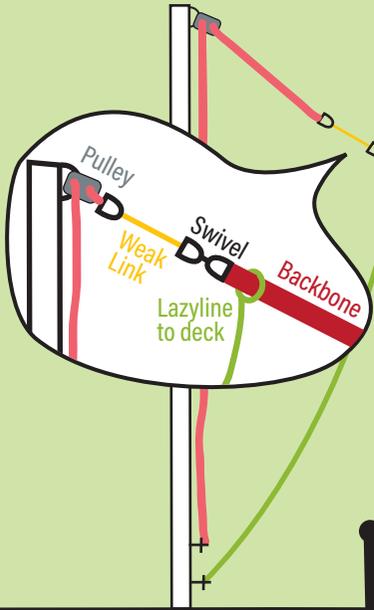


## Vessel Attachment

Attached to the vessel at least 6m above the surface of the sea in calm conditions, and as close to the stern as practically possible.

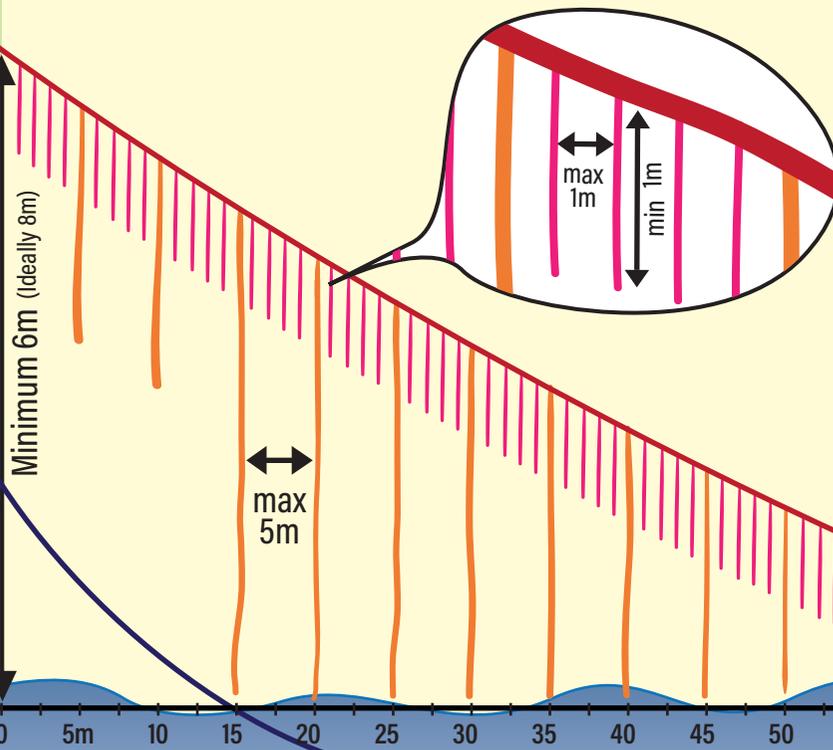


## Streamer Aerial Section

The aerial extent section needs to be in the air (in calm conditions) for 75m, (not including the drag section). Streamers must be brightly coloured. Within the first 15m streamers may be modified to minimise the risk of entanglement. Streamers must be fitted every 1m along the aerial extent.

Long streamers: Must reach the sea surface and be fitted at a max of 5m spacings.

Short Streamers: Must be spaced 1m apart and be a min of 1m long.



This section is often in/out of water. All streamers in this section should be 1m long, and of a material that is less likely to tangle with your gear (ie. smaller diameter, hard material).

## Drag Section

There needs to be enough drag to maintain 75m of aerial extent.

Braided rope or mono is best (less likely to tangle with setting gear rather than a float or a cone etc).

The drag material or 'object' needs to be designed and constructed to reduce entanglement with setting line i.e. streamline and seamless construction.

The join between the backbone and drag rope is a "catch point", ensure its streamlined, whip/tuck and wrap this join.

Drag "rope" section

Setting

Long Line

- Recommended Materials:
- Main/Long Streamers: Heavier Rubber or Plastic Tubing
  - Secondary/Short Streamers: Lighter weight tubing/tape etc

# ***Tori Line Design and Build – Guiding Principles (vessels less than 35m)***

***Use the tori line design guide (over page) as a starting point to construct something that works for your vessel design and fishing practices.***

A well-designed and deployed tori line reduces risk of seabird captures but only if it is used in conjunction with an effective sink rate.

Tori lines (streamer lines) must be used when setting surface long lines at any time and must achieve a minimum of 75m aerial extent.

To maximise performance, the tori line needs to be:

- Well-constructed, light weight, easy to deploy and retrieve. It should leave the vessel as high as possible and have plenty of drag. You will need spare parts and should have a spare line set up and ready to deploy if a major tangle or breakage occurs.
- The key to reducing tangling issues - is to keep as much as possible of the streamer section in the air above your setting hook line. The drag section construction and materials need to be streamlined to reduce the risk of tangling. To do this, make sure the joins are whipped and taped to create a smooth surface so it is less likely to catch your gear.

## **Three Main Sections of a Tori line:**

### **Vessel Attachment – This height is crucial in order to increase aerial extent**

- Height: You are required to suspend the tori line from a point on the vessel at least 6m above the surface and as close to the stern as possible. Ideally it should leave the stern at around 8m+ above the waterline. If necessary, fit a pole to get extra height (for every 1m extra height above 6m you'll achieve about 8m more aerial extent).
- Weak link/ breakaway system: fit a weak link at the attachment point so that the tori line will break off at your weak link, or before the tori line 'spools off' your gear. Use a lazy line back to the deck so that you can regain control of the vessel end of the tori line if/when it breaks.
- If the tori line breaks or is lost, you need to redeploy another before setting any further gear.

### **Aerial Streamer section – Suitable materials make a difference**

- Backbone: This is the main part of the tori line which supports the streamers, the aerial extent 'backbone section' needs to be 75m from the stern and you need to maintain a minimum 75m in the air. Choose a material that is light-weight, durable and braided as it twists less.
- Streamer materials: Must be brightly coloured, suitable/durable, use rigid, stiff, strong materials such as rubber tubing, tape, or cord attached in a way that prevents streamers from wrapping around the backbone and tangling with each other.
- Streamer placement: Must have streamers fitted every 1m along the aerial extent section, however within the first 15m the streamers may be modified to reduce tangling with the setting hooks.
- Long streamers: Often are heavier 5/6mm rubber tubing, placed at a maximum of 5m intervals, need to reach the water surface (in calm conditions) along the 75m aerial extent.
- Short streamers: Lighter weight 2-3mm plastic tubing, or strips of plastic-tape etc, placed at 1m intervals must be a minimum of 1m in length.
- Do a test deployment: Trim each longer streamer to suit your deployment height. In calm conditions the streamers must reach down close to the surface, but ensure most of the time they are in the air and not the water (streamers in water are more likely to tangle with setting hook line, reduce aerial extent and can even tangle birds).

### **Drag Section - Drag section is crucial in order to increase aerial extent**

- Drag object: A length of rope or mono (or an object like a cone or float, or a combination of both) fitted to the end of the aerial streamer section and needs to provide enough drag to maintain the streamer section to the required 75m aerial extent.
- The connection between aerial section and drag section needs to be as seamless as possible to prevent tangling with the setting gear (braided rope or mono material twists less).
- *Sea-trials have shown a tori line deployed from a height of 6m (at 6 knots) requires about 90m of 9mm braided (500L) drag rope to achieve 75m aerial extent. When deployed from a height of 8m, about 70m of 9mm braided (500L) drag-rope was required.*

***For more advice: Contact your local SLL Liaison Officer, listed in your Protected Species Risk Management Plan***

#### **Disclaimer:**

*This document has been produced to serve as a guide to the MPI Fisheries Regulations for Seabird Mitigation Measures Surface Longlines, for use by the fishing industry. This not intended to be nor should it be used, as a substitute to any statutory, regulatory, and/or non-regulatory requirements for Surface Longline fishing. Before acting in reliance, either wholly or partially, on any information contained in this document 'guide/design', readers should seek advice as to how current legislation, rules and regulations may affect their interests. It is the duty of the operator to know and understand the current Regulations that apply.*