross	Gross
GN1	Nickel Spur Grommet	#1	13/32"	1 Gross	Gross
GN2	Nickel Spur Grommet	#2	7/16"	1 Gross	Gross
GN3	Nickel Spur Grommet	#3	1 5/32"	1 Gross	Gross
GN4	Nickel Spur Grommet	#4	9/16"	1 Gross	Gross
GN5	Nickel Spur Grommet	#5	5/8"	1 Gross	Gross
GN6	Nickel Spur Grommet	#6	3/4"	1 Gross	Gross
GN7	Nickel Spur Grommet	#7	29/32"	1 Gross	Gross
GN8	Nickel Spur Grommet	#8	1 3/32"	1 Gross	Gross

SPUR GROMMET ACCESSORY COMPATIBILITY

Spur Grommet	Size	Closing Tool	Cutter	Hole Size
GB000	#000	GC000	GSH00	3/16"
GB00	#00	GC00	GAHA	1/4"
GB0	#0	GC0	GAHB	5/16"
GB1	#1	GC1	GAHC	3/8"
GB2	#2	GC2	GAHD	7/16"
GB3GC30	#3	GC3	GAHE	1/2"
GB4GC40	#4	GC4	GAHF	5/8"
GB5GC50	#5	GC5	GAHG	3/4"
GB6GC60	#6	GC6	GAHH	7/8"
GB7	#7	GC7	GAHI	1"
GB8	#8	GC8	GAHJ	1 1/8"



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Spur Grommet Closing Tools < 73

Stimpson Spur Grommet Closing Tools

These professional quality hand set dies which are made of hardened steel provide the best grommet closing. Choose the complete set or save money by replacing only the part that you need.

PART	DESCRIPTION	FITS GROMMET	ORDER BY
GC000	Spur Grommet Closing Tool Set	Spur #000	Complete Sets
GC00	Spur Grommet Closing Tool Set	Spur #00	Complete Sets
GC0	Spur Grommet Closing Tool Set	Spur #0	Complete Sets
GC1	Spur Grommet Closing Tool Set	Spur #1	Complete Sets
GC2	Spur Grommet Closing Tool Set	Spur #2	Complete Sets
GC3	Spur Grommet Closing Tool Set	Spur #3	Complete Sets
GC4	Spur Grommet Closing Tool Set	Spur #4	Complete Sets
GC5	Spur Grommet Closing Tool Set	Spur #5	Complete Sets
GC6	Spur Grommet Closing Tool Set	Spur #6	Complete Sets
GC7	Spur Grommet Closing Tool Set	Spur #7	Complete Sets
GC8	Spur Grommet Closing Tool Set	Spur #8	Complete Sets
GCR0	Grommet Closing Tool – Top Half	Spur #0	Each
GCR1	Grommet Closing Tool – Top Half	Spur #1	Each
GCR2	Grommet Closing Tool – Top Half	Spur #2	Each
GCR3	Grommet Closing Tool – Top Half	Spur #3	Each
GCR4	Grommet Closing Tool – Top Half	Spur #4	Each
GCR5	Grommet Closing Tool – Top Half	Spur #5	Each
GCS0	Grommet Closing Tool – Bottom Insert	Spur #0	Each
GCS1	Grommet Closing Tool – Bottom Insert	Spur #1	Each
GCS2	Grommet Closing Tool – Bottom Insert	Spur #2	Each
GCS3	Grommet Closing Tool – Bottom Insert	Spur #3	Each
GCS4	Grommet Closing Tool – Bottom Insert	Spur #4	Each
GCS5	Grommet Closing Tool – Bottom Insert	Spur #5	Each
GCS6	Grommet Closing Tool – Bottom Insert	Spur #6	Each
GCS7	Grommet Closing Tool – Bottom Insert	Spur #7	Each
GCS8	Grommet Closing Tool – Bottom Insert	Spur #8	Each







Note: larger bottom inserts sizes are pressed into old die base by means of a hydraulic press.

Generic Spur Grommet Closing Tool Sets

A great alternative when only inserting a smaller number of spur grommets. These tools get the job done without the investment in professional quality dies.

PART	DESCRIPTION	FITS GROMMET	ORDER BY
GCE0	Spur Grommet Closing Tool Set	Spur #0	Complete Sets
GCE1	Spur Grommet Closing Tool Set	Spur #1	Complete Sets
GCE2	Spur Grommet Closing Tool Set	Spur #2	Complete Sets
GCE3	Spur Grommet Closing Tool Set	Spur #3	Complete Sets
GCE4	Spur Grommet Closing Tool Set	Spur #4	Complete Sets
GCE5	Spur Grommet Closing Tool Set	Spur #5	Complete Sets
GCE6	Spur Grommet Closing Tool Set	Spur #6	Complete Sets
GCE7	Spur Grommet Closing Tool Set	Spur #7	Complete Sets
GCE8	Spur Grommet Closing Tool Set	Spur #8	Complete Sets





CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

74> Plain Grommets

Brass Grommets with Plain Washers

Use in applications that do not require spurs or rolled rims. Made of solid brass these grommets are simple, basic and cost effective.



PART	DESCRIPTION	SIZE	INNER DIA	QTY/PKG	ORDER BY
GW00	Plain Brass Grommet	#00	3/16"	1 Gross	Gross
GW0	Plain Brass Grommet	#0	1/4"	1 Gross	Gross
GW1	Plain Brass Grommet	#1	9/32"	1 Gross	Gross
GW2	Plain Brass Grommet	#2	3/8"	1 Gross	Gross
GW3	Plain Brass Grommet	#3	7/16"	1 Gross	Gross
GW4	Plain Brass Grommet	#4	1/2"	1 Gross	Gross
GW5	Plain Brass Grommet	#5	5/8"	1 Gross	Gross
GW6	Plain Brass Grommet	#6	13/16"	1 Gross	Gross

Nickel Plated Brass Grommets with Plain Washers

Use in applications that do not require spurs or rolled rims. Made of brass with nickel coating to reduce oxidization keeping grommets looking new longer. Very cost efficient.



PART	DESCRIPTION	SIZE	INNER DIA	QTY/PKG	ORDER BY
GWN0	Plain Nickel Grommet	#0	3/16"	1 Gross	Gross
GWN1	Plain Nickel Grommet	#1	1/4"	1 Gross	Gross
GWN2	Plain Nickel Grommet	#2	9/32"	1 Gross	Gross
GWN3	Plain Nickel Grommet	#3	3/8"	1 Gross	Gross
GWN4	Plain Nickel Grommet	#4	7/16"	1 Gross	Gross
GWN5	Plain Nickel Grommet	#5	5/8"	1 Gross	Gross
GWN6	Plain Nickel Grommet	#6	13/16"	1 Gross	Gross

PLAIN GROMMET ACCESSORY COMPATIBILITY

Plain Grommet	Size	Closing Tool	Cutter	Hole Size
GW00	#00	GCW00	GAHA	1/4"
GW0	#0	GCW0	GAHB	5/16"
GW1	#1	GCW1	GAHC	3/8"
GW2	#2	GCW2	GAHD	7/16"
GW3	#3	GCW3	GAHE	1/2"
GW4	#4	GCW4	GAHF	5/8"
GW5	#5	GCW5	GAHG	3/4"
GW6	#6	GCW6	GAHH	7/8"



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Self-Piercing Grommets < 75

Generic Plain Grommet Closing Tools

A great alternative when only inserting a smaller number of plain washer grommets. These tools get the job done without the investment in professional quality dies.

PART	DESCRIPTION	FITS GROMMET	ORDER BY
GCW00	Plain Grommet Closing Tool Set	Plain #00	Complete Sets
GCW0	Plain Grommet Closing Tool Set	Plain #0	Complete Sets
GCW1	Plain Grommet Closing Tool Set	Plain #1	Complete Sets
GCW2	Plain Grommet Closing Tool Set	Plain #2	Complete Sets
GCW3	Plain Grommet Closing Tool Set	Plain #3	Complete Sets
GCW4	Plain Grommet Closing Tool Set	Plain #4	Complete Sets
GCW5	Plain Grommet Closing Tool Set	Plain #5	Complete Sets
GCW6	Plain Grommet Closing Tool Set	Plain #6	Complete Sets



Stimpson Self Piercing Grommets

Choose lacquer finished or nickel plated brass with sharpened edges. Eliminates the need to pre-cut holes.

PART	MATERIAL	INNER DIA	QTY/PKG	ORDER BY
GB0SP	Brass Self Piercing Grommet	1/4"	100	Full Pkgs
GB1SP	Brass Self Piercing Grommet	5/16"	100	Full Pkgs
GB2SP	Brass Self Piercing Grommet	3/8"	100	Full Pkgs
GN0SP	Nickel Self Piercing Grommet	1/4"	100	Full Pkgs
GN1SP	Nickel Self Piercing Grommet	5/16"	100	Full Pkgs
GN2SP	Nickel Self Piercing Grommet	3/8"	100	Full Pkgs
GN3SP	Nickel Self Piercing Grommet	7/16"	100	Full Pkgs



Stimpson Bench Mounted Self Piercing Grommet Press

This professional quality, solid cast-iron press has a long handle to provide leverage for inserting self piercing grommets in one pull. Mounts to bench with 4 bolts (not included).

PART	DESCRIPTION	FITS GROMMET	ORDER BY
T405S	Bench Mounted SP Grommet Press	SP #0-3	Each
T400	SP Grommet Die for Bench Press	SP #0	Each
T401	SP Grommet Die for Bench Press	SP #1	Each
T402	SP Grommet Die for Bench Press	SP #2	Each
T403	SP Grommet Die for Bench Press	SP #3	Each



Self Piercing Grommet Press and Snap Dies

Designed to be used with Press-N-Snap Tool (pg 125). Excellent for installing selfpiercing grommets on the run. Each die set features rubber retainers that hold grommet components in the dies until the handle is squeezed, freeing up an extra hand.

PART	DESCRIPTION	FITS GROMMET	ORDER BY
TPNS6	SP Grommet Press and Snap Die	SP #0	Complete Sets
TPNS7	SP Grommet Press and Snap Die	SP #1	Complete Sets
TPNS8	SP Grommet Press and Snap Die	SP #2	Complete Sets



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



76> Grommet Hole Cutters

Side Hole Cutters



High quality professional grade steel. Great for cutting holes for grommets, rings and rivets. Use with Black Vinyl Cutting Pad (pg 77) to prolong blade sharpness.

PART	DESCRIPTION	FITS GROMMET	HOLE DIA	ORDER BY
GSH000	Side Hole Cutter	#000	1/8"	Each
GSH00	Side Hole Cutter	#00	3/16"	Each
GSH0A	Side Hole Cutter	#0	1/4"	Each
GSH1A	Side Hole Cutter	#1	9/32"	Each
GSH2A	Side Hole Cutter	#2	3/8"	Each
GSH3A	Side Hole Cutter	#3	7/16"	Each
GSH4A	Side Hole Cutter	#4	1/2"	Each
GSH5A	Side Hole Cutter	#5	5/8"	Each
GSH6A	Side Hole Cutter	#6	3/4"	Each
GSH7A	Side Hole Cutter	#7	7/8"	Each
GSH8A	Side Hole Cutter	#8	1"	Each

Arch Hole Cutters



High quality professional grade steel. Arch style cutters evenly distribute pounding pressure on blades for an even cut every time. Large opening at top allows for easy cleaning. The metric units are a natural choice for use with Rutgerson Super Rings (pg 77). Use with Black Vinyl Cutting Pad (pg 77) to prolong blade sharpness.



PART	DESCRIPTION	HOLE DIA	ORDER BY
GAHA	SAE Arch Hole Cutter	1/4"	Each
GAHB	SAE Arch Hole Cutter	5/16"	Each
GAHC	SAE Arch Hole Cutter	3/8"	Each
GAHD	SAE Arch Hole Cutter	7/16"	Each
GAHE	SAE Arch Hole Cutter	1/2"	Each
GAHF	SAE Arch Hole Cutter	5/8"	Each
GAHG	SAE Arch Hole Cutter	3/4"	Each
GAHH	SAE Arch Hole Cutter	7/8"	Each
GAHO	SAE Arch Hole Cutter	15/16"	Each
GAHI	SAE Arch Hole Cutter	1"	Each
GAHJ	SAE Arch Hole Cutter	1 1/8"	Each
GAHK	SAE Arch Hole Cutter	1 1/4"	Each
GAHL	SAE Arch Hole Cutter	1 3/8"	Each
GAHM	SAE Arch Hole Cutter	1 1/2"	Each
GAHN	SAE Arch Hole Cutter	1 3/4"	Each
GAH10	Metric Arch Hole Cutter	10 mm	Each
GAH12	Metric Arch Hole Cutter	12 mm	Each
GAH14	Metric Arch Hole Cutter	14 mm	Each
GAH20	Metric Arch Hole Cutter	20 mm	Each
GAH25	Metric Arch Hole Cutter	25 mm	Each
GAH35	Metric Arch Hole Cutter	35 mm	Each
GAH45	Metric Arch Hole Cutter	45 mm	Each
GAH55	Metric Arch Hole Cutter	55 mm	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Grommet Hole Cutters < 77

Webbing-Slot Arch Hole Cutter

This hole punch is specially designed for webbing-slots in headboards and clewboards. A real time saver!

PART	DESCRIPTION	CUT SLOT SIZE	ORDER BY
GAH5X20	Webbing-Slot Arch Hole Cutter	5 mm x 20 mm	Each
		(0.20" x 0.98")	



Revolving Tube Punch Tool and Replacement Parts

Perfect for punching small holes for rivets and snap parts on the go. Tool is fully portable and each tube-punch is individually replaceable.

PART	DESCRIPTION	TUBE SIZES	ORDER BY
GPUN	Punch Tool w/ DriveTubes #1-6	See Below	Each
GPUR0	Replacement Anvil		Each
GPUR0	Replacement Tube #0	5/64"	Each
GPUR1	Replacement Tube #1	3/32"	Each
GPUR2	Replacement Tube #2	7/64"	Each
GPUR3	Replacement Tube #3	1/8"	Each
GPUR4	Replacement Tube #4	5/32"	Each
GPUR5	Replacement Tube #5	11/64"	Each
GPUR6	Replacement Tube #6	3/16"	Each



Black Vinyl Cutting Pad

Friendliest companion for any Side Hole or Arch Hole Cutter. These black vinyl pads not only help prolong the life cutting blades, they also help insure a clear clean cut with fewer jagged edges.

PART	DESCRIPTION	SIZE	ORDER BY
GPAD	Black Vinyl Cutting Pad	10" x 10" x 3/8"	Each



Heavy Solid Brass Rings

Use by themselves or as the inner ring on traditional-style hand-sewn-in rings.

PART	DESCRIPTION	INNER DIA	THICKNESS	QTY/PKG	ORDER BY
GBRA	Solid Brass Ring	1/2"	1/8"	100	Each
GBRB	Solid Brass Ring	5/8"	5/32"	100	Each
GBRC	Solid Brass Ring	3/4"	3/16"	100	Each
GBRD	Solid Brass Ring	7/8"	3/16"	50	Each
GBRE	Solid Brass Ring	1"	3/16"	50	Each
GBRF	Solid Brass Ring	1 1/8"	3/16"	50	Each
GBRG	Solid Brass Ring	1 1/4"	1/4"	50	Each
GBRH	Solid Brass Ring	1 1/2"	5/16"	25	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



78 > Super Ring Sets

Rutgerson Super Ring Sets



High quality stainless steel and large gripping teeth that actually go through the cloth (not just the surface) make these Super Rings the best press-ring on the market. They are also fully removable saving time and labor on adjustments and re-cuts.

PART	DESCRIPTION	SIZE	QTY/PKG	ORDER BY
GSR10	Super Ring Set	10 mm	100	Complete Sets
GSR12	Super Ring Set	12 mm	100	Complete Sets
GSR14	Super Ring Set	14 mm	100	Complete Sets
GSR20	Super Ring Set	20 mm	100	Complete Sets
GSR20LD	Light Duty Super Ring Set	20 mm	100	Complete Sets
GSR25	Super Ring Set	25 mm	100	Complete Sets
GSR25LD	Light Duty Super Ring Set	25 mm	100	Complete Sets
GSR25SLD	Super Lt Duty Super Ring Set	25 mm	100	Complete Sets
GSR35	Super Ring Set	35 mm	100	Complete Sets
GSR45	Super Ring Set	45 mm	50	Complete Sets
GSR55	Super Ring Set	55 mm	50	Complete Sets

See pg 76 for metric Arch hole cutters, pg 80 for installation dies and pg 81 for removal dies.

Rutgerson Carbon Super Ring Sets



Identical to the original Super Rings (listed above) except these rings are made of a special type of steel that resists corrosion due to electrolysis. This makes them the perfect choice for carbon fiber sails.

PART	DESCRIPTION	SIZE	QTY/PKG	ORDER BY
GSR20-C	Carbon Ring Set	20 mm	50	Complete Sets
GSR25-C	Carbon Ring Set	25 mm	50	Complete Sets
GSR35-C	Carbon Ring Set	35 mm	50	Complete Sets
GSR45-C	Carbon Ring Set	45 mm	50	Complete Sets

SUPER RING DIE SETTING COMPATIBILITY

Part	Ring Size	Hole Cutter	Press Force	Aprx Max Load	Patch Weight
GSR10	10 mm	GAH10	Hand	150 – 250 kg	25 – 35 oz
GSR12	12 mm	GAH12	Hand	300 – 350 kg	25 – 35 oz
GSR14	14 mm	GAH14	3 – 5 Tons/Hand	350 – 500 kg	25 – 40 oz
GSR20(C)	20 mm	GAH20	11 – 13 Tons	700 – 1500 kg	40 – 70 oz
GSR20LD	20 mm	GAH20	8 – 10 Tons	600 – 1125 kg	30 – 70 oz
GSR25(C)	25 mm	GAH25	15 Tons	1000 – 1600 kg	50 – 70 oz
GSR25LD	25 mm	GAH25	11 – 13 Tons	750 – 1300 kg	50 – 70 oz
GSR25SLD	25 mm	GAH25	4 – 6 Tons	500 – 800 kg	10 – 30 oz
GSR35(C)	35 mm	GAH35	22 Tons	1455 – 2045 kg	70 – 90 oz
GSR45(C)	45 mm	GAH45	25 Tons	2000 – 2500 kg	80 – 100 oz
GSR55	55 mm	GAH55	25 Tons – 1st 30 Tons – 2nd	2800 – 3200 kg	80 – 100 oz



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Super Ring Parts < 79

Rutgerson Super Ring Replacement Parts

Each Super Rings is made up of three components: the liner/grommet, a plastic insert, and the toothed ring/washer. Order individual components when you need to replace a missing piece from your inventory.

PART	DESCRIPTION	SIZE	ORDER BY
GSR10L	Super Ring Liner/Grommet	10 mm	Each
GSR10P	Super Ring Plastic Insert	10 mm	Each
GSR10T	Super Ring Toothed Ring/Washer	10 mm	Each
GSR12L	Super Ring Liner/Grommet	12 mm	Each
GSR12P	Super Ring Plastic Insert	12 mm	Each
GSR12T	Super Ring Toothed Ring/Washer	12 mm	Each
GSR14L	Super Ring Liner/Grommet	14 mm	Each
GSR14P	Super Ring Plastic Insert	14 mm	Each
GSR14T	Super Ring Toothed Ring/Washer	14 mm	Each
GSR20L	Super Ring Liner/Grommet	20 mm	Each
GSR20P	Super Ring Plastic Insert	20 mm	Each
GSR20T	Super Ring Toothed Ring/Washer	20 mm	Each
0011201	ouper raing rootiled raing/washer	20 111111	Lacii
GSR25L	Super Ring Liner/Grommet	25 mm	Each
GSR25P	Super Ring Plastic Insert	25 mm	Each
GSR25T	Super Ring Toothed Ring/Washer	25 mm	Each
GSR35L	Cunar Ding Liner/Crammet	35 mm	Each
GSR35P	Super Ring Liner/Grommet Super Ring Plastic Insert		
		35 mm	Each
GSR35T	Super Ring Toothed Ring/Washer	35 mm	Each
GSR45L	Super Ring Liner/Grommet	45 mm	Each
GSR45P	Super Ring Plastic Insertt	45 mm	Each
GSR45T	Super Ring Toothed Ring/Washer	45 mm	Each
GSR55L	Super Ring Liner/Grommet	55 mm	Each
GSR55P	Super Ring Plastic Insert	55 mm	Each
GSR55T	Super Ring Toothed Ring/Washer	55 mm	Each



PLASTIC INSERT



LINER / GROMMET



TOOTHED RING / WASHER



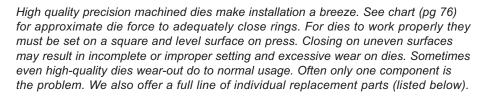
CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



< 08

Super Ring Closing Dies

Rutgerson Super Ring Closing Dies & Replacement Parts







DIE TOP



DIE PIN



DIE BOTTOM

PART	DESCRIPTION	FITS RING	ORDER BY
Complete Cl	osing Dies		
GSRT10	Super Ring Closing Die Hand Tool Set	10 mm	Complete Sets
GSRT12	Super Ring Closing Die Hand Tool Set	12 mm	Complete Sets
GSRT14	Super Ring Closing Die Hand Tool Set	14 mm	Complete Sets
GSRT20	Super Ring Closing Die Press Tool Set	20 mm	Complete Sets
GSRT25	Super Ring Closing Die Press Tool Set	25 mm	Complete Sets
GSRT35	Super Ring Closing Die Press Tool Set	35 mm	Complete Sets
GSRT45	Super Ring Closing Die Press Tool Set	45 mm	Complete Sets
GSRT55	Super Ring Closing Die Press Tool Set	55 mm	Complete Sets
Replacemen	t Parts		
GSRT10T	Super Ring Closing Die Top	10 mm	Each
GSRT10H	Super Ring Closing Die Handle	10 mm	Each
GSRT10B	Super Ring Closing Die Bottom	10 mm	Each
GSRT12T	Super Ring Closing Die Top	12 mm	Each
GSRT12H	Super Ring Closing Die Handle	12 mm	Each
GSRT12B	Super Ring Closing Die Bottom	12 mm	Each
GSRT14T	Super Ring Closing Die Top	14 mm	Each
GSRT14P	Super Ring Closing Die Pin	14 mm	Each
GSRT14B	Super Ring Closing Die Bottom	14 mm	Each
GSRT20T	Super Ring Closing Die Top	20 mm	Each
GSRT20P	Super Ring Closing Die Pin	20 mm	Each
GSRT20B	Super Ring Closing Die Bottom	20 mm	Each
GSRT25T	Super Ring Closing Die Top	25 mm	Each
GSRT25P	Super Ring Closing Die Pin	25 mm	Each
GSRT25B	Super Ring Closing Die Bottom	25 mm	Each
GSRT35T	Super Ring Closing Die Top	35 mm	Each
GSRT35P	Super Ring Closing Die Pin	35 mm	Each
GSRT35B	Super Ring Closing Die Bottom	35 mm	Each
GSRT45T	Super Ring Closing Die Top	45 mm	Each
GSRT45P	Super Ring Closing Die Pin	45 mm	Each
GSRT45B	Super Ring Closing Die Bottom	45 mm	Each
GSRT55T1	Super Ring Closing Die Top (Step 1)	55 mm	Each
GSRT55T2	Super Ring Closing Die Top (Step 2)	55 mm	Each
GSRT55P	Super Ring Closing Die Pin	55 mm	Each
GSRT55B	Super Ring Closing Die Bottom	55 mm	Each

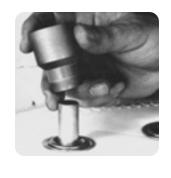


Super Ring Remover Tools < 81

Rutgerson Super Ring Remover Tools & Replacement Parts

Another great feature of Rutgerson Super rings is that they are completely removable. Use these removing die sets to reverse or push-out a previously set ring. Saves time plus makes many re-cuts or repairs cleaner and easier. Sometimes even highquality dies wear-out do to normal usage. Often only one component is the problem. We also offer a full line of individual replacement parts (listed below).

PARTDESCRIPTIONFITS RINGORDER BYComplete Remover ToolsSUPER RING REMOVER TOOL SET14 mmComplete SetsGSRP14Super Ring Remover Tool Set20 mmComplete SetsGSRP20Super Ring Remover Tool Set25 mmComplete SetsGSRP25Super Ring Remover Tool Set35 mmComplete SetsGSRP35Super Ring Remover Tool Set45 mmComplete SetsGSRP45Super Ring Remover Tool Set55 mmComplete SetsGSRP55Super Ring Remover Tool Set55 mmComplete SetsReplacement PartsSuper Ring Remover Die Cutter14 mmEachGSRP14CSuper Ring Remover Die Pin14 mmEachGSRP14BSuper Ring Remover Die Bottom14 mmEachGSRP14BSuper Ring Remover Die Support14 mmEachGSRP20CSuper Ring Remover Die Cutter20 mmEachGSRP20BSuper Ring Remover Die Bottom20 mmEachGSRP20BSuper Ring Remover Die Support20 mmEachGSRP25CSuper Ring Remover Die Cutter25 mmEachGSRP25BSuper Ring Remover Die Bottom25 mmEachGSRP25BSuper Ring Remover Die Bottom25 mmEachGSRP35CSuper Ring Remover Die Cutter35 mmEachGSRP35BSuper Ring Remover Die Bottom35 mmEachGSRP35SSuper Ring Remover Die Bottom35 mmEach	The dies offer a fair fine of marriagal replacement parts (noted selent).				
GSRP14 Super Ring Remover Tool Set 14 mm Complete Sets GSRP20 Super Ring Remover Tool Set 20 mm Complete Sets GSRP25 Super Ring Remover Tool Set 25 mm Complete Sets GSRP35 Super Ring Remover Tool Set 35 mm Complete Sets GSRP35 Super Ring Remover Tool Set 35 mm Complete Sets GSRP45 Super Ring Remover Tool Set 45 mm Complete Sets GSRP45 Super Ring Remover Tool Set 55 mm Complete Sets GSRP55 Super Ring Remover Die Set 55 mm Complete Sets GSRP14C Super Ring Remover Die Cutter 14 mm Each GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Din 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20B Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Support 25 mm Each GSRP25P Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Din 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Die Din 35 mm Each GSRP35B Super Ring Remover Die Die Din 35 mm Each GSRP35B Super Ring Remover Die Die Dio 35 mm Each GSRP35B Super Ring Remover Die Die Dio 35 mm Each GSRP35B Super Ring Remover Die Die Dio 35 mm Each GSRP35B Super Ring Remover Die Die Dio 35 mm Each GSRP35B Super Ring Remover Die Die Dio 35 mm Each GSRP35B Super Ring Remover Die Dio 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each GSRP35B	PART	DESCRIPTION	FITS RING	ORDER BY	
GSRP20 Super Ring Remover Tool Set 20 mm Complete Sets GSRP25 Super Ring Remover Tool Set 25 mm Complete Sets GSRP35 Super Ring Remover Tool Set 35 mm Complete Sets GSRP45 Super Ring Remover Tool Set 45 mm Complete Sets GSRP45 Super Ring Remover Tool Set 45 mm Complete Sets GSRP55 Super Ring Remover Tool Set 55 mm Complete Sets GSRP55 Super Ring Remover Die Cutter 14 mm Each GSRP14C Super Ring Remover Die Pin 14 mm Each GSRP14P Super Ring Remover Die Bottom 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Support 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Dit 35 mm Each GSRP35B Super Ring Remover Die Dit 35 mm Each GSRP35B Super Ring Remover Die Ditom 35 mm Each	Complete Rei	mover Tools			
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GSRP45 Super Ring Remover Tool Set 45 mm Complete Sets GSRP55 Super Ring Remover Tool Set 55 mm Complete Sets GSRP55 Super Ring Remover Die Set 55 mm Complete Sets Replacement Parts GSRP14C Super Ring Remover Die Cutter 14 mm Each GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14B Super Ring Remover Die Support 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20B Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25P Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Din 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP25	Super Ring Remover Tool Set	25 mm	Complete Sets	
GSRP55 Super Ring Remover Tool Set 55 mm Complete Sets **Replacement Parts** GSRP14C Super Ring Remover Die Cutter 14 mm Each GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP35	Super Ring Remover Tool Set	35 mm	Complete Sets	
Replacement Parts GSRP14C Super Ring Remover Die Cutter 14 mm Each GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP45	Super Ring Remover Tool Set	45 mm	Complete Sets	
GSRP14C Super Ring Remover Die Cutter 14 mm Each GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP55	Super Ring Remover Tool Set	55 mm	Complete Sets	
GSRP14P Super Ring Remover Die Pin 14 mm Each GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	Replacement	Parts			
GSRP14B Super Ring Remover Die Bottom 14 mm Each GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Cutter 25 mm Each GSRP25C Super Ring Remover Die Pin 25 mm Each GSRP25P Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP14C	Super Ring Remover Die Cutter	14 mm	Each	
GSRP14S Super Ring Remover Die Support 14 mm Each GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Cutter 25 mm Each GSRP25C Super Ring Remover Die Pin 25 mm Each GSRP25P Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP14P	Super Ring Remover Die Pin	14 mm	Each	
GSRP20C Super Ring Remover Die Cutter 20 mm Each GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Cutter 25 mm Each GSRP25C Super Ring Remover Die Pin 25 mm Each GSRP25P Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP14B	Super Ring Remover Die Bottom	14 mm	Each	
GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP14S	Super Ring Remover Die Support	14 mm	Each	
GSRP20P Super Ring Remover Die Pin 20 mm Each GSRP20B Super Ring Remover Die Bottom 20 mm Each GSRP20S Super Ring Remover Die Support 20 mm Each GSRP20S Super Ring Remover Die Cutter 25 mm Each GSRP25C Super Ring Remover Die Pin 25 mm Each GSRP25P Super Ring Remover Die Bottom 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each					
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GSRP25C Super Ring Remover Die Cutter 25 mm Each GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP25S Super Ring Remover Die Cutter 35 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP20B	Super Ring Remover Die Bottom	20 mm	Each	
GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP20S	Super Ring Remover Die Support	20 mm	Each	
GSRP25P Super Ring Remover Die Pin 25 mm Each GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP25C	Super Ring Remover Die Cutter	25 mm	Each	
GSRP25B Super Ring Remover Die Bottom 25 mm Each GSRP25S Super Ring Remover Die Support 25 mm Each GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP25P		25 mm	Each	
GSRP35C Super Ring Remover Die Cutter 35 mm Each GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP25B	Super Ring Remover Die Bottom	25 mm	Each	
GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP25S	Super Ring Remover Die Support	25 mm	Each	
GSRP35P Super Ring Remover Die Pin 35 mm Each GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP35C	Super Ring Remover Die Cutter	35 mm	Each	
GSRP35B Super Ring Remover Die Bottom 35 mm Each	GSRP35P		35 mm	Each	
	GSRP35B		35 mm	Each	
	GSRP35S			Each	





DIE CUTTER



DIE PIN



DIE BOTTOM



DIE SUPPORT



45 mm

45 mm

45 mm

45 mm

55 mm

55 mm

55 mm

55 mm

Each

Each

Each

Each

Each

Each

Each

Each

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

Super Ring Remover Die Cutter

Super Ring Remover Die Pin

Super Ring Remover Die Bottom

Super Ring Remover Die Support

Super Ring Remover Die Cutter

Super Ring Remover Die Pin

Super Ring Remover Die Bottom

Super Ring Remover Die Support

GSRP45C

GSRP45P

GSRP45B

GSRP45S

GSRP55C

GSRP55P

GSRP55B

GSRP55S



82 > Super Ring Accessories

Rutgerson Pressing Die Polishing Tools



PART	DESCRIPTION	FITS RING	ORDER BY
GSRTP10	Pressing Die Polishing Tool	10 mm	Sets
GSRTP12	Pressing Die Polishing Tool	12 mm	Sets
GSRTP14	Pressing Die Polishing Tool	14 mm	Sets
GSRTP20	Pressing Die Polishing Tool	20 mm	Sets
GSRTP25	Pressing Die Polishing Tool	25 mm	Sets
GSRTP35	Pressing Die Polishing Tool	35 mm	Sets
GSRTP45	Pressing Die Polishing Tool	45 mm	Sets
GSRTP55	Pressing Die Polishing Tool	45 mm	Sets

Rutgerson Integral Outhaul Slug Slides

These press rings integrate a Rutgerson Super Ring with large outhaul slug-slide for a strong, time saving, clew ring installation.



DART	DECODIBION	FITO DINO	FITO OLUIO	ODDED DV
PART	DESCRIPTION	FITS RING	FITS SLUG	ORDER BY
GA1207	Integral Outhaul Slug Slides	GSR14	7 mm	Each
GA1407	Integral Outhaul Slug Slides	GSR20	7 mm	Each
GA1409	Integral Outhaul Slug Slides	GSR20	9 mm	Each
GA1412	Integral Outhaul Slug Slides	GSR20	12 mm	Each
GA1609	Integral Outhaul Slug Slides	GSR25	9 mm	Each
GA1612	Integral Outhaul Slug Slides	GSR25	12 mm	Each

Rutgerson Super Ring D-Ring Attachments



These Rutgerson Super Rings with attached D-Rings have a number of great uses for those who think outside the box. They can be used as a means of attaching blocks for single line reefing, or adding extra strong corners to boat covers or canopies.

PART	DESCRIPTION	SIZE	FITS RING	ORDER BY
GA14151	Super Ring D-Ring Attachment	5 mm	GSR20	Each
GA14127	Super Ring D-Ring Attachment	6 mm	GSR20	Each
GA16151	Super Ring D-Ring Attachment	5 mm	GSR25	Each
GA16127	Super Ring D-Ring Attachment	6 mm	GSR25	Each

Rutgerson Super Ring Spinnaker Swivel Attachments



These attachments integrate a stainless steel spinnaker swivel with a Rutgerson Super Ring providing an excellent solution for traditional or older boats that do not have swivels on their halyards.

PART	DESCRIPTION	FITS RING	ORDER BY
GA1225	Super Ring Spinnaker Swivel Attachment	GSR14	Each
GA1425	Super Ring Spinnaker Swivel Attachment	GSR20	Each
GA1625	Super Ring Spinnaker Swivel Attachment	GSR25	Each



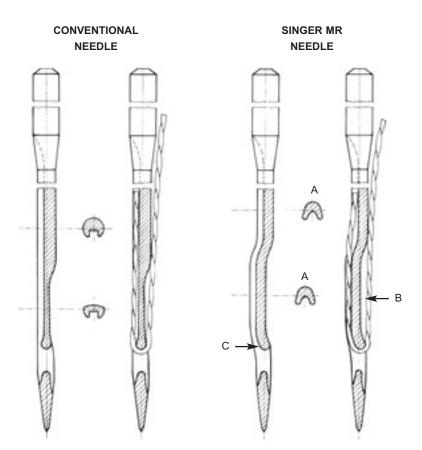
CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Sewing Machine Needles < 83

Singer MR Sewing Machine Needles

Challenge is pleased to be appointed exclusive distributor to sailmaking for the new Singer MR Sewing Machine Needles. Sailmakers who have used MR's have preferred them over conventional needles when sewing Dacron, Kevlar, Mylar, Canvas materials, or even Nylon, for the following reasons:

- Less needle breakage because buckling strength is increased on average by 90%.
- Skipping is reduced because the clearance above the eye is longer and deeper; the needle groove is continued at full depth all the way to the eye, protecting the from pinching, thus permitting a better loop formation; and the needle is stiffer, reducing fluttering and permitting a better loop seizure.
- Decreased needle inventory and simplified needle ordering through interchangeability of various sizes and types of needles.
- Improved seam appearance because a smaller diameter needle can replace a larger ordinary needle making penetrations which are less visible.



DESIGN FEATURES

- A Same needle crosssection in both the blade and CAE area increases buckling strength by an average of 90%.
- B Longer and deeper **CAE** creates more free space for the hook point to pick up a thread loop.
- C Deep thread groove continued through to eye area offers better thread protection and improves thread handling.

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



84 > Sewing Machine Needles

Conventional Metric (Singer) Needle Sizes Replaced by MR Sizes

			65 – 70 (9 – 10)	75 – 80 (11 – 12)	85 – 90 (13 – 14)	105 – 110 (17 – 18)	120 - 130 (19 - 21)	140 - 160 (22 - 23)	180 – 200 (24 – 25)
Sewing Machine	Needle System	Catalog Number	MR 2.0 Part	MR 2.5 Part	MR 3.0 Part	MR 4.0 Part	MR 5.0 Part	MR 6.0 Part	MR 7.0 Part
Adler 67	134	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	_	_
Adler 167	134	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Bernina 217	_	_	TN15152	_	TN15153	TN15154	TN15155	TN15156	_
Consew 99	16x95	1515-01	TN15152	_	TN15153	TN15154	TN15155	TN15156	_
Consew 272	135x5	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Consew 206RB	_	_	TN33552	TN335525	TN33553	TN33554	TN33555	TN33556	_
Juki LU562	DP/135x17	3355-01	TN33552	TN335525	TN33553	TN33554	TN33555	TN33556	TN33557
Juki LH512	DP/135x5	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Pfaff 145	134	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Pfaff 545	134	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Singer 107	135x5	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Singer 111W100	135x5	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Singer 111W112	135x17	3355-01	TN33552	TN335525	TN33553	TN33554	TN33555	TN33556	TN33557
Singer 167	135x5	1955-0	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Singer 211G151	135x7	1955-01	TN19552	TN195525	TN19553	TN19554	TN19555	TN19556	_
Singer 211G151	135x17	3355-01	TN33552	TN335525	TN33553	TN33554	TN33555	TN33556	TN33557
Singer 457	135x53	1906-01	_	_	TN19063	TN19064	_	_	_



Handsewing Needles & Palms < 85

W. Smith & Son Reduced Edge Sailmakers' Needles

These hand-sewing needles are made by hand to highest quality standards. There unique tri-angular shaped reduced edge helps the needle cut it's way through the fabric with ease while the special rounded thread eye is designed not to cut the twine.

PART	DESCRIPTION	SIZE	LENGTH	QTY/PKG	ORDER BY
TNE12	Reduced Edge Needle	#12	3 1/4"	25	Pkg
TNE13	Reduced Edge Needle	#13	3"	25	Pkg
TNE14	Reduced Edge Needle	#14	2 3/4"	25	Pkg
TNE15	Reduced Edge Needle	#15	2 1/2"	25	Pkg
TNE16	Reduced Edge Needle	#16	2 3/8"	25	Pkg
TNE17	Reduced Edge Needle	#17	2 9/16"	25	Pkg
TNE18	Reduced Edge Needle	#18	2 1/4"	25	Pkg
TNE19	Reduced Edge Needle	#19	1 15/16"	25	Pkg
TNEA	Reduced Edge Needle	#13 – #18	Assorted	5	Pkg
TNET	Reduced Edge Needle	#14 – #18	Assorted	20	Tubes





Swivel Bench Hooks

A more traditional sailmaking tool these hooks still are a useful for holding and tensioning fabric or rope while being hand sewn.

PART	DESCRIPTION	SIZE	ORDER BY
TBEN	Swivel Bench Hook	One Size	Each



Sailmakers' Palms

High quality handcrafted palms. Seaming Palms feature a fine thimble pattern for small to medium sized needles. Roping Palms feature a large thimble pattern for medium to large needles and raised leather band around the thumb-hole to wrap thread around thumb for pulling and tensioning. Adjustable Palms are lighter duty featuring a seaming thimble and semi-raised thumb hole which can be used for roping in a pinch. Best quality palms are professional grade and will last a life-time, while adjustable palms are inexpensive yet fully fuctional. Perfect for every sailmakers repair-bag.

PART	PALM TYPE	HAND	ORDER BY
TPASR	Best Quality Seaming Palm	Right	Each
TPASL	Best Quality Seaming Palm	Left	Each
TPARR	Best Quality Roping Palm	Right	Each
TPARL	Best Quality Roping Palm	Left	Each
TPAAR	Adjustable Palm	Right	Each
TPAAL	Adjustable Palm	Left	Each







Sail Repair Kit

The perfect start to any sail or canvas repair kit. Kit features a basic palm, assortment of five needles, and spool of round pre-waxed twine.

PART	DESCRIPTION	ORDER BY
TRK	Sewing Palm, Assorted Needles, Thread	Sets



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

Cloth Clamps, Mallets & Knives

DESCRIPTION

Cloth Clamps



Quality metal spring loaded clamps with rubber tips. Perfect for holding cloth together in preparation for running through sewing machine. Almost like an extra set of hands.

PART	DESCRIPTION	JAW OPENS	LENGTH	ORDER BY
TCC1	Cloth Clamps	1 3/8"	4 1/8"	Each
TCC2	Cloth Clamps	2 1/8"	6 1/4"	Each
TCC3	Cloth Clamps	3 5/8"	9 1/8"	Each

Rawhide Mallets



Weighted mallets are the best tool for hole cutting and grommet setting. Mallets feature bronze weighted head, replaceable wooden handle and rawhide hitting surface.

WEIGHT

ODDED BY

PARI	DESCRIPTION	SIZE	WEIGHT	ORDER BY
TM0	Rawhide Mallet	#0	1 1/2 lbs	Each
TM1	Rawhide Mallet	#1	2 1/2 lbs	Each
TM2	Rawhide Mallet	#2	4 1/2 lbs	Each
TM3	Rawhide Mallet	#3	6 lbs	Each
TM4	Rawhide Mallet	#4	7 1/2 lbs	Each
TMH	Replacement Mallet Handle	#0 – #4		Each
TM0R	Replacement Rawhide Head	#0		Each
TM1R	Replacement Rawhide Head	#1		Each
TM2R	Replacement Rawhide Head	#2		Each
TM3R	Replacement Rawhide Head	#3		Each
TM4R	Replacement Rawhide Head	#4		Each

Rawhide Hammer



Versatile tool. Can be used for cutting hole with punches, setting grommets, pounding line to loosen it or any other application that requires a non-metal pounding surface.

PART	DESCRIPTION	FACE DIA	WEIGHT	ORDER BY
THAM2	Rawhide Hammer	1 3/4"	2 3/4 lbs	Each
THAM2R	Replacement Head	1 3/4"		Sets

Best Quality Deluxe Seam Rippers



Take out stitches quickly with these seam rippers. Large handles provide a good grip.

PART	DESCRIPTION	QTY/PKG	ORDER BY
TSEA1	Deluxe Seam Ripper	10	Each

Utility Knife with Safety Guard



Multipurpose blunt-tip utility knife. Especially useful for tapering rope ends for splicing.

PART	DESCRIPTION	ORDER BY
TKN	Utility Knife w/Safety Guard	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Marks Best Quality Shears < 87

Knee Pads

Rubber knee pads with elastic straps, hook and fastened.

PART	DESCRIPTION	SIZE	ORDER BY
TKP	Knee Pads	One Size	Sets



Marks Shears – Finest Quality, All-Knife Edge

Works well on Kevlar! We researched all lines of sailmaking and canvas shears available, including Wiss, and concluded that MARKS is the best quality. They are made the good old fashioned way.

Not just a few, but all the shears below have the higher quality Nickel-Plated finish and ultra-sharp, knife-edge, where one blade has been ground to a very sharp knife-edge angle for easier cutting.

PART	DESCRIPTION	SIZE	FINISH	MARKS#	ORDER BY
T4557	Bent Trimmers	7"	Nickel-Plated	455-7	Each
T4558	Bent Trimmers	8"	Nickel-Plated	455-8	Each
T4558L	Bent Trimmers Left-Handed	8"	Nickel-Plated	455-8LH	Each
T4559	Bent Trimmers	9"	Nickel-Plated	455-9	Each
T40010	Bent Trimmers	10"	Nickel-Plated	400-10	Each
T40012	Bent Trimmers	12"	Nickel-Plated	400-12	Each
T406	Dressmaker Shear	8"	Nickel-Plated	40-6	Each
T410P	Pinking Shear	10"	Nickel-Plated	410-P	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Shears, Clips & Sharpeners

Marks Leveraged Long Handled Shears



Long handle and shorter blade for better leverage. Great for cutting heavy materials.

PART	DESCRIPTION	SIZE	FINISH	MARKS #	ORDER BY
T3568	Leveraged Sheers	8"	Nickle-Plated	456-81	Each

Marks Premium Lightweight Dressmaker Shears



Long handle and shorter blade with a knife edge.

PART	DESCRIPTION	SIZE	FINISH	MARKS #	ORDER BY
T690	Dressmaker Shears	9"	Stainless/Blk Grips	690	Each

Marks Premium Lightweight Thread Clips



Ecomomical with plastic handles and metal blades at the same time at the machine.

PART	DESCRIPTION	SIZE	FINISH	MARKS #	ORDER BY
T601	Thread Clips	One	Stainless/Blk Grips	601	Each
T601RB	Blades	One		601-BS	Each

Marks Knife-Edge Thread Clips



Durable and rugged. A worth while investment for your high use machines.

PART	DESCRIPTION	SIZE	FINISH	MARKS #	ORDER BY
T301C	Thread Clips	One	Brushed Chrome	301-C	Each

Marks "Nippers" Small Shears



More versatile than straight thread clips. Use on thread and small amounts of light fabric.

PART	DESCRIPTION	SIZE	FINISH	MARKS #	ORDER BY
T668	Nippers	One	Stainless/Blk Grips	668	Each

Shear Sharpeners



HARDWARE

A must for any loft or canvas shop because sharp shears cut faster and are more accurate. Do it yourself and save money and time. Full Shear Sharpener includes stand for mounting on bench-top plus medium and fine sharpening stones. Replacement parts listed below.

PART	DESCRIPTION	SPECS	ORDER BY
TSS	Shear Sharpeners	Complete Sharpener	Each
TSSBP	Replacement Ball Post		Each
TSSR1	Replacement Stone Holder	Rear	Each
TSSR2	Replacement Stone Holder	Front	Each
TSSH	Replacement Handle and Shaft		Each
TSSF	Replacement Replacement Stone	Fine	Each
TSSM	Replacement Replacement Stone	Medium	Each

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Wheel Cutters & Hot Knives < 89

Wheel Cutters

A popular alternative to shears for cutting a varity of fabrics quickly and accurately. These cutters work best when backed by a vinyl cutting pad available at better office or art supply stores.

PART	TYPE	LENGTH	BLADE DIA	QTY/PKG	ORDER BY
TW1	ST 800 Cutter	7"	1 1/6"	1	Each
TW2	ST 810 Cutter	7 5/8"	1 3/4"	1	Each
TWR1	ST800 Blades		1 1/16"	2	Pkg
TWR2	ST810 Blades		1 3/4"	1	Pkg



Ungar Hot Knife Handle

This popular hot knife features a red handle with black grip. Choose from a varity of tip options listed below (hot knife and tips sold separately).

PART	DESCRIPTION	SIZE	ORDER BY
THKUHA	Hot Knife Handle	One Size	Each



Ungar Hot Knife Heating Element

A good choice for high use applications where tips must remain sharp. Dull tips are easily replaced with THKU100 (listed below) to keep your work on point.

PART	DESCRIPTION	SIZE	ORDER BY
THKUHP	HP Heating Element	#37	Each

Please Note: The heating element in Ungar Hot Knife equipment is replaceable, consumable and fragile (like a light bulb it will burn out if dropped or subjected to shock), therefore, they are not generally warranted by the manufacturer beyond initial operation.



Ungar Hot Knife Tips

Pick the right tip for the job – Nyla-cut tips integrate heating element and flat blade tip in one unit. Basting tips offer very detailed control for cutting more elaborate designs. Bronze tips are a great option when tips must be replaced often to maintain sharpness.

PART	DESCRIPTION	SIZE	ORDER BY
THKUN	Nyla Cut Tip (Complete)	#65	Each
THKUB	Basting Tip (Complete)	#33	Each
THKU100	Bronze Tip	#100	Each



Ungar Hot Knife Holder

Solid metal cage-holder provides a safe way to keep your hot knife away from your work when not in immediate use.

PART	DESCRIPTION	SIZE	ORDER BY
THKUHH	Hot Knife Holder	One Size	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Hot Knife Heat Control Units



Unit adjusts heat level of hot tools in order to prolong life of tips.

PART	DESCRIPTION	SIZE	ORDER BY
THKC	Hot Knife Heat Control Unit	One Size	Each

Hot Tool Heavy-Duty Hot Knife

60 watt – heats to 1050 degrees F.



PART	DESCRIPTION	SIZE	ORDER BY
THK60	Heavy Duty Hot Knife (w/o tip)	One Size	Each
THK60T	Heavy Duty Hot Knife Tip	One Size	Each

Portasol Refillable Butane Hot Knife



Newly redesigned, this portable hot knife is self-igniting and can achieve temperatures of up to 1076 degrees Fahrenheit. Kit comes with hot knife, soldering, blow-torch, and hot air tips along with soldering flux cup/holder, and hard plastic storage case.



PART	DESCRIPTION	SIZE	ORDER BY	
THP1K	HP1K Butane Hot Knife Kit		Each	
THP1	Butane Hot Knife (w/o tip)	One Size	Each	
THT7	Butane Hot Knife Tip	One Size	Each	

Engel Heat Cutter and Equipment



This quality German made hot knife is the perfect tool for cutting and sealing synthetic fabrics, ropes and webbing. Durable nylon body is highly inpact resistant and heavyduty transformer heats up fast and is designed to last for years. Available in 110V or 220V models draws 70 watts.

PART	DESCRIPTION	VOLTS	ORDER BY
THKEC1	European Heat Cutter	220v	Each
THKEC2	US Heat Cutter	110v	Each
	(heavy duty grey nylon)		
THKEB	Blade Only		Each
THKES	HSO Blade		Each
	(for precise cutting)		
THKEF	Cutting Foot		Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Staplers & Staple Removers < 91

Sailmakers' Staplers

Pliers-style staplers are a handy time-saver. No need to have floor or bottom surface to push against to set staples. Just squeeze and go. Perfect tool for stapling tapes, binding and seams. Long-arm stapler extends your reach.

		STAPLE	STAPLE	USES	ORDER
PART	DESCRIPTION	DEPTH	WIDTH	STAPLE	BY
TST3	P3 Staple Gun	1/4"	3/8"	TSP14	Each
TST6C	P6C Staple Gun	1/4"	7/16"	TSP1914	Each
			or 3/8"	or TSP1938	
TSTL	B5-185 Long Arm (18" hinge to staple)	1/4"	1/2"	TSP45	Each



Staples

Specific staples for Sailmakers' Staplers (listed above).

		STAPLE	STAPLE	USE	QTY/	PKG/	ORDER
PART	TYPE	DEPTH	WIDTH	WITH	PKG	CASE	BY
TSP14	SP19 Staples	1/4"	3/8"	TST3	5000	40	Pkg
TSP45	SBS19 Staples	1/4"	1/2"	TSTL	5000	25	Pkg
TSP1914	SPC5019 Staples	1/4"	7/16"	TST6C	5000	20	Pkg
TSP1938	SPC5019 Staples	3/8"	7/16"	TST6C	5000	20	Pkg



Lever-Style Staple Remover

Lever-style staple removers work better and removes staples more cleanly that old claw-style staple removers. Regular style works well in most applications. Deluxe model features larger handle for less hand fatigue.

PART	DESCRIPTION	QTY/PKG	ORDER BY
TSR	Lever-Style Staple Remover	10	Each
TSR1	Deluxe Lever-Style Staple Remover	10	Each



Stabbing Awls

Durable wooden handle and hardened steel points make these awls excellent tool for variety of purposes. Points are replaceable and inter-changeable.

PART	DESCRIPTION	QTY/PKG	ORDER BY
TAWLS	Stabbing Awl with Wrench	1	Each
TAWL2	2 1/2" Stabbing Awl Point	12	Pkg
TAWL3	3" Stabbing Awl Point	12	Pkg



Yellow Scratch Awls

Hard plastic handles with hardened steel points. Great for picking sails, battens and heaver fabrics to floors.

PART	DESCRIPTION	LENGTH	QTY/PKG	ORDER BY
TAWL1	#1 Yellow Scratch Awl	2 1/2"	12	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



92 > Pushpins & Measuring Tapes

Mushroom Pushpins



Special mushroom shaped head makes it easy to push pins in with greater force. The larger gripping surface makes them easier to remove. Reinforced crown holds special hardened steel pin.

PART	DESCRIPTION	FINISH	QTY/PKG	ORDER BY
TPIM	Mushroom Pushpin	High Visibility Red	100	Pkg
TPIN	Mushroom Pushpin	Black	100	Pkg

Moore Pushpins



A basic old-reliable push-pin. Aluminum heads hold pin better than plastic and won't shatter if they require an extra tap with a hammer or tool.

PART	DESCRIPTION	FINISH	SHAFT	QTY/PKG	ORDER BY
TPIA	Pushpin	Aluminum	5/8"	100	Pkg

Sailmakers' Measuring Tapes



Steel blade for accurate measurement features both foot/inches and metric scales.

		BLADE	BLADE		END	ORDER
PART	DESCRIPTION	LENGTH	WIDTH	UNITS	FITTING	BY
TM43	Measuring Tape	26 ft	1"	Top: ft, in, 32nds	3 Rivet	Each
		(8 m)		Btm: m, cm, mm	Endhook	
TM65	Measuring Tape	100 ft	3/8"	Top: ft, in, 8ths	Folding	Each
		(30 m)		Btm: m, cm, mm	Endhook	

Replacement Measuring Tape Blades



PART	DESCRIPTION	LENGTH	WIDTH	FITS UNIT	ORDER BY
TMR65	Replacement Steel Blade	100 ft (30 m)	3/8"	TM65	Each

Aluminum Rules



Sturdy solid aluminum rulers. Six foot rule graduated in inches only. Meter rule is graduated in both centimeters and inches.

PART	DESCRIPTION	LENGTH	WIDTH	UNITS	ORDER BY
TMS	Aluminum Rule	1 m	1 1/4"	in / cm	Each
TMR	Aluminum Rule	6 ft	2"	in	Each

Computer Plotter Pens



Special pressure-filled pens provide even and consistent ink delivery to a variety of fabrics even when used vertically or up-side down. Same pens use by astronauts in weightlessness.

PART	DESCRIPTION	QTY/PKG	ORDER BY
TPP	Computer Plotter Pressure Pen Refill	12	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Pattern & Window Material <93

Pattern Material

Ridged yet easy to cut this heavy-duty opaque mylar is perfect for making templates for a wide range of uses.

				YD/	ORDER
PART	DESCRIPTION	THCK	WIDTH	ROLL	BY
YPAT	Pattern Material	7.5 mil	54"	50	Rolls
YPAT60	Pattern Material	7.5 mil	60"	50	Rolls



Pattern Marking Tape

Thick and heavy duty, this tape is the right product for marking important details on your patterns or templates.

			YD/	ROLLS/	ORDER
PART	DESCRIPTION	WIDTH	ROLL	CASE	BY
YPATP2	Pattern Marking Tape	1/2"	60	72	Rolls
YPATP3	Pattern Marking Tape	3/4"	60	48	Rolls



Pattern Joining Tape

This tape is formulated to hold to surface of pattern mylar and not to slip or shift.

			YD/	ROLLS/	ORDER
PART	DESCRIPTION	WIDTH	ROLL	CASE	BY
YPATJJ3	Pattern Joining Tape	3/4"	72	48	Rolls



Flexiclear Rolls

High visibility roll form vinyl window material. Individually packaged in their own dispenser box - suspended to protect roll from damage.

				YD/	ORDER
PART	DESCRIPTION	THCK	WIDTH	ROLL	BY
YFL16	Flexiclear Roll	.016	54"	25	Rolls
YFL19	Flexiclear Roll	.019	54"	20	Rolls
YFL19R	Flexiclear Roll	highest quality (non-interleaved)	54"	30	Rolls



Flexiclear Sheets

Highest visibility vinyl window material.

				SHEETS/	ORDER
PART	DESCRIPTION	SIZE	THCK	DRUM	BY
YFS1	Flexiclear Sheet	24" x 54"	.020	100	Sheets
YFS2	Flexiclear Sheet	29" x 68"	.020	60	Sheets
YFS3	Flexiclear Sheet	54" x 110"	.030	15	Sheets
YFS4	Flexiclear Sheet	24" x 54"	.040	35	Sheets
YFS5	Flexiclear Sheet	29" x 62"	.040	35	Sheets
YFS6	Flexiclear Sheet	54" x 110"	.040	10	Sheets



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



94 > Window Material

Strataglass



Strataglass is a premium, flexible vinyl sheet engineered to resist both the damaging effects from the sun's rays and scratching from handling. Strata's unique scratch resistant coating prevents fine line scratches caused by washing, drying, rolling and abrasion from roll-up straps. The coating blocks these elements from etching into the surface of the vinyl allowing windows to remain clearer longer, so you won't need to replace the curtains as often. Plus, larger sheets make it less expensive per foot.

	7	THICKNES	S	SIZE	QTY/	ORDER
PART	DESCRIPTION	(MIL)	COLOR	(IN)	PKG	BY
YFG30	Stataglass Sheet	30	Clear	54 x 111	5	Sheet
YFG	Stataglass Sheet	40	Clear	54 x 111	5	Sheet
YFG60	Stataglass Sheet	60	Clear	54 x 111	3	Sheet
YFGS30	Stataglass Sheet	30	Lt Smoke	54 x 111	5	Sheet
YFGS40	Stataglass Sheet	40	Lt Smoke	54 x 111	5	Sheet
YFGDS30	Stataglass Sheet	30	Dk Smoke	54 x 111	5	Sheet
YFGDS40	Stataglass Sheet	40	Dk Smoke	54 x 111	5	Sheet



Crystal Clear 20/20



Crystal Clear 20/20 is made from the finest roll vinyl stock available in the world, resulting in a product that, with the exception of Strataglass, offers superior visually clarity. Crystal Clear 20/20 is the largest press-polished sheet available in the world (54" x 111") which is 17% larger than the industry standard (50" x 100") resulting in significantly less waste in fabrication, and less expensive per square foot.

	T	HICKNES	S	SIZE	QTY/	ORDER
PART	DESCRIPTION	(MIL)	COLOR	(IN)	PKG	BY
YFCC30	Crystal Clear 20/20	30	Clear	54 x 111	5	Sheet
YFCC40	Crystal Clear 20/20	40	Clear	54 x 111	5	Sheet



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Protective Films & Solutions < 95

Sea-Flex Window Vinyl

Marine-grade window in clear and smoke tint. Sea-Flex plus features special scratchresistant coatings to keep vinyl looking clear longer.

			THICKNES	S	QTY/	ORDER
PART	DESCRIPTION	COLOR	(MIL)	SIZE	PKG	BY
YFCF30	Sea-Flex Vinyl	Clear	30	50" x 100"	15	Sheet
YFCFS30	Sea-Flex Vinyl	Smoke	30	50" x 100"	15	Sheet
YFCF40	Sea-Flex Vinyl	Clear	40	50" x 100"	10	Sheet
YFCFS40	Sea-Flex Vinyl	Smoke	40	50" x 100"	10	Sheet
YFCF40+	Sea-Flex Plus Vinyl	Clear	40	50" x 100"	10	Sheet



Mono Film

Optically clear polyester film for windsurfers.

			THICKNESS	;	YD/	ORDER
PART	DESCRIPTION	COLOR	(MIL)	WIDTH	ROLL	BY
YMW	Mono Film	Clear	4.0	54"	50	Yards
YMW5	Mono Film	Clear	5.0	54"	50	Yards
YMW7	Mono Film	Clear	7.0	54"	50	Yards



Tedlar® UV Film

Flexible, highly UV resistant Tedlar film coated with pressure sensitive adhesive on one side. Use to protect exposed areas on roller furling sails. 1.92 oz/sq yd.

PART	DESCRIPTION	COLOR	WIDTH	YD/ROLL	ORDER BY
YTE1	Tedlar UV Film	Clear	1"	50	Rolls
YTE2	Tedlar UV Film	Clear	2"	50	Rolls
YTE18	Tedlar UV Film	Clear	18"	50	Rolls
YTE23	Tedlar UV Film	Clear	23"	50	Yards
YTE27	Tedlar UV Film	Clear	27"	50	Rolls
YTE54	Tedlar UV Film	Clear	54"	50	Yards



Leather

Very soft and pliable. Easy to form around corners.

PART	DESCRIPTION	AVG SQ FT/HIDE	ORDER BY
YLEAP	Heavy Chrome Pearl Leather	20	Sq Ft
YLEAS	Special Thin Pearl Leather	20	Sq Ft



Plastiseam

Liquid plastic to protect seams from sun, water and abrasion.

PART	DESCRIPTION	VOLUME	CONTAINER	QTY/CASE	ORDER BY
LPS12	Plastiseam	12 oz	Can	24	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Protectants & Cleaners

Aqua-Tite™



96 >

Premium grade, heavy duty, silicone based, water repellent solution to restore the water repellancy of cotton and synthetic fabrics. Can be used on flame resistant fabrics without affecting its properties. Neutral color is suitable for all colors (albeit it may impart a slightly darker, richer tone to some lighter color fabrics).

PART	DESCRIPTION	VOLUME	CONTAINER	COVERAGE	ORDER BY
LAQUA4	Aqua-Tite	1 Quart	Spray Bottle	125 – 175 sq ft	Each
LAQUA1	Aqua-Tite	1 Gallon	Jug	500 - 700 sq ft	Each

AquaBlock



Developed to protect and extend the life of marine fabrics including acrylics, Sunbrella, nylon, cotton, canvas, polyester, vinyl and leather. Helps prevent damage from moisture, mildew, oil and grease, bird droppings and airborne pollutants. Perfect for covers, bimini tops, dodgers, vinyl seats, cushions, carpets, tents, awnings and patio furniture.

PART	DESCRIPTION	VOLUME	CONTAINER	ORDER BY
LMCT90-22	AquaBlock	22 oz	Spray Bottle	Each
LMCT90	AquaBlock	1 Gallon	Jug	Each

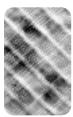
BioShield AM 500™



This anti-mold and mildew protectant molecularly bonds to the surface of sails and prevents the growth and micro-organisms that cause mold, mildew, stains and odors. Can be on most canvas, vinyl, plastic upholstery fabrics and indoor/outdoor carpet.

PART	DESCRIPTION	VOLUME	CONTAINER	ORDER BY
LAM500Q	BioShield AM 500	1 Quart	Bottle	Each
LAM500	BioShield AM 500	1 Gallon	Bottle	Each

Sail Cleaner and Mildew Remover





BEFORE AFTER CS530 CS530

Dry powder chemical formula developed exclusively for cleaning sails. Unlike detergents, CS-530 was designed especially for mildew and algae stains, and especially for Laminates with mildew stain under the taffeta. Unlike chlorine bleach, CS-530 is safe and effective for all types of sail material, including Dacron, Nylon, Kevlar, Acrylics and colored sails. Warning: avoid using on leather and leather trim.

PART	DESCRIPTION	VOLUME	CONTAINER	ORDER BY
CS530X-20	Mildew Cleaner CS-530	20 lb	Box	Each
CS530X-40	Mildew Cleaner CS-530	40 lb	Box	Each

DOSAGE GUIDANCE

Gallons	1	20	40	80	100	120	160
Dacron, Nylon, Acrylics, etc.	1 oz	20 oz	40 oz				
		3 c	5 c	10 c	12 c	15 c	20 c
		2 lb	3 lb	5 lb	6 lb	7.5 lb	10 lb
Laminates	3 oz	60 oz	120 oz				
		8 c	15 c	30 c	38 c	45 c	60 c
		4 lb	7 lb	15 lb	18 lb	22 lb	30 lb



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Nylon & Warp Oriented Tapes < 97

Nylon Tapes

Nylon tapes are precision heat-slit from our 1.5 oz Ripstop Spinnaker Sailcloth in warp direction in an assortment of colors. Excellent choice for small, light weight spinnaker leech and foot tapes.

PART	DESCRIPTION	WEIGHT	WIDTH	COLOR	ORDER BY
P1W1	Nylon Tape	1.5 oz	1"	White	Yards
P1W1H	Nylon Tape	1.5 oz	1 1/2"	White	Yards
P1W2	Nylon Tape	1.5 oz	2"	White	Yards
P1R1	Nylon Tape	1.5 oz	1"	Red	Yards
P1R1H	Nylon Tape	1.5 oz	1 1/2"	Red	Yards
P1R2	Nylon Tape	1.5 oz	2"	Red	Yards
P1B1	Nylon Tape	1.5 oz	1"	Dark Blue	Yards
P1B1H	Nylon Tape	1.5 oz	1 1/2"	Dark Blue	Yards
P1B2	Nylon Tape	1.5 oz	2"	Dark Blue	Yards
P1G1	Nylon Tape	1.5 oz	1"	Green	Yards
P1G1H	Nylon Tape	1.5 oz	1 1/2"	Green	Yards
P1G2	Nylon Tape	1.5 oz	2"	Green	Yards
P1Y1H	Nylon Tape	1.5 oz	1 1/2"	Yellow	Yards
P1Y2	Nylon Tape	1.5 oz	2"	Yellow	Yards
P10B2	Nylon Tape	1.5 oz	2"	Ocean Blue	Yards
P1P2	Nylon Tape	1.5 oz	2"	Purple	Yards



Warp Oriented Tapes

Precision heat-slit from Challenge's warp oriented sailcloth, these tapes have extra warp strength and lower stretch that regular Dacron tapes. Will not pucker when sewn!

PART	DESCRIPTION	WEIGHT	WIDTH	COLOR	ORDER BY
PW56	Warp Oriented Tape	5.1 oz	6"	Natural	Yards
PW59	Warp Oriented Tape	5.1 oz	9"	Natural	Yards
PW512	Warp Oriented Tape	5.1 oz	12"	Natural	Yards
PW66	Warp Oriented Tape	6.1 oz	6"	Natural	Yards
PW69	Warp Oriented Tape	6.1 oz	9"	Natural	Yards
PW612	Warp Oriented Tape	6.1 oz	12"	Natural	Yards
PW76	Warp Oriented Tape	7.1 oz	6"	Natural	Yards
PW79	Warp Oriented Tape	7.1 oz	9"	Natural	Yards
PW712	Warp Oriented Tape	7.1 oz	12"	Natural	Yards



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



Dacron & Pre-folded Tapes

WIDTH

1"

1 1/2"

2"

Dactape

PART

P41

P42

P41H

WEIGHT

4 oz

4 oz

4 oz

4 oz Dactapes

Heat slit polyester sailcloth tape. Available in "natural" color. Please order by yard. Dactape works well with the Rutgerson Super Tape Folder (pg 99). Pre-folded Dactapes are hard creased and rewound on cores or loose in box, please specify.

PART

P51

P52

P51H

P52Q

P52H

P53H

P54H

P53

P54

P55

P56

5 oz Dactapes

5 oz

WEIGHT WIDTH

1"

1 1/2"

2"

2 1/4"

2 1/2"

3"

3 1/2"

4"

4 1/2"

5"

6"

AVAILABLE

FOLDED

No

No

Yes

No

Yes

Yes

No

Yes

No

Yes

Yes

AVAILABLE

FOLDED

No

No

Yes

	P42Q	4 oz	2 1/4"	No
	P42H	4 oz	2 1/2"	Yes
	P43	4 oz	3"	Yes
	P43H	4 oz	3 1/2"	No
	P44	4 oz	4"	Yes
Contract of the Contract of th	P44H	4 oz	4 1/2"	No
	P45	4 oz	5"	No
	P45H	4 oz	5 1/2"	No
	P46	4 oz	6"	No





	. 0-	•		. 00	0 02	•	
				P59	5 oz	9"	No
6 oz Da	ctapes			<u>7 oz Da</u>	<u>ctapes</u>		
P61	6 oz	1"	No				
P61H	6 oz	1 1/2"	No	P71H	7 oz	1 1/2"	No
P62	6 oz	2"	Yes	P72	7 oz	2"	Yes
P62Q	6 oz	2 1/4"	No	P72Q	7 oz	2 1/4"	No
P62H	6 oz	2 1/2"	Yes	P72H	7 oz	2 1/2"	Yes
P63	6 oz	3"	Yes	P73	7 oz	3"	Yes
P63H	6 oz	3 1/2"	No	P73H	7 oz	3 1/2"	No
P64	6 oz	4"	Yes	P74	7 oz	4"	Yes
P64H	6 oz	4 1/2"	No	P74H	7 oz	4 1/2"	No
P64R	6 oz	4 3/4"	No				
P65	6 oz	5"	Yes	P75	7 oz	5"	Yes
P66	6 oz	6"	Yes	P76	7 oz	6"	Yes
8 oz Da	ctapes			9 oz Da	ctapes		
P81	8 oz	1"	No	P91	9 oz	1"	No
P81H	8 oz	1 1/2"	No				
P82	8 oz	2"	Yes	P92	9 oz	2"	Yes
P82Q	8 oz	2 1/4"	No				
P82H	8 oz	2 1/2"	Yes	P92H	9 oz	2 1/2"	Yes
P83	8 oz	3"	Yes	P93	9 oz	3"	Yes
P83Q	8 oz	2 1/4"	No				
P83H	8 oz	3 1/2"	No	P93H	9 oz	3 1/2"	No
P84	8 oz	4"	Yes	P94	9 oz	4"	Yes
P84H	8 oz	4 1/2"	No				
P84R	8 oz	4 3/4"	No				
P85	8 oz	5"	Yes	P95	9 oz	5"	Yes
P86	8 oz	6"	Yes	P96	9 oz	6"	Yes



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Specialty Tapes & Folder < 99

Rutgerson Super Tape Folder

Helps reduce tape creasing time. Very simple design makes this tape folder easy to use and adjusts to fold a variety of different tapes up to 6 inches wide.

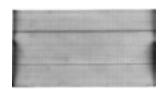
PART	DESCRIPTION	SIZE	TAPE WIDTH	ORDER BY
TAPEF	Tape Folder	One Size	up to 6"	Each
TAPEF06	Replacement Plate	6 mm	up to 6"	Each
TAPEF10	Replacement Plate	10 mm	up to 6"	Each



Super Glide Tape

Eight ounce tape with raised warp mono-cord greatly reduces friction on boltropes for easier raising and lowering of sails. Also perfect as boltrope reinforcement in higher chafe areas on boltropes like Cunninghams, heads and clews.

PART	DESCRIPTION	WEIGHT	WIDTH	COLOR	ORDER BY
PSG	Super Glide Tape	8 oz	4 5/8"	White	Yards



Colored Polyester Tapes

Precision heat-slit from Challenge's 3.8 oz colored fabric. Preferred by many sailmakers for spinnakers tapes or dinghy tapes.

PART	DESCRIPTION	WEIGHT	WIDTH	COLOR	ORDER BY
P4R1	Polyester Tape	3.8 oz	1"	Red	Yards
P4R1H	Polyester Tape	3.8 oz	1 1/2"	Red	Yards
P4R2	Polyester Tape	3.8 oz	2"	Red	Yards
P4R3	Polyester Tape	3.8 oz	3"	Red	Yards
P4R4	Polyester Tape	3.8 oz	4"	Red	Yards
P4B1	Polyester Tape	3.8 oz	1"	Dark Blue	Yards
P4B1H	Polyester Tape	3.8 oz	1 1/2"	Dark Blue	Yards
P4B2	Polyester Tape	3.8 oz	2"	Dark Blue	Yards
P4B3	Polyester Tape	3.8 oz	3"	Dark Blue	Yards
P4B4	Polyester Tape	3.8 oz	4"	Dark Blue	Yards
P4G1	Polyester Tape	3.8 oz	1"	Green	Yards
P4G1H	Polyester Tape	3.8 oz	1 1/2"	Green	Yards
P4G2	Polyester Tape	3.8 oz	2"	Green	Yards
P4G3	Polyester Tape	3.8 oz	3"	Green	Yards
P4K1	Polyester Tape	3.8 oz	1"	Black	Yards
P4K1H	Polyester Tape	3.8 oz	1 1/2"	Black	Yards
P4K2	Polyester Tape	3.8 oz	2"	Black	Yards
P4K3	Polyester Tape	3.8 oz	3"	Black	Yards



TiO²+ UV Coated Polyester Tape

Precision heat slit from Challenge's 4.5 oz TiO²+ Dacron sailcloth. Perfect for roller-furling leech and foot tapes or touch-ups. Coated on both sides for added durability.

PART	DESCRIPTION	WEIGHT	WIDTH	COLOR	ORDER BY
PUV43	UV Coated Polyester Tape	4.5 oz	3"	White	Yards
PUV44	UV Coated Polyester Tape	4.5 oz	4"	White	Yards



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



100 > Luff Tape

Mainsail Bolt Rope Tape



Save time by installing mainsail luff tapes using our premium-brand pre-made luff tape made of soft-spun polyester three-strand line covered with 8 oz sailcloth.

		ROPE	TAPE	FABRIC	ORDER
PART	DESCRIPTION	DIA	WIDTH	WEIGHT	BY
HR4	Mainsail Bolt Rope Tape	1/4"	3"	6 oz	Feet
HR5	Mainsail Bolt Rope Tape	5/16"	4"	8 oz	Feet
HR6	Mainsail Bolt Rope Tape	3/8"	4"	8 oz	Feet

Premium Luff Tape

Tape size can be determined by stitching color. 8 oz tapes are identified with blue stich directly in front of the bumper rope.



		FABRIC	STITCH	ROPE	FT/	ORDER
PART	TAPE	WEIGHT	CODE	DIA	ROLL	BY
HL4	#4 Premium Luff Tape	6 oz	Yellow	1/8"	300	Feet
HL5	#5 Premium Luff Tape	6 oz	Red	5/32"	300	Feet
HL6	#6 Premium Luff Tape	6 oz	White	3/16"	300	Feet
HL7	#7 Premium Luff Tape	6 oz	Brown	7/32"	300	Feet
HM6	#6 Premium Luff Tape	8 oz	White	3/16"	300	Feet
HM7	#7 Premium Luff Tape	8 oz	Brown	7/32"	300	Feet
HM8	#8 Premium Luff Tape	8 oz	Blue	1/4"	300	Feet
НМ9	#9 Premium Luff Tape	8 oz	Green	9/32"	300	Feet

TAPE SIZES FOR GROOVED HEADSTAY SYSTEMS

Headstay System	#4	#5	#6	#7	#8	#9
Reefer			4-12			18-22
Hood Gemini				14A, 20A		20C
Hood Sea Furl	New A		All Others		Old B	Old C
Twin Stay / Dynafurl	8, 12		18, 24, 30, 48			
Stream Stay		8	9		10, 12	16
Headfoil		20	30, 40	50, 60		
Spoolfurl						All
Harken		0	0, 1, 2			
Furlex		А	В	C,D		
Leistay			M			
Profurl			All			
Reckmann			R3, R4			
TuffLuff		1205	1706, 2206			



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Headstay Systems < 101

Welded Luff Tape

Vinyl backed sailcloth heat welded around luff cord for firm finish. No stitches to degrade from UV or abrasion. Metric sizes only. Please check luff system for proper size tape.

PART	DESCRIPTION	BUMPER ROPE	FABRIC WEIGHT	FINISHED SIZE	FT/ ROLL	ORDER BY
HWT4	Welded Luff Tape	Without	6 oz	4 mm	300	Feet
HWT5	Welded Luff Tape	Without	6 oz	5 mm	300	Feet
HWT6	Welded Luff Tape	Without	6 oz	6 mm	300	Feet
HWT7	Welded Luff Tape	Without	6 oz	7 mm	300	Feet
HWT8	Welded Luff Tape	Without	6 oz	8 mm	300	Feet
HWT9	Welded Luff Tape	Without	6 oz	9 mm	300	Feet
HWT10	Welded Luff Tape	Without	6 oz	10 mm	300	Feet
HWTD4	Welded Luff Tape	With	6 oz	4 mm	300	Feet
HWTD5	Welded Luff Tape	With	6 oz	5 mm	300	Feet
HWTD6	Welded Luff Tape	With	6 oz	6 mm	300	Feet
HWTD7	Welded Luff Tape	With	6 oz	7 mm	300	Feet
HWTD8	Welded Luff Tape	With	6 oz	8 mm	300	Feet



TuffLuff Headstay Systems and Replacement Parts

The preferred choice by many racing sailors. Twin grooves allow for easy genoa changes without needing to go bare-headed. Pick from three different extrusion sizes to match the appropriate headstay diameter and length. Each kit includes luff-extrusion, head-cap, extrusion-feeder, spacer tube and genoa pre-feeder. Replacement parts sold separately. Kevlar bumper offers extra impact protection from spinnaker poles.

PART	DESCRIPTION	SYSTEM	TAPE	EXTRUSION	ORDER BY
H1205-30	Complete Headstay Kit	1205	#5	30 ft	Each
H1205-36	Complete Headstay Kit	1205	#5	36 ft	Each
H1205-46	Complete Headstay Kit	1205	#5	46 ft	Each
H1706-36	Complete Headstay Kit	1706	#6	36 ft	Each
H1706-46	Complete Headstay Kit	1706	#6	46 ft	Each
H1706-59	Complete Headstay Kit	1706	#6	59 ft	Each
H2206-59	Complete Headstay Kit	2206	#6	59 ft	Each
H2206-72	Complete Headstay Kit	2206	#6	72 ft	Each
H1205-13	Top Cap	1205			Each
H1205-02	Stainless Feeder	1205			Each
H1205-10	Kevlar Bumper	1205			Each
H1205-03	Spacer Tube (44")	1205			Each
H1706-13	Top Cap	1706			Each
H1706-02	Stainless Feeder	1706			Each
H1706-10	Kevlar Bumper	1706			Each
H2206-03	Spacer Tube (44")	1706			Each
H2206-13	Top Cap	2206			Each
H2206-02	Stainless Feeder	2206			Each
H2206-10	Kevlar Bumper	2206			Each
H2206-03	Spacer Tube (44")	2206			Each
H1205-01	Genoa Pre-Feeder	All			Each







TOP CAP FEEDER



BUMPER PRE-FEEDER



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

102 > Nylon, Polyester & Kevlar

Waxed Flat Webbing



PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YFW3	White Waxed Webbing	3/16"	148 lb	250	Rolls

Flat Nylon Webbing

Tightly woven nylon webbing is a perfect choice for many sail and canvas making jobs.



PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWFNH	White Flat Web	1/2"	700 lb	50	Rolls
YWFNR	White Flat Web	3/4"	1,184 lb	50	Rolls
YWFN1	White Flat Web	1"	1,635 lb	100	Rolls
YWFN1B	Black Flat Web	1"	1,635 lb	100	Rolls
YWFN1H	White Flat Web	1 1/2"	2,220 lb	100	Rolls
YWFN2	White Flat Web	2"	3,460 lb	100	Rolls
YWH	Hvy White Flat Web	1"		50	Rolls
YWX	Extra Hvy White Flat Web	1"		50	Rolls
YWS	Super Hvy White Flat Web	1"	6,450 lb	45	Rolls

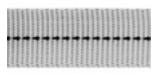


Colored Heavy Nylon Webbing



PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWFP	FI Pnk Heavy Webbing	1"	3,607 lb	50	Rolls
YWFG	FI Gr Heavy Webbing	1"	3,607 lb	50	Rolls
YWFY	FI Yel Heavy Webbing	1"	3,607 lb	50	Rolls
YWFO	FI Or Heavy Webbing	1"	3,607 lb	50	Rolls

Tubular Polyester Webbing



Extra-strong tubular webbing with black tracer stripe available in three convenient sizes. The soft-spun tubular polyester is not as strong a our regular tubular polyester, but it's soft finish makes it great for sail ties and many canvas projects. This webbing is so soft it can be used as binding.



PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWTP2	White Tubular Webbing	1/2"	1,133 lb	100	Rolls
YWTP3	White Tubular Webbing	3/4"	1,615 lb	100	Rolls
YWTP4	White Tubular Webbing	1"	2,810 lb	50	Rolls
YWTP9	Wh Soft Tubular Webbing	1 1/8"	1,370 lb	50	Rolls

Kevlar® Ribbon



Perfect solution for situations that require extra strength without the bulk.

PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YK3	Kevlar Ribbon	3/8"	254 lb	250	Rolls



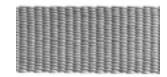
CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Spectra & Polypropylene < 103

Kevlar® Webbing

Tightly woven Kevlar webbing provides the best strength to weight ratio of any of our Aramid webbings.

PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWK	Light Kevlar Webbing	1"	6,275 lb	Varies	Yards
YWK3	Heavy Kevlar Webbing	1"	6,275 lb	25	Rolls



Spectra Webbing

Perfect combination of strength and UV resistance. Light weight features all Spectra or Dyneema construction with blue tracer. Heavy weight available in all Spectra/Dyneema or in costs saving Spectra/Dyneema warp x Polyester fill construction.

PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWS1L	Light Spectra Webbing	1"	2,380 lb	55	Rolls
YWS2L	Light Spectra Webbing	2"	4,130 lb	55	Rolls
YWS1	Heavy Spectra Webbing	1"	6,380 lb	25	Rolls
YWS3	Heavy Spectra Webbing	1 3/4"	10,225 lb	25	Rolls
YWS1s	Spectra Warped Fill	1"		25	Rolls

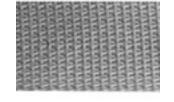




Polypropylene Webbing

Standard weight polypropylene is perfect for applications that require light weight, color and almost no water absorption.

PART	DESCRIPTION	WIDTH	AVG BRK STRG	YD/ROLL	ORDER BY
YWPRY	Royal Polypro Web	1"	500 lb	100	Rolls
YWPK	Black Polypro Web	1"	500 lb	100	Rolls
YWPT	White Polypro Web	1"	500 lb	100	Rolls
YWPN	Navy Polypro Web	1"	500 lb	100	Rolls
YWPR	Red Polypro Web	1"	500 lb	100	Rolls
YWPG	Green Polypro Web	1"	500 lb	100	Rolls
YWPY	Yellow Polypro Web	1"	500 lb	100	Rolls
YWPO	Orange Polypro Web	1"	500 lb	100	Rolls
YWPW	Rainbow Polypro Web	1"	500 lb	100	Rolls
YWPW	Silver Polypro Web	1"	500 lb	100	Rolls
YWPRYIH	Royal Polypro Web	1 1/2"	775 lb	100	Rolls
YWPK1H	Black Polypro Web	1 1/2"	775 lb	100	Rolls
YWPW1H	White Polypro Web	1 1/2"	775 lb	100	Rolls
YWPN1H	Navy Polypro Web	1 1/2"	775 lb	100	Rolls
YWPR1H	Red Polypro Web	1 1/2"	775 lb	100	Rolls
YWPG1H	Green Polypro Web	1 1/2"	775 lb	100	Rolls
YWPRY2	Royal Polypro Web	2"	837 lb	100	Rolls
YWPK2	Black Polypro Web	2"	837 lb	100	Rolls
YWPW2	White Polypro Web	2"	837 lb	100	Rolls
YWPN2	Navy Polypro Web	2"	837 lb	100	Rolls
YWPR2	Red Polypro Web	2"	837 lb	100	Rolls
YWPG2	Green Polypro Web	2"	837 lb	100	Rolls
YWPE2	Beige Polypro Web	2"	837 lb	50	Rolls



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



104 > Pocket Elastic & Buckles

Batten Pocket Elastic

Extra thick woven elastic for best recovery and long life. Use batten pocket elastic to keep the batten in the pocket.



PART	DESCRIPTION	WIDTH	THICKNESS	YD/ROLL	ORDER BY
YBH	Batten Pocket Elastic	1/2"	0.070	25	Rolls
YB3	Batten Pocket Elastic	3/4"	0.070	25	Rolls
YB1	Batten Pocket Elastic	1"	0.070	25	Rolls
YB1H	Batten Pocket Elastic	1 1/2"	0.070	25	Rolls
YB2	Batten Pocket Elastic	2"	0.070	25	Rolls

Cam Buckles



Used for adjustment of compression battens.

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBCT	Cam Buckle	3/4"	50	Each
FBC1	Cam Buckle	1"	50	Each

Ladderlock Buckles



Engineered for strength from one solid piece with fixed middle bar. Special features assure smooth and easy tightening with less slippage and the convenience of one handed release or tightening.



PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBL5	Ladderlock Buckle	5/8"	50	Each
FBLT	Ladderlock Buckle	3/4"	50	Each
FBL1	Ladderlock Buckle	1"	50	Each

Heavy Duty Ladderlock Buckles



Heavy duty buckle, used for adjustment of compression battens and tie downs.

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBLHD	Heavy Duty Ladderlock	1"	50	Each

Side-Release Buckles



YKK Apollo series, the highest strength side-release buckles available (300 lbs. average at 1"). New high-tech design incorporates a four position lock mechanism for added safety. Non-slip adjuster ensures secure restraint. Inner rib increases impact resistance. Molded in black Delrin (acetal).

PART	DESCRIPTION	WEBBING SIZE	QTY/PKG	ORDER BY
FBS	Side Release Buckle	1"	50	Each
FBS2	Side Release Buckle	2"	50	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Hook & Loop < 105

Velcro® Nylon Hook and Loop

Velcro brand nylon hook and loop is highest quality for variety of fastening needs. Nylon hook and loop provide the best holding strength.

PART	DESCRIPTION	WIDTH	COLOR	YD/ROLL	ORDER BY
White Nylo	n Hook and Loop				
YH5	Nylon Hook	5/8"	White	50	Full Rolls
YH1	Nylon Hook	1"	White	50	Full Rolls
YH15	Nylon Hook	1 5/8"	White	50	Full Rolls
YH2	Nylon Hook	2"	White	50	Full Rolls
YL5	Nylon Loop	5/8"	White	50	Full Rolls
YL1	Nylon Loop	1"	White	50	Full Rolls
YL15	Nylon Loop	1 5/8"	White	50	Full Rolls
YL2	Nylon Loop	2"	White	50	Full Rolls
Black Nylo	n Hook and Loop				
YH5K	Nylon Hook	5/8"	Black	50	Full Rolls
YH1K	Nylon Hook	1"	Black	50	Full Rolls
YH2K	Nylon Hook	2"	Black	50	Full Rolls
YL5K	Nylon Loop	5/8"	Black	50	Full Rolls

1"

2"

Black

Black

50

50

Full Rolls

Full Rolls





Adhesive Back Velcro® Nylon Hook and Loop

Nylon Loop

Nylon Loop

Same product as above, but backed with a specially formulated outdoor adhesive.

PART	DESCRIPTION	WIDTH	COLOR	YD/ROLL	ORDER BY
YHN1A	Adhesive Back Nylon Hook	1"	White	25	Full Rolls
YLN1A	Adhesive Back Nylon Loop	1"	White	25	Full Rolls



Polyester Hook and Loop

YL1K

YL2K

A more durable option where hook and loop is exposed to constant UV.

PART	DESCRIPTION	WIDTH	COLOR	YD/ROLL	ORDER BY
YHP1	Polyester Hook	1"	White	25	Full Rolls
YLP1	Polyester Loop	1"	White	25	Full Rolls



YKK Cosmolon Nylon Hook and Loop

Good quality hook and loop made by YKK.

PART	DESCRIPTION	WIDTH	COLOR	YD/ROLL	ORDER BY
YHE1	Cosmolon Nylon Hook	1"	White	50	Full Rolls
YHE2	Cosmolon Nylon Hook	2"	White	50	Full Rolls
YLE1	Cosmolon Nylon Loop	1"	White	50	Full Rolls
YLE2	Cosmolon Nylon Loop	2"	White	50	Full Rolls

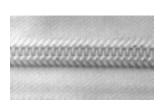


CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



106 > Coil & Continuous Zippers

YKK Continuous Coil Zipper Chain



Fine toothed coil is quite flexable for rounding corners or strange angles.

PART	DESCRIPTION	WIDTH	CLR	YD/ROLL	ORDER BY
YZIPC5	#5 Coil Continuous Zipper	1 1/4"	White	218	Yards
YZIPC10	#10 Coil Continuous Zipper	1 9/16"	White	109	Yards

YKK #5 Continuous Coil Zipper Sliders



Chose between all metal die-cast white or nickel sliders with either single or double pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY			
White Coil Zipper Sliders										
YZQ52	#5 Coil Slider	Sing.	Metal	Non	White	50	Each			
YZQ54	#5 Coil Slider	Doub.	Metal	Non	White	50	Each			
Nickel Coi	l Zipper Sliders									
YZQ51	#5 Coil Slider	Sing.	Metal	Non	Nickle	50	Each			
YZQ53	#5 Coil Slider	Doub.	Metal	Non	Nickle	50	Each			

YKK #10 Continuous Coil Zipper Sliders



Chose between all metal die-cast white or nickel sliders with either single or double pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY
White Coi	il Zipper Sliders						
YZQ92	#10 Coil Slider	Sing.	Metal	Non	White	50	Each
Nickel Co	il Zipper Sliders						
Nickel Co	il Zipper Sliders #10 Coil Slider	Sing.	Metal	Non	Nickle	50	Each

YKK Vislon Continuous Zipper Chain

DESCRIPTION



Vision brand zippers are tough and designed for many outdoor applications. Available in four sizes: 5, 8, 10 or 15 to suit your specific application.

WIDTH

CLR YD/ROLL ORDER BY



vvnite visio	n Continuous Zipper Chain				
YZIPV5	#5 Vislon Continuous Zipper	1 3/16"	White	218	Yards
YZIPV8	#8 Vislon Continuous Zipper	1 1/4"	White	136	Yards
YZIPV10	#10 Vislon Continuous Zipper	1 1/2"	White	109	Yards
Black Vislo	n Continuous Zipper Chain				
YZIPV5B	#5 Vislon Continuous Zipper	1 3/16"	Black	218	Yards
YZIPV10B	#10 Vislon Continuous Zipper	1 1/2"	Black	109	Yards
YZIPV15B	#15 Vislon Continuous Zipper	2 3/4"	Black	109	Yards



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Vislon Zipper Sliders < 107

YKK #5 Vislon Zipper Sliders

Chose between all metal die-cast sliders or corrosion proof plastic sliders with either single or double pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY
White Vislo	on Zipper Slides						
YZP51	#5 Vislon Slider	Sing.	Metal	Non	White	50	Each
YZP52	#5 Vislon Slider	Sing.	Plastic	Non	White	50	Each
YZP58	#5 Vislon Slider	Sing.	Plastic	Auto	White	50	Each
YZP55	#5 Vislon Slider	Doub.	Metal	Non	White	50	Each
YZP59	#5 Vislon Slider	Doub.	Metal	Auto	White	50	Each
YZP56	#5 Vislon Slider	Doub.	Plastic	Non	White	50	Each
YZP60Z	#5 Vislon Slider	Doub.	Plastic	Auto	White	50	Each
Black Vislo	on Zipper Slides						
YZP53	#5 Vislon Slider	Sing.	Metal	Non	Black	50	Each
YZP54	#5 Vislon Slider	Sing.	Plastic	Non	Black	50	Each



YKK #8 Vislon Zipper Sliders

Chose between all metal die-cast sliders or corrosion proof plastic sliders with either single or double pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY
YZP81	#8 Vislon Slider	Sing.	Metal	Auto	White	50	Each
YZP83	#8 Vislon Slider	Doub.	Metal	Auto	White	50	Each



YKK #10 Vislon Zipper Sliders

Chose between all metal die-cast sliders or corrosion proof plastic sliders with either single or double pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY
White Visi	lon Zipper Sliders						
YZP91	#10 Vislon Slider	Sing.	Metal	Non	White	50	Each
YZP96	#10 Vislon Slider	Sing.	Plastic	Auto	White	50	Each
YZP93	#10 Vislon Slider	Doub.	Metal	Non	White	50	Each
YZP98	#10 Vislon Slider	Doub.	Metal	Auto	White	50	Each
YZP94	#10 Vislon Slider	Doub.	Plastic	Non	White	50	Each
YZP99	#10 Vislon Slider	Doub.	Plastic	Auto	White	50	Each
Black Vis	lon Zipper Sliders						
YZP92	#10 Vislon Slider	Sing.	Metal	Non	Black	50	Each
YZP97	#10 Vision Slider	Sing.	Plastic	Auto	Black	50	Each
							_30
YZP	#10 Vislon Slider	Doub.	Plastic	Non	Black	50	Each



HARDWARE

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

108 > Jacket Zippers

YKK #15 Vislon Zipper Sliders









Chose between plastic or stainless steel pulls.

PART	DESCRIPTION	PULL	MTRL	LCK	CLR	QTY/PKG	ORDER BY
YZDPSBK	#15 Slider	Sing.	Plastic	Non	Black	10	Each
YZPS	#15 Slider	Sing.	Metal	Non	SS	5	Each
YZDPS	#15 Slider	Doub.	Metal	Non	SS	5	Each

YKK Star Jib Zipper



216" separating zipper used by many on Star Jib Luffs.

PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
YZS5	#5 Star Jib Zipper	Sing.	Metal	216"	White	10	Each
YZS10	#10 Star Jib Zipper	Sing.	Metal	216"	White	10	Each

YKK #5 Vislon Jacket Zippers – Single Metal Pull



Feature starter end, single metal pull and end stops.

PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
YZJ48	#5 Jacket Zipper	Sing.	Metal	48"	White	25	Each
YZJ84	#5 Jacket Zipper	Sing.	Metal	84"	White	10	Each
YZJ186	#5 Jacket Zipper	Sing.	Metal	186"	White	10	Each
YZJ264	#5 Jacket Zipper	Sing.	Metal	264"	White	10	Each

YKK #10 Vislon Jacket Zippers – Single Metal Pull

Feature starter end, single metal pull and end stops.



PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
YZ24	#10 Jacket Zipper	Sing.	Metal	24"	White	50	Each
YZ30	#10 Jacket Zipper	Sing.	Metal	30"	White	25	Each
YZ36	#10 Jacket Zipper	Sing.	Metal	36"	White	25	Each
YZ48	#10 Jacket Zipper	Sing.	Metal	48"	White	25	Each
YZ54	#10 Jacket Zipper	Sing.	Metal	54"	White	25	Each
YZ60	#10 Jacket Zipper	Sing.	Metal	60"	White	25	Each
YZ66	#10 Jacket Zipper	Sing.	Metal	66"	White	25	Each
YZ72	#10 Jacket Zipper	Sing.	Metal	72"	White	25	Each
YZ84	#10 Jacket Zipper	Sing.	Metal	84"	White	10	Each
YZ96	#10 Jacket Zipper	Sing.	Metal	96"	White	10	Each
YZ108	#10 Jacket Zipper	Sing.	Metal	108"	White	10	Each
YZ120	#10 Jacket Zipper	Sing.	Metal	120"	White	10	Each
YZ180	#10 Jacket Zipper	Sing.	Metal	180"	White	10	Each



Jacket Zippers < 109

YKK #10 Vislon Jacket Zippers – Single Plastic Pull

Feature starter end, single plastic pull and end stops.

PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
YZP24	#10 Jacket Zipper	Sing.	Plastic	24"	White	50	Each
YZP36	#10 Jacket Zipper	Sing.	Plastic	36"	White	25	Each
YZP48	#10 Jacket Zipper	Sing.	Plastic	48"	White	25	Each
YZP60Z	#10 Jacket Zipper	Sing.	Plastic	60"	White	20	Each
YZP72	#10 Jacket Zipper	Sing.	Plastic	72"	White	20	Each
YZP180	#10 Jacket Zipper	Sing.	Plastic	180"	White	10	Each



YKK #10 Vision Jacket Zippers – Double Metal Pull

Feature starter end, double metal pull and end stops.

PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
White Vis	Ion Jacket Zippers						
YZD24	#10 Jacket Zipper	Doub.	Metal	24"	White	50	Each
YZD30	#10 Jacket Zipper	Doub.	Metal	30"	White	25	Each
YZD36	#10 Jacket Zipper	Doub.	Metal	36"	White	25	Each
YZD48	#10 Jacket Zipper	Doub.	Metal	48"	White	25	Each
YZD54	#10 Jacket Zipper	Doub.	Metal	54"	White	25	Each
YZD60	#10 Jacket Zipper	Doub.	Metal	60"	White	25	Each
YZD66	#10 Jacket Zipper	Doub.	Metal	66"	White	25	Each
YZD72	#10 Jacket Zipper	Doub.	Metal	72"	White	25	Each
YZD84	#10 Jacket Zipper	Doub.	Metal	84"	White	10	Each
YZD96	#10 Jacket Zipper	Doub.	Metal	96"	White	10	Each
YZD108	#10 Jacket Zipper	Doub.	Metal	108"	White	10	Each
YZD120	#10 Jacket Zipper	Doub.	Metal	120"	White	10	Each
YZD180	#10 Jacket Zipper	Doub.	Metal	180"	White	10	Each

Black Visl	on Jacket Zippers						
YZD24B	#10 Jacket Zipper	Doub.	Metal	24"	Black	50	Each
YZD36B	#10 Jacket Zipper	Doub.	Metal	36"	Black	25	Each
YZD48B	#10 Jacket Zipper	Doub.	Metal	48"	Black	25	Each
YZD54B	#10 Jacket Zipper	Doub.	Metal	54"	Black	25	Each
YZD60B	#10 Jacket Zipper	Doub.	Metal	60"	Black	25	Each
YZD66B	#10 Jacket Zipper	Doub.	Metal	66"	Black	25	Each
YZD72B	#10 Jacket Zipper	Doub.	Metal	72"	Black	20	Each
YZD84B	#10 Jacket Zipper	Doub.	Metal	84"	Black	10	Each
YZD96B	#10 Jacket Zipper	Doub.	Metal	96"	Black	10	Each
YZD108B	#10 Jacket Zipper	Doub.	Metal	108"	Black	10	Each
YZD120B	#10 Jacket Zipper	Doub.	Metal	120"	Black	10	Each
YZD180B	#10 Jacket Zipper	Doub.	Metal	180"	Black	10	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



110 > UV Jacket Zippers

YKK #10 Vislon Jacket Zippers – Double Plastic Pull

Feature starter end, double plastic pull and end stops.



PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY
		FOLL	WITIKE	LING	CLIX	QTI/FRG	OKDEK B1
White Visi	on Jacket Zippers						
YZDP36	#10 Jacket Zipper	Doub.	Plastic	36"	White	50	Each
YZDP48	#10 Jacket Zipper	Doub.	Plastic	48"	White	25	Each
YZDP60	#10 Jacket Zipper	Doub.	Plastic	60"	White	20	Each
YZDP72	#10 Jacket Zipper	Doub.	Plastic	72"	White	20	Each
Black Vislo	on Jacket Zippers						
YZDP36B	#10 Jacket Zipper	Doub.	Plastic	36"	Black	50	Each
YZDP48B	#10 Jacket Zipper	Doub.	Plastic	48"	Black	25	Each
YZDP60B	#10 Jacket Zipper	Doub.	Plastic	60"	Black	20	Each
YZDP72B	#10 Jacket Zipper	Doub.	Plastic	72"	Black	20	Each

YKK #10 Vislon Marine Mate UV Jacket Zippers

After 500 Hours UV Exposure





Generic Acetal Zipper

Marine Mates

Zipper	



Specifically designed for marine applications. Made of Delrin UV resistant acetal resin
these zippers last four times longer than standard zippers. Other features include
double plastic pull, stronger cord and tape, better water repellency. Marked with UV
stencil for easy idenfification

PART	DESCRIPTION	PULL	MTRL	LNG	CLR	QTY/PKG	ORDER BY		
White Marine	White Marine Mate Jacket Zippers								
YZDP24UV	#10 UV Zipper	Doub.	Plastic	24"	White	50	Each		
YZDP48UV	#10 UV Zipper	Doub.	Plastic	48"	White	25	Each		
YZDP54UV	#10 UV Zipper	Doub.	Plastic	54"	White	20	Each		
YZDP60UV	#10 UV Zipper	Doub.	Plastic	60"	White	20	Each		
YZDP72UV	#10 UV Zipper	Doub.	Plastic	72"	White	20	Each		
YZDP84UV	#10 UV Zipper	Doub.	Plastic	84"	White	10	Each		
Black Marine	Mate Jacket Zip	pers							
YZDP18UVB	#10 UV Zipper	Doub.	Plastic	18"	Black	50	Each		
YZDP24UVB	#10 UV Zipper	Doub.	Plastic	24"	Black	50	Each		
YZDP48UVB	#10 UV Zipper	Doub.	Plastic	48"	Black	25	Each		
YZDP54UVB	#10 UV Zipper	Doub.	Plastic	54"	Black	20	Each		
YZDP60UVB	#10 UV Zipper	Doub.	Plastic	60"	Black	20	Each		
YZDP72UVB	#10 UV Zipper	Doub.	Plastic	72"	Black	20	Each		
YZDP84UVB	#10 UV Zipper	Doub.	Plastic	84"	Black	10	Each		

YKK #10 Zipper Stops

White enamel coated die-cast metal stops crimp-on with pliers of a professional finish on many zipper applications. Chose between end-stop or side-stop.



HARDWARE

PART	DESCRIPTION	MTRL	CLR	QTY/PKG	ORDER BY
YZS10VFBB-S	Zipper End-Stop	Metal	White	100	Each
YZS10VFTHT-S	Zipper Side-Stop	Metal	White	100	Pkg

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

American & Efird Threads < 111

American & Efird Bonded Polyester Thread

Quality bonded polyester thread offers good UV resistance, low moisture gain and is our most economical thread. Sold in one pound metered spools.

PART	DESCRIPTION	SIZE	COLOR	YD/SPL	LB/SPL	ORDER BY
VTEX46W	Polyester Thread	V46	White	5,400*	1	Lbs
VTEX46BK	Polyester Thread	V46	Black	5,400*	1	Lbs
VTEX69W	Polyester Thread	V69	White	5,400*	1	Lbs
VTEX69BK	Polyester Thread	V69	Black	5,400*	1	Lbs
VTEX92W	Polyester Thread	V92	White	4,000*	1	Lbs
VTEX92BK	Polyester Thread	V92	Black	4,000*	1	Lbs
VTEX138W	Polyester Thread	V138	White	2,700*	1	Lbs
VTEX138BK	Polyester Thread	V138	Black	2,700*	1	Lbs



American & Efird Bonded Polyester Prewound Barbobs

Pre-wound Barbobs provide convenience without the cost. Features plastic core with cardboard sides which reduces the amount resin needed to keep bobbin together.

PART	DESCRIPTION	STYLE	SIZE	COLOR	QTY/GRS	ORDER BY
VTEX46RD	Prewound Barbobs	D	V46	White	144	Gross
VTEX46RF	Prewound Barbobs	F	V46	White	144	Gross
VTEX46RG	Prewound Barbobs	G	V46	White	144	Gross
VTEX46RH	Prewound Barbobs	Н	V46	White	144	Gross
VTEX46RL	Prewound Barbobs	L	V46	White	144	Gross
VTEX69RD	Prewound Barbobs	D	V69	White	144	Gross
VTEX69RF	Prewound Barbobs	F	V69	White	144	Gross
VTEX69RG	Prewound Barbobs	G	V69	White	144	Gross
VTEX69RH	Prewound Barbobs	Н	V69	White	144	Gross
VTEX69RL	Prewound Barbobs	L	V69	White	144	Gross
VTEX92RD	Prewound Barbobs	D	V92	White	144	Gross
VTEX92RF	Prewound Barbobs	F	V92	White	144	Gross
VTEX92RG	Prewound Barbobs	G	V92	White	144	Gross
VTEX92RH	Prewound Barbobs	Н	V92	White	144	Gross
VTEX92RL	Prewound Barbobs	L	V92	White	144	Gross
VTEX92R39	Prewound Barbobs	39	V92	White	144	Gross
VTEX138RD	Prewound Barbobs	D	V138	White	144	Gross
VTEX138RF	Prewound Barbobs	F	V138	White	144	Gross
VTEX138RG	Prewound Barbobs	G	V138	White	144	Gross
VTEX138RH	Prewound Barbobs	Н	V138	White	144	Gross
VTEX138RL	Prewound Barbobs	L	V138	White	144	Gross
VTEX138R39	Prewound Barbobs	39	V138	White	144	Gross



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



112 > Heminway & Bartlett Threads

Heminway & Bartlett V30 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.



PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V30W	Thread	V30	White		1	Lbs
V30BU	Thread	V30	Navy Blue	144	1	Lbs
V30G	Thread	V30	Green	428	1	Lbs
V30R	Thread	V30	Red	62	1	Lbs
V30BK	Thread	V30	Black	50	1	Lbs

Heminway & Bartlett V46 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.



PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V46W	Thread	V46	White		1	Lbs
V46BU	Thread	V46	Navy Blue	144	1	Lbs
V46BK	Thread	V46	Black	50	1	Lbs
V46CH	Thread	V46	Chestnut	3952	1	Lbs
V46S	Thread	V46	Silver	11485	1	Lbs
V46G	Thread	V46	Green	428	1	Lbs
V46R	Thread	V46	Red	62	1	Lbs
V46O	Thread	V46	Orange	244	1	Lbs
V46Y	Thread	V46	Yellow	230	1	Lbs
V46RY	Thread	V46	Royal Blue	9382	1	Lbs

Heminway & Bartlett V69 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.



PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V69W	Thread	V69	White		1	Lbs
V69BU	Thread	V69	Navy Blue	144	1	Lbs
V69BK	Thread	V69	Black	50	1	Lbs
V69CH	Thread	V69	Chestnut	3952	1	Lbs
V69S	Thread	V69	Silver	11485	1	Lbs
V69G	Thread	V69	Green	428	1	Lbs
V69BG	Thread	V69	Psnt Beige	352	1	Lbs
V69R	Thread	V69	Red	62	1	Lbs
V69O	Thread	V69	Orange	244	1	Lbs
V69Y	Thread	V69	Yellow	230	1	Lbs
V69RYB	Thread	V69	Royal Blue	9382	1	Lbs



Heminway & Bartlett Threads < 113

Heminway & Bartlett V92 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.

PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V92W	Thread	V92	White		1	Lbs
V92BU	Thread	V92	Navy Blue	144	1	Lbs
V92BK	Thread	V92	Black	50	1	Lbs
V92CH	Thread	V92	Chestnut	3952	1	Lbs
V92S	Thread	V92	Silver	11485	1	Lbs
V92G	Thread	V92	Green	428	1	Lbs
*V92CG	Thread	V92	Cadet Grey	13665	1	Lbs
V92R	Thread	V92	Red	62	1	Lbs
V92O	Thread	V92	Orange	244	1	Lbs
V92Y	Thread	V92	Yellow	230	1	Lbs
V92RY	Thread	V92	Royal Blue	9382	1	Lbs
*V92SPB	Thread	V92	Pacific Blue	11125	1	Lbs
*V92SSB	Thread	V92	Sky Blue	112	1	Lbs
*V92SB	Thread	V92	Sapphire	13671	1	Lbs
*V92OY	Thread	V92	Oyster	13664	1	Lbs
*V92L	Thread	V92	Linen	13666	1	Lbs
*V92SFG	Thread	V92	Forest Green	430	1	Lbs
*V92SNB	Thread	V92	Captain Navy	154	1	Lbs



Heminway & Bartlett V138 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.

PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V138W	Thread	V138	White		1	Lbs
V138BU	Thread	V138	Navy Blue	144	1	Lbs
V138BK	Thread	V138	Black	50	1	Lbs
V138S	Thread	V138	Silver	11485	1	Lbs
V138CH	Thread	V138	Chestnut	3952	1	Lbs
V138G	Thread	V138	Green	428	1	Lbs
V138R	Thread	V138	Red	62	1	Lbs
V138RY	Thread	V138	Royal Blue	9382	1	Lbs
V138Y	Thread	V138	Yellow	230	1	Lbs



Heminway & Bartlett V207, V277 & V346 Thread

A long-sailmaking tradition, this premium quality thread offers low moisture gain with good mildew and UV resistance due to its advanced bonding process.

PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
V207	Thread	V207	White		1	Lbs
V207CH	Thread	V207	Chestnut	3952	1	Lbs
V277	Thread	V277	White		1	Lbs
V346	Thread	V346	White		1	Lbs



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

^{*} Shades specifically formulated to match Sunbrella colors.

114 > Heminway & Bartlett Threads

Heminway & Bartlett Reverse Twist Thread



Same quality Heminway and Bartlett thread with an "S" twist for special machines (like double needle machines) that require reverse twist.

PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
VR69W	Rev Twist Thread	V69	White		1	Lbs
VR92W	Rev Twist Thread	V92	White		1	Lbs

Heminway & Bartlett 1 oz Thread Spools

Heminway & Bartlett quality, a little bit at a time. Perfect solution for small jobs, do it your-selfers.



PART	DESCRIPTION	SIZE	COLOR	H&B CLR	LB/SPL	ORDER BY
VU30W	1oz Spools	V30	White		1	Oz
VU46W	1oz Spools	V46	White		1	Oz
V O 10 V V	102 Op0013	V +O	VVIIIC		<u> </u>	- OZ
VU69BK	1oz Spools	V69	Black	50	1	Oz
VU69BU	1oz Spools	V69	Navy Blue	144	1	Oz
VU69CH	1oz Spools	V69	Chestnut	3952	1	Oz
VU69G	1oz Spools	V69	Green	428	1	Oz
VU69R	1oz Spools	V69	Red	62	1	Oz
VU69SPB	1oz Spools	V69	Snbrl Pcf Bl	7262	1	Oz
VU69W	1oz Spools	V69	White		1	Oz
VU92BK	1oz Spools	V92	Black	50	1	Oz
VU92BU	1oz Spools	V92	Navy Blue	144	1	Oz
VU92W	1oz Spools	V92	White		1	Oz

Heminway & Bartlett V46 Bellbobs

Convenient pre-wound Bellbobs feature plastic core for smooth operation and no sides to increase bobbin volume.



PART	DESCRIPTION	STYLE	SIZE	COLOR	QTY/GRS	ORDER BY
V46BBD	Bellbobs	D	V46	White	144	Gross
V46BBF	Bellbobs	F	V46	White	144	Gross
V46BBF	Bellbobs	F	V46	Silver	144	Gross
V46BBG	Bellbobs	G	V46	White	144	Gross
V46BBH	Bellbobs	Н	V46	White	144	Gross
V46BBL	Bellbobs	L	V46	White	144	Gross



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Heminway & Bartlett Bellbobs < 115

Heminway & Bartlett V69 Bellbobs

Convenient pre-wound Bellbobs feature plastic core for smooth operation and no sides to increase bobbin volume.

PART	DESCRIPTION	STYLE	SIZE	COLOR	QTY/GRS	ORDER BY
V69BBD	Bellbobs	D	V69	White	144	Gross
V69BBF	Bellbobs	F	V69	White	144	Gross
V69BBBUF	Bellbobs	F	V69	Navy Blue	144	Gross
V69BBSF	Bellbobs	F	V69	Silver	144	Gross
V69BBCHF	Bellbobs	F	V69	Chestnut	144	Gross
V69BBBKF	Bellbobs	F	V69	Black	144	Gross
V69BBG	Bellbobs	G	V69	White	144	Gross
V69BBBKG	Bellbobs	G	V69	Black	144	Gross
V69BCHG	Bellbobs	G	V69	Chestnut	144	Gross
V69BBH	Bellbobs	Н	V69	White	144	Gross
V69BBSH	Bellbobs	Н	V69	Silver	144	Gross
V69BBL	Bellbobs	L	V69	White	144	Gross
V69BBCHL	Bellbobs	L	V69	Chestnut	144	Gross
V69BBBKL	Bellbobs	L	V69	Black	144	Gross
V69BBT	Bellbobs	Т	V69	White	144	Gross



Heminway & Bartlett V92 Bellbobs

Convenient pre-wound Bellbobs feature plastic core for smooth operation and no sides to increase bobbin volume.

PART	DESCRIPTION	STYLE	SIZE	COLOR	QTY/GRS	ORDER BY
V92BBD	Bellbobs	D	V92	White	144	Gross
V92BBF	Bellbobs	F	V92	White	144	Gross
V92BBBUF	Bellbobs	F	V92	Navy Blue	144	Gross
V92BBSF	Bellbobs	F	V92	Silver	144	Gross
V92BBCHF	Bellbobs	F	V92	Chestnut	144	Gross
V92BBG	Bellbobs	G	V92	White	144	Gross
V92BBBUG	Bellbobs	G	V92	Navy Blue	144	Gross
V92BBH	Bellbobs	Н	V92	White	144	Gross
V92BBSH	Bellbobs	Н	V92	Silver	144	Gross
V92BBL	Bellbobs	L	V92	White	144	Gross
V92BBM	Bellbobs	М	V92	White	144	Gross
V92BBT	Bellbobs	Т	V92	White	144	Gross
V92BB39	Bellbobs	39	V92	White	144	Gross



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



116 > Heminway & Bartlett Threads

Heminway & Bartlett V138 & V207 Bellbobs

Convenient pre-wound Bellbobs feature plastic core for smooth operation and no sides to increase bobbin volume.



PART	DESCRIPTION	STYLE	SIZE	COLOR	QTY/GRS	ORDER BY
V138BBD	Bellbobs	D	V138	White	144	Gross
V138BBF	Bellbobs	F	V138	White	144	Gross
V138BBG	Bellbobs	G	V138	White	144	Gross
V138BBBKG	Bellbobs	G	V138	Black	144	Gross
V138BBSG	Bellbobs	G	V138	Silver	144	Gross
V138BBH	Bellbobs	Н	V138	White	144	Gross
V138BBL	Bellbobs	L	V138	White	144	Gross
V138BB39	Bellbobs	39	V138	White	144	Gross
V138BB57	Bellbobs	57	V138	White	144	Gross
V207BB39	Bellbobs	39	V207	White	144	Gross

Heminway & Bartlett Anti-Wick Bonded Thread

Special extra finishing process prevents moisture from wicking through thead. Perfect for dodgers, biminis and covers.



PART	DESCRIPTION	SIZE	COLOR	LB/SPL	ORDER BY
VA69W	Anti-Wick Thread	V69	White	1	Lbs
VA92W	Anti-Wick Thread	V92	White	1	Lbs
VA92PB	Anti-Wick Thread	V92	Pacific Blue	1	Lbs
VA92R	Anti-Wick Thread	V92	Red	1	Lbs
VA92BK	Anti-Wick Thread	V92	Black	1	Lbs
VA138W	Anti-Wick Thread	V138	White	1	Lbs
VA138PB	Anti-Wick Thread	V138	Pacific Blue	1	Lbs
VA138BK	Anti-Wick Thread	V138	Black	1	Lbs
VA207W	Anti-Wick Thread	V207	White	1	Lbs

Heminway & Bartlett Pre-Waxed Hand Sewing Thread

Quality thread, pre-waxed for handsewing convenience and durability.



PART	DESCRIPTION	SIZE	COLOR	LB/SPL	YD/LB	ORDER BY
V346WH	Pre-Waxed Thread	V346	White	1	1100	Lbs
V462WH	Pre-Waxed Thread	V462	White	1	950	Lbs
V9C	Pre-Waxed Thread	V9C	White	1	600	Lbs

CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Sailtwine and Wax < 117

Pre-Waxed Sailtwine Bobbins

Round pre-waxed thread in a smaller dose. Perfect for sail repair kits or line whipping.

PART	DESCRIPTION	SIZE	COLOR	BNS/PKG	ORDER BY
V6M	Pre-Waxed Bobbins	V-6-M	White	12	Pkg



Tenara Gore Tex Thread

Manufactured from 100% PTFE fiber, commonly know as Teflon®, this unique thread is easier to sew and will not rot or mildew. It is also unaffected by UV rays, salt water, acid rain, industrial pollutants or cleaning agents, and is backed by a Lifetime Warranty. Tenara is the best choice of thread for your premium canvas products.

PART	DESCRIPTION	WGT	SIZE	COLOR	LB/SPL	ORDER BY
VGM1000-5W	Gore Tex Thrd	Stnd	V92	White	1/2	1/2 Lb
VGM1000-5BK	Gore Tex Thrd	Stnd	V92	Black	1/2	1/2 Lb
VGM1000-5BU	Gore Tex Thrd	Stnd	V92	Blue	1/2	1/2 Lb
VGM1000KTR-L-5	Gore Tex Thrd	Stnd	V92	Clear	1/2	1/2 Lb
VGM1000H-5W	Gore Tex Thrd	Hvy	V138	White	1/2	1/2 Lb
VGM1000H-5B	Gore Tex Thrd	Hvy	V138	Black	1/2	1/2 Lb
VGM1000H-5BU	Gore Tex Thrd	Hvy	V138	Blue	1/2	1/2 Lb
VGM1000KHTR-L-5	Gore Tex Thrd	Hvy	V138	Clear	1/2	1/2 Lb



Prewaxed Flat Braided Nylon Sailtwine

Pre-waxed nylon thread lays flatter than regular round thread for a more professional finish. Wider thread also offers a larger surface to reduce tearing in fabric or leather.

PART	DESCRIPTION	DIAMETER	YD/SPL	ORDER BY
VFB1	Prewaxed Sailtwine	1/16"	500	Spools
VFB2	Prewaxed Sailtwine	1/8"	500	Spools



Easy-Wax No Kink Sailtwine

Raw un-waxed sailtwine is ready to soak-up wax or tar for service and parcelling jobs.

PART	DESCRIPTION	SIZE	QTY/PKG	ORDER BY
VST3	No Kink Sailtwine	3 Ply x 1/2 lb	1	Tubes
VST5	No Kink Sailtwine	5 Ply x 1/2 lb	1	Tubes
VST7	No Kink Sailtwine	7 Ply x 1/2 lb	1	Tubes
VSU3	No Kink Sailtwine	3 Ply x 1 oz	10	Tubes
VSU5	No Kink Sailtwine	5 Ply x 1 oz	10	Tubes
VSU7	No Kink Sailtwine	7 Ply x 1 oz	10	Tubes



Sailmakers 100% Pure Beeswax

Premium quality 100% beeswax is great way to keep your thread from kinking or unravelling. Actual weights may vary.

PART	DESCRIPTION	SHAPE	WEIGHT/PKG	ORDER BY
VWL	Sailmakers Wax	Cups	1 oz	Oz
VWP	Sailmakers Wax	Blocks	1 lb	Lbs



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



118 > Leechline

Braided Leechline

Prestretched Dacron. Low elongation.



				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	REEL	BY
L40	#40 Braided Leechline	3/64"	White	1000	Reels
L50	#50 Braided Leechline	1/16"	White	1000	Reels
L205	#205 Braided Leechline	5/64"	White	1000	Reels
L505	#505 Braided Leechline	1/8"	White	1000	Reels
L805	#805 Braided Leechline	5/32"	White	1000	Reels

Marlow Pre-Stretch Leechline

Designed to be hard wearing, flexible and provide low extension at high loads. Made of continuous filament polyester core and polyester cover.



				FI/	OKDEK
PART	DESCRIPTION	DIA	COLOR	REEL	BY
LM5	Pre-Stretch Leechline	5/32"	Natural	657	Reels
LM5FL	Pre-Stretch Leechline	5/32"	Fl. Lime	657	Reels
LM5FP	Pre-Stretch Leechline	5/32"	Fl. Pink	657	Reel
LM6	Pre-Stretch Leechline	3/16"	Natural	657	Reels

New England Technora® Leechline

Solid Technora core with braided polyester cover creates a high strength, low stretch, leechline with minimal creep.



				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	REEL	BY
LT3	Technora Leechline	3/32"	Natural	1500	Reels
LT4	Technora Leechline	1/8"	Natural	1200	Reels
LT5	Technora Leechline	5/32"	Natural	900	Reels

Marlow Dyneema® Leechline

Strong 12-strand Dyneema construction is light weight and will not absorb water. Pre-stretched for low extension at high loads.



				FI/	ORDER
PART	DESCRIPTION	DIA	COLOR	REEL	BY
LDS3	Marlow Dyneema Leechline	7/64"	White	656	Reels
LDS4	Marlow Dyneema Leechline	1/8"	White	656	Reels
LDS6	Marlow Dyneema Leechline	3/16"	White	656	Reels

[•] Avalable in Black, Red, Blue, and Lime. Please allow extra lead time.



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Cord, Rope & Luffline < 119

Soft Nylon Bag Cord

Excellent low cost option for sail bags and other lower load applications. Soft finish makes easy on hands.

				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	FREEL	BY
LC3	Soft Texturized Nylon Bag Cord	5/32"	White	3000	Reels
LC4	Soft Texturized Nylon Bag Cord	1/4"	White	1000	Reels
LC6	Hard Filament Nylon Bag Cord	3/16"	White	1100	Reels



Barrel Lock

Plastic spring-loaded barrel locks. Great for draw-string type bags and many other uses.

		MAX	QTY/	ORDER
PART	DESCRIPTION	DIA	PKG	BY
FBK	Barrel Lock	1/4"	50	Each



3-Strand Spun Dacron Rope

Special Soft-Spun polyester is designed to offer good stretch and excellent recovery for use in mainsail and genoa luffs.

				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	FREEL	BY
LR3	3-Strand Dacron Rope	3/16"	White	1200	Reels
LR4	3-Strand Dacron Rope	1/4"	White	1200	Reels
LR5	3-Strand Dacron Rope	5/16"	White	600	Reels
LR6	3-Strand Dacron Rope	3/8"	White	600	Reels
LR7	3-Strand Dacron Rope	7/16"	White	600	Reels
LR8	3-Strand Dacron Rope	1/2"	White	600	Reels



New England Hard Braided Luffline

Engineered to maintain its round shape under load, making this the perfect rope for use in grooved luff systems or luff tape.

				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	FREEL	BY
LL04	Hard Braided Luffline	1/8"	Yellow	1800	Reels
LL05	Hard Braided Luffline	5/32"	Orange/Black	1200	Reels
LL06	Hard Braided Luffline	3/16"	Black	2100	Reels
LL07	Hard Braided Luffline	7/32"	Orange	1200	Reels
LL08	Hard Braided Luffline	1/4"	Yellow/Black	1800	Reels
LL09	Hard Braided Luffline	9/32"	Yellow/Orange	1500	Reels
LL10	Hard Braided Luffline	5/16"	Orange/Black	1200	Reels
LL12	Hard Braided Luffline	3/8"	White	600	Reels



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



120 > Shockcord & Clamps

Shockcord

Synthetic multi-stranded rubber core is covered by a nylon jacket, making this shock-cord very stretchy and quite durable.



				FT/	ORDER
PART	DESCRIPTION	DIA	COLOR	REEL	BY
YSH2	Shockcord	1/8"	White	300	Reels
YSH3	Shockcord	3/16"	White	150	Reels
YSH3-5	Shockcord	3/16"	White	500	Reels
YSH4	Shockcord	1/4"	White	150	Reels
YSH4-5	Shockcord	1/4"	White	500	Reels
YSH5	Shockco	5/16"	White	150	Reels
YSH6	Shockcord	3/8"	White	150	Reels
YSH6BK	Shockcord	3/8"	Black	150	Reels

Shockcord Clamps

Stainless steel clamps (also known as "hog rings") provide a quick and positive means of seizing shockcord. Clamps can be closed with pliers but we recommend using our Shockcord Pliers listed below.



PART	DESCRIPTION	SIZE	FOR DIA	QTY/ PKG	ORDER BY
YSC1	Shockcord Clamps	X00	1/8" — 3/16"	100	Pkg
YSC2	Shockcord Clamps	X0-X1	1/4" — 5/16"	100	Pkg
YSC3	Shockcord Clamps	X2-X4	3/8" – 1/2"	100	Pkg

Pliers for Seizing Shockcord Clamps



Specifically designed for seizing shockcord clamps, these pliers have special cupped ends to hold the shockcord clamp securely for a safer, more consistent installation.

			FOR	QTY/	ORDER
PART	DESCRIPTION	SIZE	DIA	PKG	BY
LSHP	Shockcord Clamp Pliers	1 Size	All	1	Each

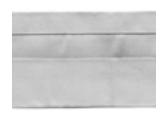


Nautica & Sunbrella Bindings < 121

Nautica Facing

Made from Nautica Mainstream Light vinyl cover fabric. Uneven folds are the solution for edging and reinforcement that needs to be a bit larger on one side than the other.

PART	DESCRIPTION	COLOR	WIDTH	YD/REEL	ORDER BY
YNF907-1.5	Nautica Facing	White	1 1/2"	100	Reels
YNF149-1.5	Nautica Facing	lvory	1 1/2"	100	Reels
YNF907	Nautica Facing	White	2"	100	Reels
YNF149	Nautica Facing	lvory	2"	100	Reels
YNF502	Nautica Facing	Blue	2"	100	Reels



Nautica Binding

Made from Nautica Mainstream Light vinyl cover fabric. This binding is light weight, flexible to conform to curves and durable enough to last for years.

PART	DESCRIPTION	COLOR	WIDTH	YD/REEL	ORDER BY
YNB907	Nautica Binding	White	3/4"	100	Reels
YNB502	Nautica Binding	Blue	3/4"	100	Reels
YNB540	Nautica Binding	Navy	3/4"	100	Reels
YNB725	Nautica Binding	Grey	3/4"	100	Reels
YNB914	Nautica Binding	Snow White	3/4"	100	Reels



Sunbrella Binding

Soft finish, conforms easily to curves and corners.

PART	DESCRIPTION	COLOR	WIDTH	YD/REEL	ORDER BY
CB01	Sunbrella Binding	Pacific Blue	3/4"	100	Reels
CB04	Sunbrella Binding	White	3/4"	100	Reels
CB08	Sunbrella Binding	Black	3/4"	100	Reels
CB21	Sunbrella Binding	True Brown	3/4"	100	Reels



Centerfold Sunbrella Binding

Folds naturally in center due to special weave.

PART	DESCRIPTION	COLOR	WIDTH	YD/REEL	ORDER BY
CC01	Ctrfld Sunbrella Binding	Pacific Blue	7/8"	200	Reels
CC04	Ctrfld Sunbrella Binding	White	7/8"	200	Reels
CC08	Ctrfld Sunbrella Binding	Jet Black	7/8"	200	Reels
CC21	Ctrfld Sunbrella Binding	True Brown	7/8"	200	Reels
CC26	Ctrfld Sunbrella Binding	Navy	7/8"	200	Reels
CC30	Ctrfld Sunbrella Binding	Gray	7/8"	200	Reels
CC31	Ctrfld Sunbrella Binding	Burgundy	7/8"	200	Reels
CC37	Ctrfld Sunbrella Binding	Forest Green	7/8"	200	Reels
CC41	Ctrfld Sunbrella Binding	Sapphire Blue	7/8"	200	Reels



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



122 > Double-Fold Acrylic Binding

Double-Fold Acrylic Binding

Made from actual Sunbrella fabric which is slit down with edges hard-folded over to a finish width of 3/4". Sew on edges to create a fine finished look that won't fray.

ORDER

				Y D/	ORDER
PART	DESCRIPTION	COLOR	WIDTH	REEL	BY
C400	Double-Fold Acrylic Binding	Erin Green	3/4"	100	Reels
C401	Double-Fold Acrylic Binding	Pacific Blue	3/4"	100	Reels
C402	Double-Fold Acrylic Binding	Yellow	3/4"	100	Reels
C404	Double-Fold Acrylic Binding	White	3/4"	100	Reels
C406	Double-Fold Acrylic Binding	Dubonnet Twd	3/4"	100	Reels
C408	Double-Fold Acrylic Binding	Black	3/4"	100	Reels
C413	Double-Fold Acrylic Binding	Brown	3/4"	100	Reels
C414	Double-Fold Acrylic Binding	Tan	3/4"	100	Reels
C417	Double-Fold Acrylic Binding	Royal Blue	3/4"	100	Reels
C423	Double-Fold Acrylic Binding	Aquamarine	3/4"	100	Reels
C426	Double-Fold Acrylic Binding	Navy	3/4"	100	Reels
C428	Double-Fold Acrylic Binding	Toast	3/4"	100	Reels
C430	Double-Fold Acrylic Binding	Grey	3/4"	100	Reels
C431	Double-Fold Acrylic Binding	Burgundy	3/4"	100	Reels
C433	Double-Fold Acrylic Binding	Linen	3/4"	100	Reels
C437	Double-Fold Acrylic Binding	Forest Green	3/4"	100	Reels
C446	Double-Fold Acrylic Binding	Captain Navy	3/4"	100	Reels
C452	Double-Fold Acrylic Binding	Mdtrn	3/4"	100	Reels
C453	Double-Fold Acrylic Binding	Mdtrn Twd	3/4"	100	Reels
C467	Double-Fold Acrylic Binding	Mahogany	3/4"	100	Reels





Canopy Fittings & Flex-A-Rail < 123

Universal Deck Canopy Fittings

Solid plastic base with stainless clamp that pivots from side to side makes a great base for dodgers or bikinis.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
F603	Universal Deck Fitting	Stainless & Nylon	50	Each
	(includes clamp)			



End Plus Canopy Fittings

Heavy plastic end fits into 7/8" tubing leaving a stainless eye available to attach to canopy clamps or universal deck base listed above.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
F611	End Plus for 7/8" Tubing	Stainless & Nylon	50	Each
	(fasten with glue, screw or pin)			



Canopy Tube Clamps

Solid stainless tube clamp for 7/8" tubing with stainless steel counted thread screw.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
F612	Tube Clamp	Stainless	50	Each



Flex-A-Rail

Flex-A-Rail can be curved or bent in any direction, even around sharp corners if softened with a heat gun first. Drill your own screw holes, then fasten to the deck with #6 flat-head phillips screws. Unlike aluminum rail, Flex-A-Rail can be shipped by UPS, even in 100' length quantities.

PART	DESCRIPTION	COLOR	FT/LENGTH	ORDER BY
FLEX	Flex-A-Rail	Black	7.5	Lengths
PART	DESCRIPTION	COLOR	QTY/PKG	ORDER BY
. ,	DECCIAII IICII	002011	Q117/110	OKBEK B.
FLEXS	#6 FH Phillips Screw	Stainless	100	Pkg





CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



124 > Cover Hooks

Plastic Cover Hooks & Eyelets With Push-In Fastener



All plastic cover hooks and matching eyelets attach to material without the need for specialty tools or rivets.



PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FPNP107	Push-In Cover Hook	Plastic	100	Each
FPNP108	Push-In Cover Eyelet	Plastic	100	Each

Plastic Sew-On Cover Hooks & Eyelets



Sew-on cover hooks and eyelets offer another quick and strong alternative for many canvas products.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FCE	Sew On Cover Eyelet	Plastic	100	Each
FCH	Sew On Cover Hook	Plastic	100	Each

Wire Cover Hooks & Backing Plates



A proven favorite for years. All stainless wire and backing plate can be handsewn on or riveted on for quicker installation.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FHKS	Wire Cover Hook	Stainless Steel	100	Each
FHKSB	Cover Hook Backplate	Plastic	100	Each
	•			



Plastic Rivet-On Cover Hooks



Simple basic all plastic cover hook attaches with single 3/16" diameter tubular or semi-tubular rivet.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FHKP	Rivet-On Cover Hook	Plastic	100	Each



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Cover Hooks & Fasteners < 125

Plastic Lacing Cover Hooks

All plastic cover hook designed to be screwed down into solid base with two screws (not included).

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FHL	Lacing Cover Hook	Plastic	100	Each



Press-N-Snap Tool

Portable, for use on boats, quick, for use in plant. Complete with closing tool set for durable dot fasteners.

PART	DESCRIPTION	QTY/PKG	ORDER BY
TPNS	S Press-N-Snap Tool		Each
TPNS1	Press-N-Snap Basic Die Set	1	Set
TPNS2	Press-N-Snap Button Die	1	Each
TPNS3	Press-N-Snap Socket Die	1	Each
TPNS4	Press-N-Snap Eyelet Die	1	Each
TPNS5	Press-N-Snap Stud Die	1	Each
TPNS2700	Press-N-Snap Rubber Retainer	1	Each



Stayput Fasteners

Unique, no spring, no corrosion gravity-based fastener. UV-Resistant plastic with nickel-plated brass tabs and pivot pins.

PART	DESCRIPTION	MATERIAL	QTY/PKG	ORDER BY
FSFC	Stayput Fasteners	Plastic	100	Each



Hole Cutters for Fasteners

Specialized hole cutters get the job done quickly with minimal fuss. Choose between Common Sense, Turn Button, or Lift-The-Dot cutters.

PART	DESCRIPTION	FSTNR TYPE	QTY/PKG	ORDER BY
GF450	Hole Cutter	Common Sense	1	Each
0574	11.1.0.11	T D "		
GF71	Hole Cutter	Turn Button	1	Each
GF9951	Hole Cutter	Lift-The-Dot	1	Each



CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)



[•] Other dies available, please inquire. See page 75 for self piercing grommet dies.

126 > Snap Fasteners

Durable-Dot Snap Fastener Caps

Nickel coated brass is very durable and holds up for years. Choose between nickel coated, black or white enamel caps.



PART	DESCRIPTION	BARREL	MFG #	QTY/PKG	ORDER BY
G128	Nickle Cap	3/16"	X2 10128	100	Pkg
G128BK	Black Cap	3/16"		100	Pkg
G128W	White Cap	3/16"		100	Pkg
G127	Nickle Cap	1/4"	X2 10127	100	Pka

Durable-Dot Snap Fastener Sockets

Nickel coated normal action socket is perfect for most snap socket installations.



PART	DESCRIPTION	MFG #	QTY/PKG	ORDER BY
G224	Normal Action Socket	XB 10224	100	Pkg

Durable-Dot Snap Fastener Eyelets

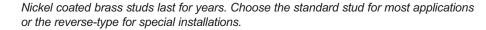
Nickel coated brass eyelets provide a low-profile backing for any Durable-Dot fitting that requires a backing plate.



PART	DESCRIPTION	BARREL	MFG #	QTY/PKG	ORDER BY
G412	Eyelet	1/4"	BS 10412	100	Pkg
G413	Eyelet	5/16"	BS 10413	100	Pkg
G414	Eyelet	3/8"	BS 10414	100	Pkg

Durable-Dot Snap Fastener Studs







PART	DESCRIPTION	MFG #	QTY/PKG	ORDER BY
G370	Standard Stud	BS 10370	100	Pkg
G342	Reversible Type Stud	XB 10342	100	Pkg

Durable-Dot Snap Fastener Screw Studs



The standard studs feature #8 self-tapping screw for quick instations. Choose between brass or stainless steel screws. The flangeless stud is nickel coated brass with a brass #10 screw designed for applications where through-bolting is required.

PART	DESCRIPTION	N SCREW	MFG #	QTY/PKG	ORDER BY
G3623	Stud	#8, 3/8" Brass Phillips	XX 10362-L	100	Pkg
G3625	Stud	#8, 5/8" Brass Phillips	XX 10362-L	100	Pkg
G3933	Stud	#8, 3/8" SS Phillips	X8 10393-L	100	Pkg
G3935	Stud	#8, 5/8" SS Phillips	X8 10393-L	100	Pkg

G7083	Flangeless Stud	#10, 3/8" Phillips	XX 10708-L	100	Pkg
G7085	Flangeless Stud	#10, 5/8" Phillips	XX 10708-L	100	Pkg



CHALLENGE SAILCLOTH, INC. (VERNON, CT)

Turnbutton Fasteners < 127

Common Sense Turnbutton Fastener Screw Base Studs

This old reliable standard is designed to be either mounted on a fixed surface or backed with washer or Dura-Dot Cap. Nickel coated brass with internal spring to prevent un-wanted knob spin. Choose between single stud for thinner fabric or double stud for thicker jobs.

PART	DESCRIPTION	BASE	MFG #	QTY/PKG	ORDER BY
GT322	Single Stud	2 Screw	XB 78322	100	Pkg
GT323	Double Stud	2 Screw	XB 78323	100	Pkg



Common Sense Turnbutton Fastener Pronged Studs

Older style installs quickly on the fly without the need for setting tools.

PART	DESCRIPTION	CLINCH	MFG #	QTY/PKG	ORDER BY
GT332	Single Stud	2 Prong	XB 78332	100	Pkg
GT333	Double Stud	2 Prong	XB 78333	100	Pkg
GT507	Clinch Plate	2 Prong	BS 78507	100	Pkg



Common Sense Turnbutton Fastener Stud Screws

Nickel coated brass with brass screw for mounting to fixed surfaces. Choose between single or double stud depending on thickness of cloth.

PART	DESCRIPTION	SCREW	MFG #	QTY/PKG	ORDER BY
GT324	Single Stud	#7, 5/8" Wood	XB 78324-L	100	Pkg
GT325	Double Stud	#7, 5/8" Wood	XB 78325-L	100	Pkg



Common Sense Turnbutton Fastener Eyelets

Strong 4-prong eyelets come in two sizes to match cloth thickness. See page 121 for eyelet cutting tool (GF450, Requires standard or recessed-slot washer listed below).

PART	DESCRIPTION	PRONGS	MFG#	QTY/PKG	ORDER BY
GT403	Eyelet	Short	BS 78403	100	Pkg
GT404	Eyelet	Long	BS 78404	100	Pkg



Common Sense Turnbutton Fastener Washers

Nickel plated brass washers for use with Common Sense Eyelets listed above. Choose between standard washer or recessed washer for a more profession look.

PART	DESCRIPTION	MFG #	QTY/PKG	ORDER BY
GT510	Washer w/Recessed Slots	BS 78510	100	Pkg
GT505	Standard Washer	BS 78505	100	Pkg



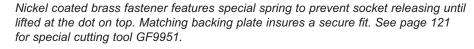
HARDWARE

CHALLENGE SAILCLOTH WEST (COSTA MESA, CA)

128 > Lift-The-Dot Fasteners

Lift-The-Dot Fastener Sockets & Plates







PART	DESCRIPTION	MFG #	QTY/PKG	ORDER BY
GL205	Socket	XX 16205	100	Pkg
GL506	Clinch Plate	BS 16506	100	Pkg

Lift-The-Dot Fastener Press-On Studs & Washers



Press on nickel coated brass stud offers the "cleanest" installation in fabric applications. Requires matching washer and closing tool to close.

PART	DESCRIPTION	TYPE	MFG #	QTY/PKG	ORDER BY
GL358	Press-On Stud	Single Eyelet	XB 16358	100	Pkg
GL509	Press-On Washer	Single Eyelet	BS 16509	100	Pkg

Lift-The-Dot Fastener Single Studs



Prong style stud and matching washer is easy installation in fabric without the need for special tools.

PART	DESCRIPTION	CLINCH	MFG #	QTY/PKG	ORDER BY
GL349	Single Stud	2 Prongs	BS 16349	100	Pkg
GL501	Single Stud Washer	2 Prongs	BS 16501	100	Pkg

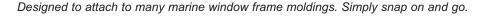
Lift-The-Dot Fastener Studs



Best choice for installing studs into solid surfaces. Choose between machine screw for through-bolting or self-tapping screws for situations where through bolting is not desired.

PART	DESCRIPTION	SCREW	MFG#	QTY/PKG	ORDER BY
GL362	Stud	#8, 3/8" Machine	XB 16362-L	100	Pkg
GL3173	Stud	#8, 3/8" Wood	XB 16317	100	Pkg
GL3175	Stud	#8, 5/8" Wood	XB 16317	100	Pkg

Lift-The-Dot Fastener Windshield Clips





PART	DESCRIPTION	FITS	MFG #	QTY/PKG	ORDER BY
GL6376	Windshield Clip	3/4" Molding	X816376	100	Pkg
GL6377	Windshield Clip	7/8" Molding	X816377	100	Pkg



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