

ESP Jib Reefing & Furling

FOR CRUISING SAILORS

The ESP Furler is designed for the daysailer and cruiser looking for an easy-to assemble furler with an elegant design. Install a Harken® ESP Furler and trim safely from the cockpit when it blows; unfurl instead of motoring when it's light, for a great day of sailing.

To make assembly easier, Harken offers top foils in five pre-cut lengths—no hacksaw required. An adjustable bottom foil fine-tunes the unit. Foils slip over most existing headstays without cutting the headstay, reducing set-up time even more.

DETAILS MAKE THE DIFFERENCE

EASY ASSEMBLY AND INSTALLATION

Top foil offered in 5 sizes to fit headstay length requirements of the boat. Bottom foil adjusts to fine-tune your final length—no hacksaw required. Bottom foil adjusts to fine-tune length. Shackle at the tack and head attach the sail to the furler, with sail shape controlled by halyard tension. Marine eye and headstay wire pass through the foil so there is no need to cut the wire during installation.

STANDS UP TO ELEMENTS

Spool is made from Hard Lube-anodized aluminum. Cover, flange, and guard are molded from glass reinforced polymers for high strength. Foils are clearcoat-anodized for durability. The stainless steel sail feeder is strong and durable.

LONG OR SHORT LEG KITS TO ADJUST DRUM HEIGHT

Choose the long leg extension kit when using a turnbuckle with swage, Norseman or Sta-Lok® terminals. Long legs raise the drum to clear the anchor, reduce sail chafe, and increase visibility. Removable clamp screws allow legs to pivot out of the way for easy access to the turnbuckle.

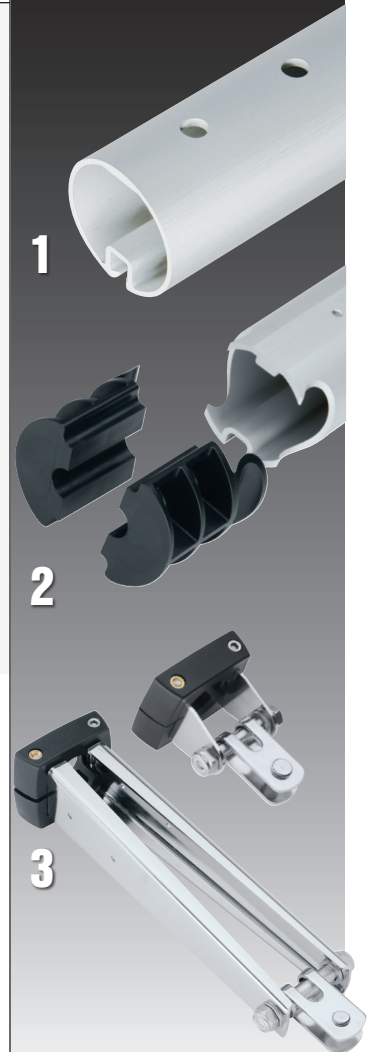
Choose the short leg extension kit when the furler attaches directly to a marine eye at the bottom of the stay. Short legs allow the sail to be closer to the deck.

OPTIONS

An optional halyard deflector, installed above the foil, prevents the jib halyard and other halyards (such as a spinnaker or additional jib halyards) from wrapping around the foil when furling.

Strong, lightweight stanchion-mounted blocks are offered to lead line aft for safe furling from the cockpit.

Line not included



1. Single-Groove Round Foil

Round foil profile withstands extreme reefing loads for secure furling. Rolls more easily than flat foil shapes.

2. Strong Foil Joints

Tough foil joints withstand years of torque loading. Connector interlocks with foil and secures with screws. No extra adhesive needed for a secure lock.

3. Long or Short Leg Extension Kits

Choose long leg extensions for furlers with turnbuckles; short leg extensions when furler attaches directly to a marine eye fitted to the end of the stay.

Ordering Furling

1. Choose furler type

The table below is based on sailing style and approximate boat size.

This table is only a guideline. Do not use it to determine unit size.

Size is based on the headstay and clevis pin diameters listed on unit pages.

Comparison Chart

	MKIV Racers/Performance Cruisers	ESP Daysailors, Coastal Cruisers
Note: Typical boat lengths are listed as a guideline but are not the determining factor. Check with Harken® if your length varies.		
Typical Boat Lengths	Unit 0: 22 - 30 ft (6.5 - 9.1 m) Unit 1: 28 - 36 ft (8.5 - 11 m) Unit 2: 35 - 46 ft (10 - 14.2 m) Unit 3: 45 - 60 ft (13.7 - 18.3 m) Unit 4: 65 - 80 ft (19.8 - 24.4 m)	Unit 0: 20 - 28 ft (6 - 8.5 m) Unit 1: 26 - 35 ft (8 - 10.7 m) Unit 2: 34 - 46 ft (10.4 - 14 m) Unit 3: 45 - 61 ft (13.7 - 18.6 m)
Foils	Double groove Air Foil® Stainless steel feeder	Single Groove Round Foil Stainless steel feeder
Halyard and Tack Swivel	Independent swivels for improved sail shape	Fixed
Drum	Removable split drum for racing	Fixed
Line	Included on Units 0, 1, 2	Not Included

2. Determine unit size

Size is based on the headstay and clevis pin diameters listed on unit pages.

3. Determine if additional foils needed, ESP - Order top foil

Use the I and J measurements to determine the length of the headstay. If the existing headstay is longer than the standard length listed under **Headstay Length** on unit pages, order additional foils and connectors. All ESP furlers require that you order a precut top foil. See unit pages 169-172.

4. Determine Toggle, Link Plate or Leg Kit

See the **MKIV & ESP Toggle & Rigging Options** page 175 to determine toggle and rigging requirements.

5. Choose lead block kit and accessories, ESP - Order line

Harken® recommends equipping every furling system with a ratchet lead block kit. Other parts on the **Furling Accessories** page 181 include equipment for halyard management and racing hardware for faster sail changes. Order line for ESP furlers.

6. Prepare sail and headstay

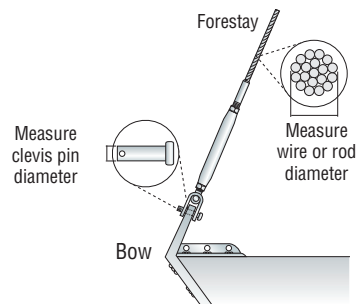
Have a luff tape added to your genoa. Match the sail luff length of the stay length minus the height of the halyard swivel and lower unit. See sizing information on page 162.

All MKIV and those ESP furlers with long leg kits install over the existing turnbuckle. The turnbuckle is accessible for adjustment by raising the drum. Some headstays will require cutting and shortening to fit Harken toggle. Sometimes only the lower threaded turnbuckle fitting needs changing. Check with a professional rigger on stay condition before reusing stay.

For all units, rod rigging requires a Harken rod adapter stud and it must be cut and coldheaded by an authorized rod service center.

7. Contact

If you have any questions, please contact your dealer or Harken Technical Service.



$$\text{Headstay Length} = \sqrt{I^2 + J^2}$$

NEW

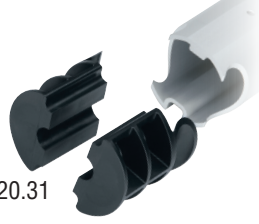


HFG594
Optional

7420 -4



7320.31



7320.30



7320.34

OPTIONAL PARTS

ESP Unit 0

Typical Boat Length 20' - 28' (6 - 8.5 m)

Wire Ø	Rod Ø	Clevis Pin Ø
5/32", 3/16", 4, 5 mm	-4 (4.37 mm)	5/16", 3/8" (8 mm, 9.5 mm)

Headstay Length* Standard 36'7" (11.15 m); max 43'2" (13.15 m)

Part No.	Description
7320.10	Furling system

Leg Kit Required - order separately See toggle and rigging options page 175

7320.20 5/16**	Short leg kit with toggle with 5/16" (8 mm) clevis pin. Not for turnbuckle
7320.20 3/8**	Short leg kit with toggle with 3/8" (9.5 mm) clevis pin. Not for turnbuckle
7320.21 5/16‡	Long leg kit with toggle with 5/16" (8 mm) clevis pin
7320.21 3/8‡	Long leg kit with toggle with 3/8" (9.5 mm) clevis pin

Top Foil Required - order separately See choosing top foil length below

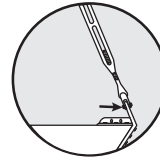
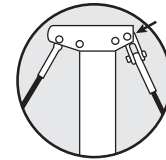
7320.34 400	Top foil 15 3/4" (40 cm)
7320.34 800	Top foil 31 1/2" (80 cm)
7320.34 1200	Top foil 47 1/4" (1.2 m)
7320.34 1600	Top foil 63" (1.6 m)
7320.34 2000	Top foil 78 3/4" (2 m)

Optional Parts

7320.30	Extra 6.5' (2 m) luff foil extrusion
7320.31	Extra 8.5" (216mm) standard connector with bushings
7420 -4	-4 Rod adaptor stud (thread Ø UNF 7/16")
HFG594‡‡	7 mm x 55' (16.8 m) polyester double braid line. Line not included

*Standard and max lengths determined using 7320.34 2000 top foil. When using long leg kits add 5" (.13 m)

**Use with no turnbuckle ‡Use with conventional turnbuckle ‡‡To use own line, figure 2 X boat length



Pin-to-pin measurement points

Unit 0 – Choosing Top Foil Length

To choose top foil, find your pin-to-pin length in the chart below and refer to last column.

		Min		Max		Min		Max		Min		Max		Top Foil Part No.
Short leg kit		5.15 m	5.54 m	7.15 m	7.54 m	9.15 m	9.54 m	11.15 m	11.54 m	7320.34 400				
		5.55 m	5.94 m	7.55 m	7.94 m	9.55 m	9.94 m	11.55 m	11.94 m	7320.34 800				
		5.95 m	6.34 m	7.95 m	8.34 m	9.95 m	10.34 m	11.95 m	12.34 m	7320.34 1200				
		6.35 m	6.74 m	8.35 m	8.74 m	10.35 m	10.74 m	12.35 m	12.74 m	7320.34 1600				
		6.75 m	7.14 m	8.75 m	9.14 m	10.75 m	11.14 m	12.75 m	13.14 m	7320.34 2000				
Long leg kit		5.28 m	5.67 m	7.28 m	7.67 m	9.28 m	9.67 m	11.28 m	11.67 m	7320.34 400				
		5.68 m	6.07 m	7.68 m	8.07 m	9.68 m	10.07 m	11.68 m	12.07 m	7320.34 800				
		6.08 m	6.47 m	8.08 m	8.47 m	10.08 m	10.47 m	12.08 m	12.47 m	7320.34 1200				
		6.48 m	6.87 m	8.48 m	8.87 m	10.48 m	10.87 m	12.48 m	12.87 m	7320.34 1600				
		6.88 m	7.27 m	8.88 m	9.27 m	10.88 m	11.27 m	12.88 m	13.27 m	7320.34 2000				
Short leg kit		16'11"	18'2"	23'5 1/2"	24'9"	30'1/2"	31'3 1/2"	36'7"	37'10 1/2"	7320.34 400				
		18'2 1/2"	19'6"	24'9 1/2"	26'1 1/2"	31'4"	32'7 1/2"	37'11"	39'2"	7320.34 800				
		19'6 1/2"	20'9 1/2"	26'1"	27'4 1/2"	32'8"	33'11"	39'2 1/2"	40'6"	7320.34 1200				
		20'10"	22'1 1/2"	27'5"	28'8"	33'11 1/2"	35'3"	40'6 1/2"	41'9 1/2"	7320.34 1600				
		22'2"	23'5"	28'8 1/2"	30'	35'3 1/2"	36'6 1/2"	41' 10"	43'1 1/2"	7320.34 2000				
Long leg kit		17'4"	18'7"	23'10 1/2"	25'2"	30'5 1/2"	31'8 1/2"	37'	38'3 1/2"	7320.34 400				
		18'7 1/2"	19'11"	25'2 1/2"	26'5 1/2"	31'9"	33'1 1/2"	38'4"	39'7"	7320.34 800				
		19'11 1/2"	21'2 1/2"	26'6"	27'9 1/2"	33'1"	34'4"	39'7 1/2"	40'11"	7320.34 1200				
		21'3"	22'6 1/2"	27'10"	29'1"	34'4 1/2"	35'8"	40'11 1/2"	42'2 1/2"	7320.34 1600				
		22'7"	23'10"	29'1 1/2"	30'5"	35'8 1/2"	36'11 1/2"	42'3"	43'6 1/2"	7320.34 2000				

Long leg kit

Short leg kit

NEW

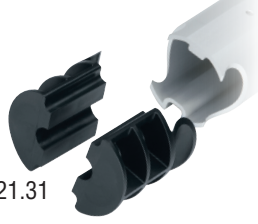


Optional
HFG233

7421 -6
7422 -8
7423 -10



7321.31



7321.30



7321.34

OPTIONAL PARTS

ESP Unit 1

Typical Boat Length 26' - 35' (7.9 - 10.6 m)

Wire Ø	Rod Ø	Clevis Pin Ø
7/32", 1/4", 5/16", 9/32" (6, 7, 8 mm)	-6, -8, -10 (5.03, 5.72, 6.35 mm)	7/16", 1/2" (11, 12.7 mm)

Headstay Length* Standard 49'11" (15.22 m); max 56'6" (17.22 m)

Part No.	Description
7321.10	Furling system

Leg Kit Required - order separately See toggle and rigging options page 175

7321.20 7/16**	Short leg kit with toggle with 7/16" (11 mm) clevis pin. Not for turnbuckle
7321.20 1/2**	Short leg kit with toggle with 1/2" (12.7 mm) clevis pin. Not for turnbuckle
7321.21 7/16‡	Long leg kit with toggle with 7/16" (11 mm) clevis pin
7321.21 1/2‡	Long leg kit with toggle with 1/2" (12.7 mm) clevis pin

Top Foil Required - order separately See choosing top foil length below

7321.34 400	Top foil 15 3/4" (40 cm)
7321.34 800	Top foil 31 1/2" (80 cm)
7321.34 1200	Top foil 47 1/4" (1.2 m)
7321.34 1600	Top foil 63" (1.6 m)
7321.34 2000	Top foil 78 3/4" (2 m)

Optional Parts

7321.30	Extra 6.5' (2 m) luff foil extrusion
7321.31	Extra 9' (229 m) standard connector
7421 -6	-6 Rod adaptor stud (thread Ø UNF 7/16")
7422 -8	-8 Rod adaptor stud (thread Ø UNF 1/2")
7423 -10	-10 Rod adaptor stud (thread Ø UNF 1/2")
HFG233‡‡	7 mm x 70' (21.3 m) polyester double braid line. Line not included

*Standard and max lengths determined using 7321.34 2000 top foil. When using long leg kits add 8 1/2" (.22 m)

**Use with no turnbuckle ‡Use with conventional turnbuckle ‡‡To use own line, figure 2 X boat length



Unit 1 – Choosing Top Foil Length

To choose top foil, find your pin-to-pin length in the chart below and refer to last column.

	Min	Max	Min	Max	Min	Max	Min	Max	Top Foil Part No.
Short leg kit	9.23 m	9.615 m	11.23 m	11.615 m	13.23 m	13.615 m	15.23 m	15.615 m	7321.34 400
	9.63 m	10.015 m	11.63 m	12.015 m	13.63 m	14.015 m	15.63 m	16.015 m	7321.34 800
	10.03 m	10.415 m	12.03 m	12.415 m	14.03 m	14.415 m	16.03 m	16.415 m	7321.34 1200
	10.43 m	10.815 m	12.43 m	12.815 m	14.43 m	14.815 m	16.43 m	16.815 m	7321.34 1600
	10.83 m	11.215 m	12.83 m	13.215 m	14.83 m	15.215 m	16.83 m	17.215 m	7321.34 2000
Long leg kit	9.45 m	9.835 m	11.45 m	11.835 m	13.45 m	13.835 m	15.45 m	15.835 m	7321.34 400
	9.85 m	10.235 m	11.85 m	12.235 m	13.85 m	14.235 m	15.85 m	16.235 m	7321.34 800
	10.25 m	10.635 m	12.25 m	12.635 m	14.25 m	14.635 m	16.25 m	16.635 m	7321.34 1200
	10.65 m	11.035 m	12.65 m	13.035 m	14.65 m	15.035 m	16.65 m	17.035 m	7321.34 1600
	11.05 m	11.435 m	13.05 m	13.435 m	15.05 m	15.435 m	17.05 m	17.435 m	7321.34 2000
Short leg kit	30'3 1/2"	31'6 1/2"	36'10"	38'1"	43'4 1/2"	44'8"	49'11 1/2"	51'2 1/2"	7321.34 400
	31'7"	32'10"	38'1 1/2"	39'5"	44'8 1/2"	45'11 1/2"	51'3"	52'6 1/2"	7321.34 800
	32'10 1/2"	34'2"	39'5 1/2"	40'8 1/2"	47"	47'3 1/2"	52'7"	53'10"	7321.34 1200
	34'2 1/2"	35'5 1/2"	40'9"	42'1 1/2"	47'4"	48'7"	53'10 1/2"	55'2"	7321.34 1600
	35'6"	36'9 1/2"	42'1"	43'4"	48'7 1/2"	49'11"	55'2 1/2"	56'5 1/2"	7321.34 2000
Long leg kit	31'	32'3"	37'6 1/2"	38'10"	44'1 1/2"	45'4 1/2"	50'8"	51'11 1/2"	7321.34 400
	32'3 1/2"	33'7"	38'10 1/2"	40'1 1/2"	45'5"	46'8 1/2"	52'	53'3"	7321.34 800
	33'7 1/2"	34'10 1/2"	40'2"	41'5 1/2"	46'9"	48'	53'3 1/2"	54'7"	7321.34 1200
	34'11"	36'2 1/2"	41'6"	42'9"	48'1 1/2"	49'4"	54'7 1/2"	55'10 1/2"	7321.34 1600
	36'3"	37'6"	42'9 1/2"	44'1"	49'4 1/2"	50'7 1/2"	55'11"	57'2 1/2"	7321.34 2000

Long leg kit

Short leg kit



Optional HFG235
7424 -12
7425 -17
7426 -22



7322.31



7322.30



7322.34

OPTIONAL PARTS

ESP Unit 2

Typical Boat Length 34' - 46' (10.4 - 14 m)

Wire Ø	Rod Ø	Clevis Pin Ø
5/16", 3/8", 7/16" (8, 10, 12 mm)	-12 -17, -22 (7.14, 8.38, 9.53 mm)	5/8", 3/4" (15.9, 19.1 mm)

Headstay Length* Standard 63'5" (19.33 m); max 70' (21.33 m)

Part No.	Description
7322.10	Furling system

Leg Kit Required - order separately See toggle and rigging options page 175

7322.20 5/8**	Short leg kit with toggle with 5/8" (15.9 mm) clevis pin. Not for turnbuckle
7322.20 3/4**	Short leg kit with toggle with 3/4" (19.1 mm) clevis pin. Not for turnbuckle
7322.21 5/8‡	Long leg kit with toggle with 5/8" (15.9 mm) clevis pin
7322.21 3/4‡	Long leg kit with toggle with 3/4" (19.1 mm) clevis pin

Top Foil Required - order separately See choosing top foil length below

7322.34 400	Top foil 15 3/4" (40 cm)
7322.34 800	Top foil 31 1/2" (80 cm)
7322.34 1200	Top foil 47 1/4" (1.2 m)
7322.34 1600	Top foil 63" (1.6 m)
7322.34 2000	Top foil 78 3/4" (2 m)

Optional Parts

7322.30	Extra 6.5' (2 m) luff foil extrusion
7322.31	Extra 9.5" (24 cm) standard connector with bushings
7424 -12	-12 Rod adaptor stud (thread Ø UNF 5/8")
7425 -17	-17 Rod adaptor stud (thread Ø UNF 5/8")
7426 -22	-22 Rod adaptor stud (thread Ø UNF 3/4")
HFG235‡‡	8 mm x 100' (30.5 m) polyester double braid line. Line not included

*Standard and max lengths determined using 7322.34 2000 top foil. When using long leg kits add 12" (.3 m)

**Use with no turnbuckle ‡Use with conventional turnbuckle ‡‡To use own line figure 2 X boat length



7322.20 5/8
7322.20 3/4

7322.21 5/8
7322.21 3/4

Pin-to-pin measurement points

Unit 2 – Choosing Top Foil Length

To choose top foil, find your pin-to-pin length in the chart below and refer to last column.

	Min		Max		Min		Max		Min		Max		Top Foil Part No.
Short leg kit	13.33 m	13.73 m	15.34 m	15.73 m	17.34 m	17.73 m	19.34 m	19.73 m	7322.34 400				
	13.74 m	14.13 m	15.74 m	16.13 m	17.74 m	18.13 m	19.74 m	20.13 m	7322.34 800				
	14.14 m	14.53 m	16.14 m	16.53 m	18.14 m	18.53 m	20.14 m	20.53 m	7322.34 1200				
	14.54 m	14.93 m	16.54 m	16.93 m	18.54 m	18.93 m	20.54 m	20.93 m	7322.34 1600				
	14.94 m	15.33 m	16.94 m	17.33 m	18.94 m	19.33 m	20.94 m	21.33 m	7322.34 2000				
Long leg kit	13.63 m	14.03 m	15.64 m	16.03 m	17.64 m	18.03 m	19.63 m	20.03 m	7322.34 400				
	14.04 m	14.43 m	16.04 m	16.43 m	18.04 m	18.43 m	20.04 m	20.43 m	7322.34 800				
	14.44 m	14.83 m	16.44 m	16.83 m	18.44 m	18.83 m	20.44 m	20.83 m	7322.34 1200				
	14.84 m	15.23 m	16.84 m	17.23 m	18.84 m	19.23 m	20.84 m	21.23 m	7322.34 1600				
	15.24 m	15.63 m	17.24 m	17.63 m	19.24 m	19.63 m	21.24 m	21.63 m	7322.34 2000				
Short leg kit	43'8 1/2"	45'1 1/2"	50'4"	51'7"	56'10 1/2"	58'2"	63'5 1/2"	64'8 1/2"	7322.34 400				
	45'1"	46'4"	51'7 1/2"	52'11"	58'2 1/2"	59'5 1/2"	64'9"	66'1 1/2"	7322.34 800				
	46'4 1/2"	47'8"	52'11 1/2"	54'2 1/2"	59'6"	60'9 1/2"	66'1"	67'4"	7322.34 1200				
	47'8 1/2"	48'11 1/2"	54'3"	55'6 1/2"	60'10"	62'1"	67'4 1/2"	68'8"	7322.34 1600				
	49'	50'3 1/2"	55'7"	56'10"	62'1 1/2"	63'5"	68'8 1/2"	69'11 1/2"	7322.34 2000				
Long leg kit	44'8 1/2"	46'	51'4"	52'7"	57'10 1/2"	59'2"	64'5 1/2"	65'8 1/2"	7322.34 400				
	46'1 1/2"	47'4"	52'7 1/2"	53'11"	59'2 1/2"	60'5 1/2"	65'9"	67'	7322.34 800				
	47'4 1/2"	47'7 1/2"	53'11 1/2"	55'2 1/2"	60'6"	61'9 1/2"	67'1 1/2"	68'4"	7322.34 1200				
	48'8"	49'11 1/2"	55'3"	56'6 1/2"	61'10"	63'1"	68'4 1/2"	69'7 1/2"	7322.34 1600				
	50'	51'3 1/2"	56'7"	57'10"	63'1 1/2"	64'5"	69'8"	70'11 1/2"	7322.34 2000				

Long leg kit

Short leg kit

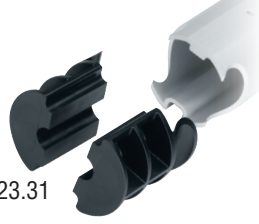
NEW



7426 -22
Optional 7427 -30
See Below 7428 -40



7323.31



7323.30



7323.34

OPTIONAL PARTS

ESP Unit 3

Typical Boat Length 45' - 61' (13.7 - 18.6 m)

Wire Ø	Rod Ø	Clevis Pin Ø
1/2", 5/16", 3/8" (12.7, 14, 16 mm)	-22, -30, -40 (9.53, 11.10, 12.7 mm)	7/8", 1" (22.2, 25.4 mm)

Headstay Length* Standard 77'1" (23.5 m); max 83'8" (25.5 m)

Part No.	Description
7323.10	Furling system

Leg Kit Required - order separately See toggle and rigging options page 175

7323.20 7/8**	Short leg kit with toggle with 7/8" (22.2 mm) clevis pin. Not for turnbuckle
7323.20 1**	Short leg kit with toggle with 1" (25.4 mm) clevis pin. Not for turnbuckle
7323.21 7/8‡	Long leg kit with toggle with 7/8" (22.2 mm) clevis pin
7323.21 1‡	Long leg kit with toggle with 1" (25.4 mm) clevis pin

Top Foil Required - order separately See choosing top foil length below

7323.34 400	Top foil 15 3/4" (40 cm)
7323.34 800	Top foil 31 1/2" (80 cm)
7323.34 1200	Top foil 47 1/4" (1.2 m)
7323.34 1600	Top foil 63" (1.6 m)
7323.34 2000	Top foil 78 3/4" (2 m)

Optional Parts

7323.30	Extra 6.5' (2 m) luff foil extrusion
7323.31	Extra 10.5' (26.7 cm) standard connector
7426 -22	-22 Rod adaptor stud (thread Ø UNF 3/4")
7427 -30	-30 Rod adaptor stud (thread Ø UNF 7/8")
7428 -40	-40 Rod adaptor stud (thread Ø UNF 1")

*Use 7/16" (10, 12 mm) polyester double braid line not supplied by Harken. To figure line length use 2 X boat length

*Standard and max lengths determined using 7323.34 2000 top foil. When using long leg kits add 14 1/2" (.37 m)

**Use with no turnbuckle ‡Use with conventional turnbuckle



7323.20 7/8
7323.20 1

7323.21 7/8
7323.21 1

Unit 3 – Choosing Top Foil Length

To choose top foil, find your pin-to-pin length in the chart below and refer to last column.

	Min	Max	Min	Max	Min	Max	Min	Max	Top Foil
									Part No.
Short leg kit	17.51	17.9	19.51	19.9	21.51	21.9	23.51	23.9	7323.34 400
	17.91	18.3	19.91	20.3	21.91	22.3	23.91	24.3	7323.34 800
	18.31	18.7	20.31	20.7	22.31	22.7	24.31	24.7	7323.34 1200
	18.71	19.1	20.71	21.1	22.71	23.1	24.71	25.1	7323.34 1600
	19.11	19.5	21.11	21.5	23.11	23.5	25.11	25.5	7323.34 2000
Long leg kit	17.88	18.27	19.88	20.27	21.88	22.27	23.88	24.27	7323.34 400
	18.28	18.67	20.28	20.67	22.28	22.67	24.28	24.67	7323.34 800
	18.68	19.07	20.68	21.07	22.68	23.07	24.68	25.07	7323.34 1200
	19.08	19.47	21.08	21.47	23.08	23.47	25.08	25.47	7323.34 1600
	19.48	19.87	21.48	21.87	23.48	23.87	25.48	25.87	7323.34 2000
Short leg kit	57'5 1/2"	58'8 1/2"	64'	65'3 1/2"	70'7"	71'10"	77'1 1/2"	78'5"	7323.34 400
	58'9"	60' 1/2"	65'4"	66'7"	71'10 1/2"	73'2"	78'5 1/2"	79'8 1/2"	7323.34 800
	60'1"	61'4"	66'7 1/2"	67'11"	73'2 1/2"	74'5 1/2"	79'9"	81' 1/2"	7323.34 1200
	61'4 1/2"	62'8"	67'11 1/2"	69'2 1/2"	74'6"	75'9 1/2"	81'1"	82'4"	7323.34 1600
	62'8 1/2"	63'11 1/2"	69'3"	70'6 1/2"	75'10"	77'1"	82'4 1/2"	83'8"	7323.34 2000
Long leg kit	58'8"	59'11"	65'2 1/2"	66'6"	71'9 1/2"	73' 1/2"	78'4"	79'7 1/2"	7323.34 400
	59'11 1/2"	61'3"	66'6 1/2"	67'9 1/2"	73'1"	74'4 1/2"	79'8"	80'11"	7323.34 800
	61'3 1/2"	62'6 1/2"	67'10"	69'1 1/2"	74'5"	75'8"	80'11 1/2"	82'3"	7323.34 1200
	62'7"	63'10 1/2"	69'2"	70'5"	75'8 1/2"	77"	82'3 1/2"	83'6 1/2"	7323.34 1600
	63'11"	65'2"	70'5 1/2"	71'9"	77'1 1/2"	78'3 1/2"	83'7"	84'10 1/2"	7323.34 2000

Long leg kit

Short leg kit

Furling Accessories

Carbo Furling Lead Block Assemblies

Harken® recommends equipping every system with Carbo lead blocks for safe furling from the cockpit. The 7404 kit's lightweight, UV-stabilized Carbo blocks run exclusively on ball bearings for fast trimming under any load.

A 7402 ratchet maintains tension when spooling so the unit can furl smoothly and easily. The 7403 outboard assembly allows furling line to travel outboard of the stanchion to keep the sidedeck clear. Block mounts with a strong four-screw clamp without removing the stanchion or lifelines. Use the 7401 block on the bow pulpit as an inboard lead. Use the 7405 as an inboard lead for two lines, useful for continuous line furlers or cutter rigged boats with two furlers. 7401, 7402, and 7405 have ball-and-socket bases to align blocks for smooth leads aft. The 7404 lead block kit provides a complete system for most boats.

Stanchion Mount Bases

The 061 bases for Carbo and Classic blocks lead furling line inside the stanchion.

Halyard Restrainers

The Halyard Restraint keeps the halyard against the mast. This provides a better angle to the halyard swivel and prevents it from wrapping around the foil.

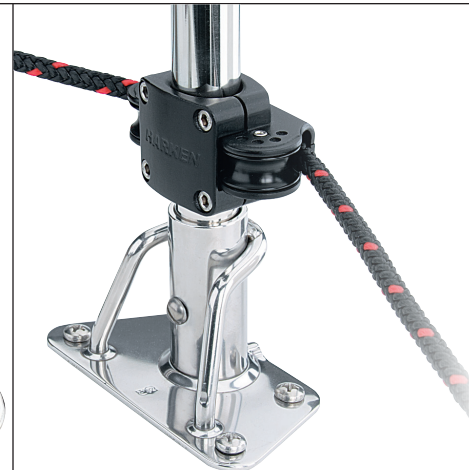
Stainless steel brackets feature hardcoat-anodized aluminum sheaves that accommodate both wire and rope.

Halyard Deflector

The Halyard Deflector prevents the jib halyard and other halyards (such as a spinnaker or additional jib halyards) from wrapping around the foil.

Prefeeder and Snap Shackles

Prefeeder and snap shackles facilitate fast sail changes. The 7006 prefeeder features hardcoat-anodized rollers with low-friction bushings.



The 7403 outboard assembly allows furling line to travel outboard of the stanchion to keep the sidedeck clear

Part No.	Description	Sheave Ø		Weight		Max line Ø		Maximum working load		Use with
		in	mm	oz	g	in	mm	lb	kg	
061	Stanchion mount base*	—	—	2	57	—	—	350	159	7/8", 1" (22, 25 mm) stanchions
448	Fixed lead for bulwark	1½	38	2.1	60	¾	10	300	136	0/1/2
449	Fixed lead for bulwark	1½	35	2.1	60	¾	10	500	227	3/3.25
884	Snap shackle	—	—	2.3	65	—	—	1500	680	00AL, MKIV 0/1
885	Snap shackle	—	—	5	141	—	—	2300	1040	MKIV 2
944	Halyard restrainer**	15/16	25	3	85	—	—	—	—	00AL/0/1
945	Halyard restrainer**	1¼	31	6	170	—	—	—	—	2/3/3.25
7301	Halyard deflector	—	—	1.6	45	—	—	—	—	MKIV and ESP Unit 0
7302	Halyard deflector	—	—	2.4	68	—	—	—	—	MKIV and ESP Unit 1
7303	Halyard deflector	—	—	4.8	136	—	—	—	—	MKIV and ESP Unit 2
7304	Halyard deflector	—	—	8	227	—	—	—	—	MKIV and ESP Unit 3
947	Prefeeder	—	—	1	28	—	—	—	—	All
7006	Carbo racing foil prefeeder	—	—	3	85	—	—	—	—	All
7401	40 mm Carbo lead block assembly	1½/16	40	3.7	106	¾	10	485	220	1" (25 mm) stanchions
7402	57 mm Carbo ratchet lead block assembly	2¼	57	5.4	152	¾	10	500	227	1" (25 mm) stanchions
7403	29 mm Outboard lead block assembly	1½	29	3	84	¾	10	—	—	1" (25 mm) stanchions
7404	Lead block kit***	Kit includes 3 x 7403 / 1 x 7401 / 1 x 7402 / 1 cleat								
7405	40mm Carbo stanchion mount double lead	1½/16	40	5.6	159	¾	10	485	220	1" (25 mm) stanchions
7430	Powered furling crank handle	—	—	7	198	—	—	—	—	Electric/hydraulic furling
7431	Powered furling drill adapter	—	—	2.5	71	—	—	—	—	Electric/hydraulic furling

*Stanchion mount base fits Classic Bullet, Big Bullet, 2.25 in, 57 mm Carbo single blocks, and ratchet blocks with swivel post **10 RH (5 mm) fasteners

***Max line Ø: ¾" (10 mm); Weight: 19.2 oz (544 g)

Furling Dimensions

System	Unit	C				E		F		G		J			
		A	B	Max	D	Max	Min	Max	Min	Max	Min	H	I	Max	Min
MKIV*	0	3 ³ / ₄ "	5 ¹ / ₈ "	9 ⁷ / ₈ "	1 ⁷ / ₈ "	41"	39 ¹ / ₂ "	8 ⁵ / ₈ "	8 ¹ / ₄ "	7 ⁵ / ₁₆ "	7 ⁹ / ₁₆ "	5 ¹ / ₂ "	2 ⁵ / ₈ "	2 ⁵ / ₁₆ "	2 ⁹ / ₁₆ "
		96 mm	150 mm	250 mm	47 mm	1041 mm	1003 mm	213 mm	209 mm	186 mm	183 mm	140 mm	66 mm	59 mm	56 mm
	1	4 ³ / ₄ "	7"	13"	2"	46 ¹ / ₄ "	42 ¹ / ₄ "	12"	9 ³ / ₄ "	11"	8 ³ / ₄ "	6 ⁵ / ₈ "	3 ¹ / ₁₆ "	5"	2 ⁷ / ₈ "
		120 mm	178 mm	330 mm	51 mm	1175 mm	1073 mm	305 mm	247 mm	280 mm	222 mm	167 mm	78 mm	129 mm	71 mm
	2	5 ⁵ / ₈ "	9 ¹ / ₈ "	16"	2 ⁹ / ₁₆ "	51 ³ / ₄ "	46 ³ / ₄ "	15 ¹ / ₈ "	12 ¹ / ₁₆ "	13 ¹⁵ / ₁₆ "	10 ⁷ / ₈ "	8 ³ / ₁₆ "	3 ¹³ / ₁₆ "	6 ⁷ / ₁₆ "	3 ³ / ₈ "
	143 mm	231 mm	406 mm	66 mm	1314 mm	1187 mm	384 mm	306 mm	348 mm	276 mm	208 mm	97 mm	164 mm	85 mm	
3		7 ⁵ / ₁₆ "	11 ⁵ / ₈ "	18"	3 ³ / ₈ "	50 ⁷ / ₈ "	50 ⁹ / ₁₆ "	18 ¹ / ₁₆ "	18 ¹ / ₁₆ "	16 ¹³ / ₁₆ "	16 ¹ / ₂ "	9 ³ / ₄ "	4 ³ / ₄ "	7 ¹¹ / ₁₆ "	7 ¹ / ₈ "
		186 mm	296 mm	457 mm	86 mm	1293 mm	1278 mm	474 mm	460 mm	427 mm	413 mm	247 mm	121 mm	195 mm	180 mm
4	8 ¹⁵ / ₁₆ "	**	21"	**	55 ⁹ / ₁₆ "	55 ¹ / ₁₆ "	**	**	20 ¹ / ₄ "	19 ¹³ / ₁₆ "	11 ¹ / ₁₆ "	5 ¹ / ₈ "	8 ⁷ / ₈ "	8 ⁷ / ₁₆ "	
	227 mm		533 mm		1411 mm	1399 mm			515 mm	503 mm	280 mm	130 mm	225 mm	214 mm	

*See MKIV Long Link Plate dimensions below ** Soft-attachment tack, head, and halyard; distance varies

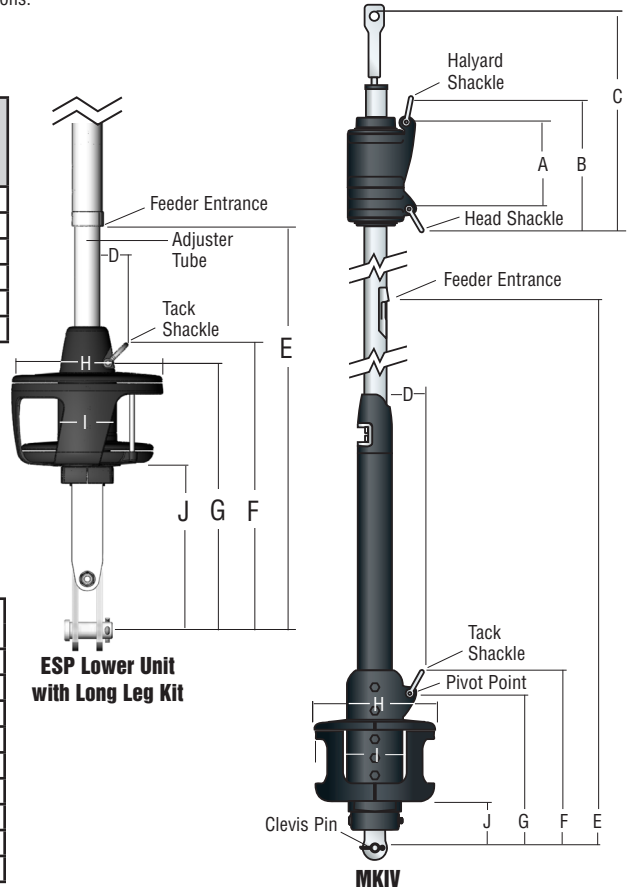
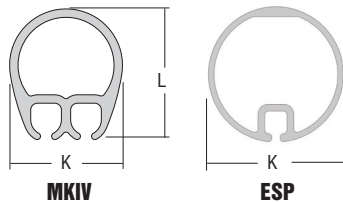
System	Unit with Leg Kit	E											
		A	B	C ‡	D	Max ††	Min ††	F	G	H	I	J	
ESP	0	7320.20 Short	1 7/8"	4 9/16"	8 1/2"	1 3/8"	37 7/8"	22 1/2"	8 5/16"	7 7/16"	6 1/2"	2 5/8"	3"
			48 mm	116 mm	215 mm	36 mm	962 mm	572 mm	211 mm	190 mm	166 mm	66 mm	76 mm
	1	7320.21 Long	1 7/8"	4 9/16"	8 1/2"	1 3/8"	43"	27 5/8"	13 7/16"	12 9/16"	6 1/2"	2 5/8"	8 1/8"
			48 mm	116 mm	215 mm	36 mm	1092 mm	702 mm	341 mm	320 mm	166 mm	66 mm	206 mm
	2	7321.20 Short	2 3/4"	5 1/8"	9"	1 3/8"	38 9/16"	23 7/16"	9 7/8"	9 1/16"	8"	3"	3 11/16"
			70 mm	131 mm	230 mm	34 mm	980 mm	595 mm	251 mm	230 mm	200 mm	78 mm	93 mm
3	7321.21 Long	2 3/4"	5 1/8"	9"	1 3/8"	47 1/4"	32 1/8"	18 9/16"	17 11/16"	8"	3"	12 5/16"	
		70 mm	131 mm	230 mm	34 mm	1200 mm	815 mm	471 mm	450 mm	200 mm	78 mm	313 mm	
4	7322.20 Short	3 7/8"	7 5/16"	15 5/16"	2"	40 3/4"	25"	12 15/16"	11 13/16"	9 7/8"	3 5/8"	4 15/16"	
		99 mm	185 mm	388 mm	51 mm	1034 mm	635 mm	329 mm	300 mm	250 mm	97 mm	125 mm	
5	7322.21 Long	3 7/8"	7 5/16"	15 5/16"	2"	52 9/16"	36 13/16"	24 3/4"	23 5/8"	9 7/8"	3 5/8"	16 3/4"	
		99 mm	185 mm	388 mm	51 mm	1335 mm	935 mm	629 mm	600 mm	250 mm	97 mm	425 mm	
6	7323.20 Short	5 1/8"	9 7/16"	24"	2 1/8"	42 15/16"	27"	16 1/16"	14 5/8"	11 3/4"	4 3/4"	6 1/2"	
		130 mm	240 mm	610 mm	53 mm	1091 mm	686 mm	408 mm	370 mm	298 mm	121 mm	165 mm	
7	7323.21 Long	5 1/8"	9 7/16"	24"	2 1/8"	57 1/2"	41 9/16"	30 5/8"	29 3/16"	11 3/4"	4 3/4"	21 1/16"	
		130 mm	240 mm	610 mm	53 mm	1461 mm	1056 mm	778 mm	740 mm	298 mm	121 mm	535 mm	

‡ Measure to center of eye swage. Swivel height may vary according to swage eye shaft variations.

†† E Max and Min are dependent on foil position at adjuster tube.

MKIV Long Link Plates

*Note: If a long link plate is used, add the following dimensions to feeder (E), shackle (F), pivot point (G) and drum height (J) (based on whether plate is used full-length or shortened to one of five hole positions). Do not add to halyard swivel or top terminal dimensions.		
Unit 1	1/2" (12.7 mm) Clevis pin	Add 13 ¹ / ₄ " - 6 ⁵ / ₈ " (337 - 168 mm)
	5/8" (15.9 mm) Clevis pin	Add 11 ¹ / ₄ " - 4 ³ / ₈ " (286 - 111 mm)
Unit 2	5/8" (15.9 mm) Clevis pin	Add 16 ¹ / ₈ " - 8 ³ / ₄ " (410 - 210 mm)
	3/4" (19.1 mm) Clevis pin	Add 13 ⁹ / ₁₆ " - 5 ¹¹ / ₁₆ " (344 - 144 mm)
Unit 3	3/4" (19.1 mm) Clevis pin	Add 19 ⁹ / ₁₆ " - 10 ¹¹ / ₁₆ " (497 - 271 mm)
	7/8" (22.2 mm) Clevis pin	Add 19 ⁷ / ₈ " - 11" (505 - 279 mm)



Foil Dimensions

System	Unit	K		L		Foil length		Luff tape
		in	mm	in	mm	ft	m	
MKIV	0	7/8	23	1 ¹ / ₃₂	26	7	2.13	#6 9/32" (5 mm)
	1	1	25	1 ¹ / ₈	29	7	2.13	#6 9/32" (5 mm)
	2	1 ¹ / ₄	32	1 ³ / ₈	36	7	2.13	#6 9/32" (5 mm)
	3	1 ¹ / ₂	38	1 ¹¹ / ₁₆	43	7	2.13	#6 9/32" (5 mm)
	4	1 ³ / ₄	44	1 ²⁷ / ₃₂	47	7	2.13	#6 9/32" (5 mm)
ESP	0	1 ¹ / ₄	31	—	—	6 ¹ / ₂ *	2	#6 9/32" (5 mm)
	1	1 ⁹ / ₁₆	40	—	—	6 ¹ / ₂ *	2	#6 9/32" (5 mm)
	2	2 ¹ / ₈	53.5	—	—	6 ¹ / ₂ *	2	#6 9/32" (5 mm)
	3	2 ³ / ₄	69	—	—	6 ¹ / ₂ *	2	#6 9/32" (5 mm)

*ESP foils are 2 m (6' 6³/₄") long

Toggle & Rigging Options

Use these rigger-supplied options to fit Harken® toggles and leg kits shown below. Harken Toggle and leg kit assemblies sold separately.

Model	Toggle Part No.	Description	Clevis Pin Ø		Fits Unit	Furler Part No.
			in	mm		
MKIV	7311.20 1/2	Jaw/Jaw	1/2	12.7	1	7411.10
	7311.21 1/2	Long link plate w/ toggle	1/2	12.7		
	7311.21 5/8	Long link plate w/ toggle	5/8	15.9		
	7312.20 5/8	Jaw/Jaw	5/8	15.9	2	7412.10
	7312.21 5/8	Long link plate w/ toggle	5/8	15.9		
	7312.21 3/4	Long link plate w/ toggle	3/4	19.1		
	7413.20 3/4	Jaw/Jaw w/ short link plate	3/4	19.1	3	7413.10
	7413.20 7/8	Jaw/Jaw w/ short link plate	7/8	22.2		
	7313.21 3/4	Long link plate w/ toggle	3/4	19.1		
	7313.21 7/8	Long link plate w/ toggle	7/8	22.2	4	7414.10
	7414.20 7/8	Jaw/Jaw w/ short link plate	7/8	22.2		
	7414.20 1	Jaw/Jaw w/ short link plate	1	25.4		
	7414.20 1 1/8	Jaw/Jaw w/ short link plate	1 1/8	28.57		

MKIV	7410.20 3/8	Eye/Jaw (reversible)	3/8	9.5	0	7410.10
	7410.20 7/16	Eye/Jaw (reversible)	7/16	11.1		
	7411.20 1/2	Eye/Jaw (reversible)	1/2	12.7	1	7411.10
	7412.20 5/8	Eye/Jaw (reversible)	5/8	15.9	2	7412.10
	7311.20 5/8	Stud/Jaw*	5/8	15.9	1	7411.10
	7312.20 3/4	Stud/Jaw**	3/4	19.1	2	7412.10

*Thread Ø - 3/8 - 18 LH **Thread Ø - 3/4 - 16 LH

Toggle flips for alternate chainplate position



Boats with larger clevis pins use special Harken lower stud fitting.

Rigger Supplied



Harken

Long Link Plate w/Toggle



Jaw/Jaw Toggle Assembly

Eye/Jaw Toggle Assembly



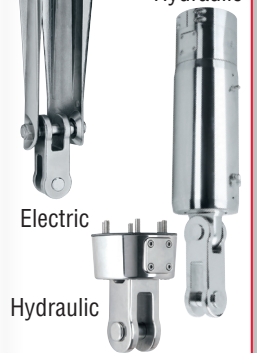
Stud/Jaw Toggle Assembly



MKIV	ELECTRIC	7312.22 5/8	Jaw/Jaw w/ link plate	5/8	15.9	2E	7312.13 12V/24V
		7413.22 3/4	Jaw/Jaw w/ link plate	3/4	19.1		
		7413.22 3/4	Jaw/Jaw w/ link plate	3/4	19.1	3E	7413.13 12V/24V
		7413.22 7/8	Jaw/Jaw w/ link plate	7/8	22.2		
MKIV	HYDRAULIC	741X.25 X/X	Hydraulic Furling Toggles	3/4 - 27/16	19.9 - 61.9	3H - 8H	741X.15
		741X.26 X/X	Furling Toggles and Cylinders	3/4 - 27/16	19.9 - 61.9		



Hydraulic



Electric

Hydraulic

ESP	7320.20 5/16	Short Leg Kit*	5/16	8	0	7320.10
	7320.20 3/8	Short Leg Kit*	3/8	9.5		
	7320.21 5/16	Long Leg Kit	5/16	8		
	7320.21 3/8	Long Leg Kit	3/8	9.5		
	7321.20 7/16	Short Leg Kit*	7/16	11	1	7321.10
	7321.20 1/2	Short Leg Kit*	1/2	12.7		
	7321.21 7/16	Long Leg Kit	7/16	11		
	7321.21 1/2	Long Leg Kit	1/2	12.7		
	7322.20 5/8	Short Leg Kit*	5/8	15.9	2	7322.10
	7322.20 3/4	Short Leg Kit*	3/4	19.1		
	7322.21 5/8	Long Leg Kit	5/8	15.9		
	7322.21 3/4	Long Leg Kit	3/4	19.1		
	7323.20 7/8	Short Leg Kit*	7/8	22.2	3	7323.10
	7323.20 1	Short Leg Kit*	1	25.4		
	7323.21 7/8	Long Leg Kit	7/8	22.2		
	7323.21 1	Long Leg Kit	1	25.4		

*Marine eye only. Does not fit turnbuckle



Long Leg Kit

Short Leg Kit*