

REFLEX FURLING

The Harken Reflex furling system is a game changer! The previous generation of free-flying sail furlers often resulted in partial or uneven furling. Patent-pending Harken Reflex furlers provide sailors confidence that their free-flying spinnakers, gennakers, and code sails will furl with speed and control. The result? Sailors use downwind sails more often—even when sailing short-handed. The compact drive unit is easier to handle than other designs. Pull the furling line and the drive unit reacts reflexively to rotate the torsion cable, immediately transferring torque to the head swivel without unwanted corkscrewing delaying the response. The head swivel reacts instantly, spinning the sail smoothly and completely from top to bottom for an even roll-up and super-tight wrap. The furled spinnaker lowers easily to the deck, ready for the next hoist. Reflex furling comes in two sizes: Unit 1 is rated at 1.5T MWL for boats to 11 m (36'); Unit 2 is rated at 2.5T MWL for boats up to 14 m (45').

Complete even roll-up, tight wrap

- Low-friction ball bearing tack swivel allows the upper part of the sail to furl first.

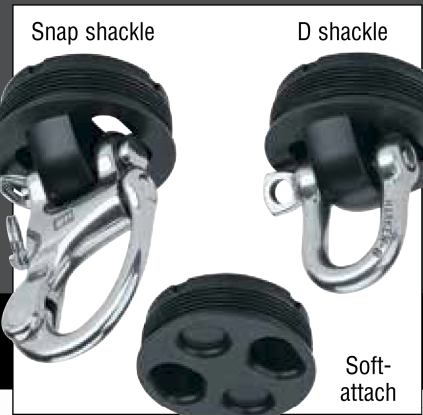
Strong, lightweight

- Large diameter hardcoat-anodized 6061-T6 aluminum drive sheave.
- Torlon® ball bearings reduce friction, simplify maintenance.

Holds line securely

- Flexible polycarbonate alloy cowling allows rope to be easily fed into drive sheave without tools; keeps rope captive.
- Offset holes in drive sheave grip rope securely when furling.
- Stripper and feeder work together to prevent furling line from jamming.





Easily change furlled spinnakers

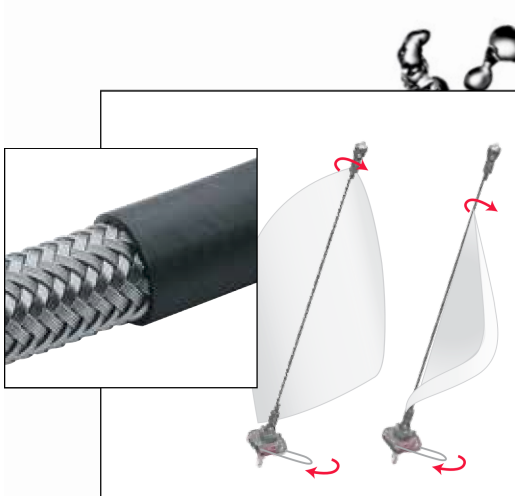
- Quick-release modular T-fitting allows single drive unit to handle multiple sails.
- Each sail has its own torsion cable. Head and tack swivels are permanently fitted to each sail.
- Rolled sail easily disconnects with the pull of one spring-loaded pin; new furlled sail slides and locks into T-slot.

Lightweight, low-profile head swivel

- Integral thimble/terminal for torsion cable saves weight; no fork, eye, or pin connections.
- Compact design reduces weight aloft, maximizes luff length.
- Padded cover prevents damage to spars.

Choice of lower drive unit attachments to bow fitting or sprit

- Snap shackle (included) for quick connection.
- D shackle for more permanent attachment.
- Loop soft-attach/2:1 purchase to control luff tension.



Immediate, smooth, controlled furling

- Reflex cable is more torsionally resistant to corkscrewing than the current breed of textile cable.
- Braided stainless steel wire filaments over braided polyester core transmit torque to head swivel through both tension and compression for faster furling (textile cable transmits through tension only).
- Smooth polymer cable jacket protects sails against abrasion.

Lead blocks keep sidedecks clear

- Spliced continuous line installed without tools.
- Line led outside of stanchions.
- Fit 25 mm (1") stanchions.

Code Zero Sails

- The quick-release modular T-fitting allows the bottom unit to handle code zero as well as asymmetric sails.
- Select the fixed tack terminal option when the torsion cable is inside the luff. A 2:1 soft attach is recommended for increased purchase and luff tension.

DO NOT use Harken equipment for human suspension unless product is specifically certified and labeled for such use. Torlon is a registered trademark of Solvay Advanced Polymers, L.L.C.

Ordering Asymmetric Reflex Furling

Use for asymmetric free-flying spinnakers, cruising spinnakers, and gennakers that have a loose positive luff that is longer than the leech.

Boat Requirements

1. Spinnaker halyard
2. Attachment bail or adjustable tack fitting on a bowsprit or bow extension that allows the furler to clear the forestay and bow pulpit.

1. Determine System Size

Refer to "Typical Boat Length" and "Maximum Sail Area" on unit pages to select the correct size. Note: if you plan to use the system for code zero sails, the loads will be higher so the maximum boat length and sail area are smaller.

2. System Components

The Reflex furling system for asymmetric spinnakers includes all components necessary for one asymmetric spinnaker: one drive unit with snap shackle attachment, tack swivel, head swivel, torsion cable, set of cable clamps.

For each additional sail, order these components separately so you can easily switch furled sails using the quick-release T-slot: one tack swivel, head swivel, Reflex torsion cable, and set of cable clamps.

3. Determine Reflex torsion Cable Length

Each system includes a length of torsion cable. To purchase the correct system including the right length of cable, determine your Full Hoist Dimension (FH). To do so, measure the distance between the sail attachment points at the top of the rig and the bow fitting or fully-extended bowsprit. Make sure the kit you select includes more cable than your FH measurement.

4. Attachment to Boat

The standard Reflex furling system for asymmetric spinnakers includes a threaded snap shackle adapter. To change to D shackle or soft-attach 2:1 adjuster see chart at right.

5. Ordering Furling Line

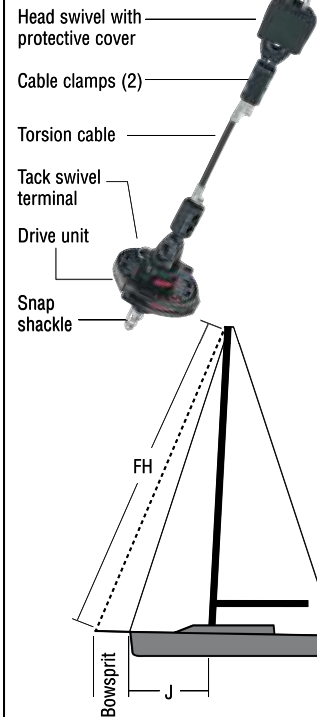
The Reflex furling system requires continuous furling line. Talk to your rigger about furling line construction using a structural cover over a nonstructural core. Note: have the rigger capture the aft block in the loop before splicing. The furling line loop can load into stanchion leads and drive unit after it is spliced.

Refer to chart below for line size and length. Double the loop length and add enough length for the overlap in the end-for-end splice.

Furling Line

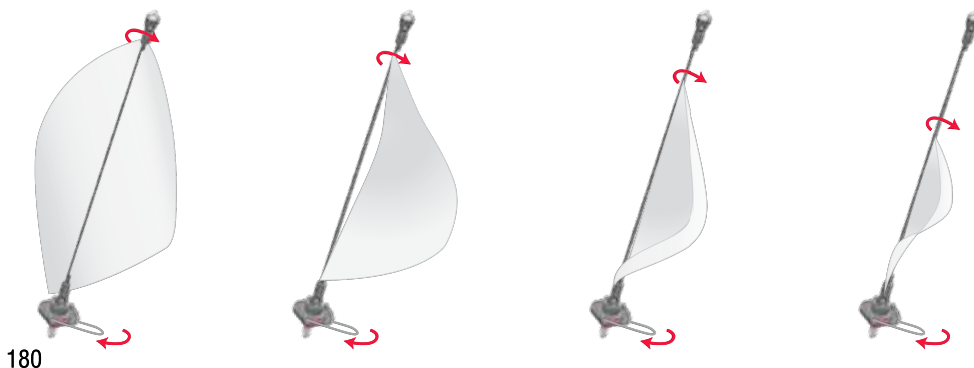
Unit	Line Ø		Length of loop (cruisers)	Length of loop (racers)
	in	mm		
1	1/4	6	Measure from furler to aft lead block in cockpit	Use J dimension plus length of bowsprit minus 60 cm (2')
2	5/16	8		

Standard kit includes



Alternative Attachments to Boat

Unit	High-resistance D shackle	Soft-attach 2:1 adapter
1	7351.21	7351.22
2	7352.21	7352.22



Reflex Furling System Unit 1

For Asymmetric Spinnakers

Typical Boat Length 7.5 - 11 m (25' - 36')

Maximum Sail Area 112 m² (1200 ft²)

Part No.	Description
7351.10.16M	Furling system with 16.15 m (53') cable*
7351.10.18M	Furling system with 18.29 m (60') cable*
7351.10.20M	Furling system with 20.12 m (66') cable*

Optional Parts

7351.20	Snap shackle threaded adapter
7351.21	D-shackle threaded adapter
7351.22	2:1/soft attachment threaded adapter
7351.26	Reflex tack swivel terminal for extra sails
7351.28	Head swivel for extra sails
7371.SPPOOL	Reflex torsion cable (spool) 8 mm x 305 m (5/16" x 1000')
7371	Reflex torsion cable (ordered by the foot) for extra sails
7357	Cable clamp (set of 2) for extra sails
7356	Fairlead kit includes 2 fairleads, fairlead with cleat, and aft block
7355	Extra fairlead

*Includes: drive unit, head swivel, Reflex tack swivel terminal, snap shackle threaded adapter, Reflex torsion cable, and clamps

Reflex Furling System Unit 2

For Asymmetric Spinnakers

Typical Boat Length 10 - 14 m (34' - 45')

Maximum Sail Area 168 m² (1800 ft²)

Part No.	Description
7352.10.20M	Furling system with 20.12 m (66') cable*
7352.10.23M	Furling system with 22.87 m (75') cable*
7352.10.25M	Furling system with 25 m (82') cable*

Optional Parts

7352.20	Snap shackle threaded adapter
7352.21	D-shackle threaded adapter
7352.22	2:1/soft attachment threaded adapter
7352.26	Reflex tack swivel terminal for extra sails
7352.28	Head swivel for extra sails
7372.SPPOOL	Reflex torsion cable (spool) 10 mm x 305 m (3/8" x 1000')
7372	Reflex torsion cable (ordered by the foot) for extra sails
7358	Cable clamp (set of 2) for extra sails
7356	Fairlead kit includes 2 fairleads, fairlead with cleat, and aft block
7355	Extra fairlead

*Includes: drive unit, head swivel, Reflex tack swivel terminal, snap shackle threaded adapter, Reflex torsion cable, and clamps



7351.10
7352.10

Optional Parts



7351.28
7352.28



7351.26
7352.26



7351.20
7352.20



7351.21
7352.21



7351.22
7352.22



7357
7358



7371
7372

7371.SPPOOL
7372.SPPOOL



7356



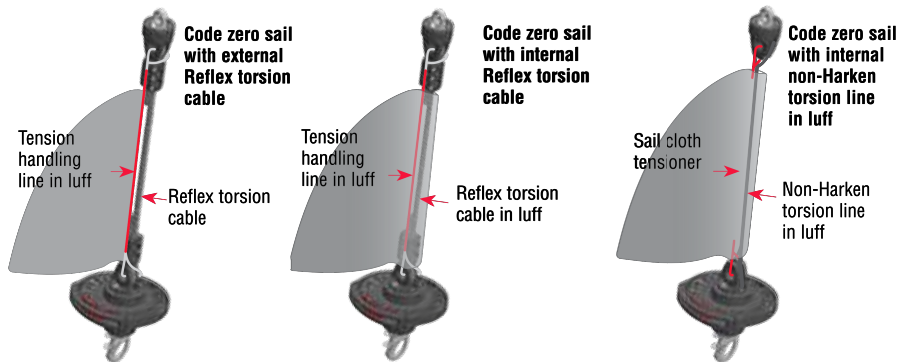
7355

Ordering Code Zero Reflex Furling

Code zero sails are straight luffed and generally flown with significant halyard and luff tension. The Reflex torsion cable is not designed to accept these luff loads. It has, however, proven to transfer the necessary torque to the head swivel for complete furling twice as effectively as any system we have tested. Combine a tension handling line for halyard load with the Reflex torsion cable for the very best code zero furling.

Rigging requirements for code zero sails

When using the Reflex torsion cable with a code zero-type sail, make sure there is an additional tension-handling line as shown.



To furl a code zero sail that has a non-Harken torsion cable sewn into the luff, use either the thimbles or the eyes to secure to the head swivel and fixed tack terminal.



7361.10
7362.10



Includes 2:1 threaded adapter for attachment to bowsprit.

Optional Parts



7351.28
7352.28

7351.27
7352.27



7351.20
7352.20

7358

7351.21
7352.21

Reflex Furling System Unit 1

For Code Zero Sails

Typical Boat Length 6.7 - 10 m (22' - 32')

Maximum Sail Area 60 m² (650 ft²)

Part No.	Description
7361.10	Code zero furling system*
Optional Parts	
7351.20	Snap shackle threaded adapter
7351.21	D-shackle threaded adapter
7351.27	Reflex fixed tack terminal for extra sails
7351.28	Head swivel for extra sails
7371.SP00L**	Reflex torsion cable (spool) 8 mm x 305 m (5/16" x 1000')
7371**	Reflex torsion cable (ordered by the foot)
7358**	Cable clamp (set of 2)

*Includes: drive unit, head swivel, Reflex fixed tack terminal, 2:1 threaded adapter

**Order Reflex torsion cable and clamp set for 7361.10 to improve furling.

Reflex Furling System Unit 2

For Code Zero Sails

Typical Boat Length 9 - 12 m (30' - 40')

Maximum Sail Area 84 m² (900 ft²)

Part No.	Description
7362.10	Code zero furling system*
Optional Parts	
7352.20	Snap shackle threaded adapter
7352.21	D-shackle threaded adapter
7352.27	Reflex fixed tack terminal for extra sails
7352.28	Head swivel for extra sails
7372.SP00L**	Reflex torsion cable (spool) 10 mm x 305 m (3/8" x 1000')
7372**	Reflex torsion cable (ordered by the foot)
7358**	Cable clamp (set of 2)

*Includes: drive unit, head swivel, Reflex fixed tack terminal, 2:1 threaded adapter

**Order Reflex torsion cable and clamp set for 7362.10 to improve furling.



7371
7372

7371.SP00L
7372.SP00L