



What is FliteLine® ?

An inconspicuous post and wire bird deterrent that can be installed on all types of surfaces to deter pigeons & seagulls.

It uses spring tensioned, stainless steel Flite Cables run between stainless steel Flite Posts . Installed at different heights, these thin cables makes the surface less inviting to pigeons & seagulls.

This brochure shows the FliteLine components and guides you through estimating, planning and installation steps.

Nixalite's FliteLine can be installed on nearly any surface, is long lasting, adaptable and discreet. By any measure, it is the best post and wire pigeon deterrent available.

- Thin all stainless posts
- Thin stainless steel cable
- Nearly invisible deterrent
- 2 cables per post design
- Optional stainless bases
- Simple loop connections
- Easy crimp ferrules
- Quick installation
- 100% UV proof deterrent
- For pigeons & seagulls

Read the instructions before beginning your FliteLine® installation!

We provide you with the best bird & animal control products in the world. To get the best from the best, you must install them properly.

If you have questions about FliteLine, please contact us. Our office hours are 8:00 a.m. to 4:30 p.m. Central Time. Visit our website 24/7.

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When & Where to use FliteLine®



Use FliteLine as a deterrent for **pigeons & seagulls** on surfaces where these birds are **few in number**. If small birds are present and/or there are a lot of birds, then install our bird barrier system; the **Premium Nixalite Bird Barrier Spikes**.

FliteLine can be installed on nearly any surface. It is safe for surfaces where occasional human contact is to be expected. FliteLine is very discreet and can be used where low visibility is important.

The FliteLine® Components

FliteLine Flite Posts:

Nail Point: 4.5" & 6" long. For wood and masonry surfaces. Use anchors for masonry fastening.

Flite Base: 3.5" & 5" long. For all types of surfaces. Screws, nails and adhesive sold separately.

FliteLine Hardware:

Flite Cable: 100', 300' & 600' spools. 1/32" stainless, nylon jacket cable.

Flite Springs: stainless steel, 1/4" x 1/2" extension springs.

Flite Ferrules: plated copper.

Crimp Tool: crimps ferrules.



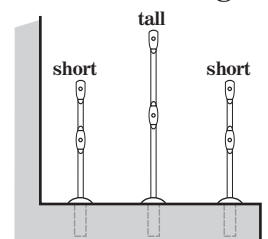
All FliteLine components are made of either stainless steel or weather resistant materials. Many more FliteLine accessories are available. Call Nixalite for more information on the available options.

The Flite Plan: Step-by-step planning guide for your FliteLine installation.

1. Accurately measure the surface **depth** (front-to-back) and **length** (end-to-end).
2. Use the **FliteTable** to find the number of rows required for your surface depth.
3. Refer to the **FliteLine Spacing Guide** for spacing between rows and posts (next page.)
4. Select the Flite Posts and hardware that best suits your application.
5. Clean the surface thoroughly. It must be clean, dry and odor free at the time of installation.

Flite Table	
Surface Depth	Rows Required
0" - 2"	1 row
2" - 5"	2 rows
5" - 8"	3 rows
8" - 11"	4 rows
11" - 14"	5 rows
14" - 17"	6 rows
17" - 20"	7 rows
20" - 23"	8 rows
23" - 26"	9 rows
26" - 29"	10 rows

Alternate Row Heights



Alternate post heights on multiple row surfaces. Use short posts on outside edges with both upper and lower wires installed.

For single row surfaces, use tall posts with both upper and lower wires installed.

FliteLine® Spacing Guides

FliteLine® Row Spacing: Row-to-row spacing guidelines

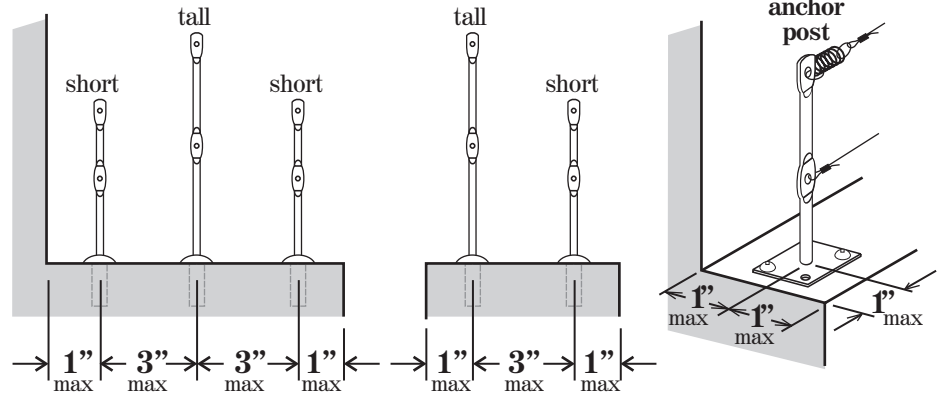
Once you know how many rows of FliteLine® are needed to protect your surface, you need to know how to space them correctly on the surface. The **FliteLine® Row Spacing** rules provide the remarkably simple spacing requirements for FliteLine rows. Do not exceed the maximum row-to-row spacing limits.

FliteLine® Row Spacing

Follow these 3 rules of row spacing. Refer to the illustrations for examples of the spacing rules.

- 1" maximum space between a row of FliteLine and any outside edge or wall.
- 3" maximum space between rows of FliteLine.
- 1" maximum space from an Anchor Post to an open end of a surface.

FliteLine® Row Spacing Examples



FliteLine® Post Spacing: Post-to-post spacing guidelines

Once you know where the rows of FliteLine® will be installed on the surface, you will need to know how often to install the Flite Posts along the row. The **FliteLine® Post Spacing** rules provide simple post-to-post spacing requirements. Do not exceed the maximum spacing limits.

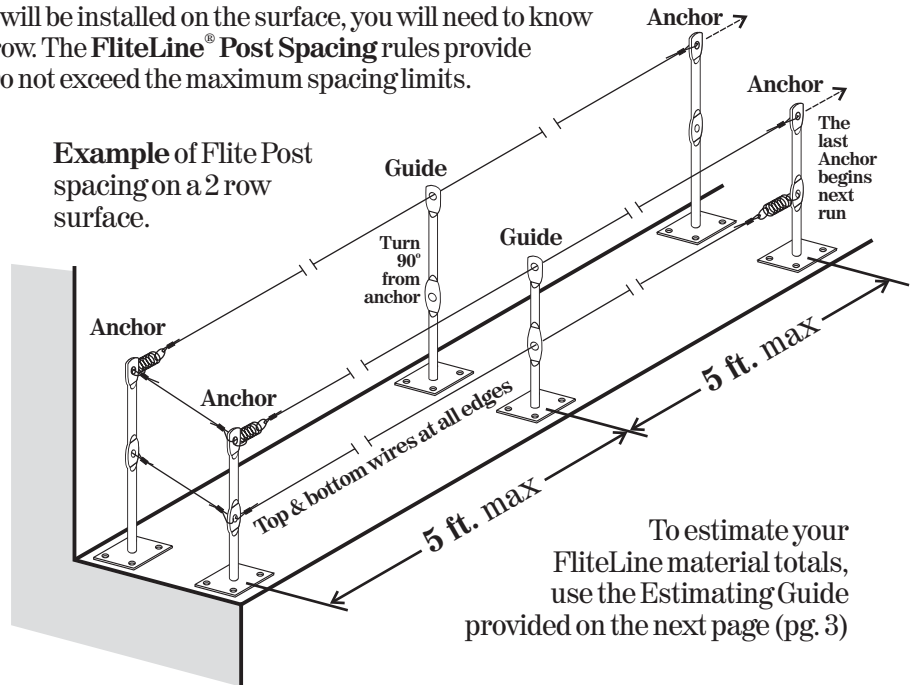
FliteLine® Post Spacing

Flite Posts are installed along the row of FliteLine to anchor and support the Flite Cable. This cable is installed in sections up to **10 feet long**.

If the row is **less than 5 feet long**, an **Anchor** post is required at each end of the row. If the row is **more than 5 feet long**, a **Guide** post is required to support the wire between the Anchor posts.

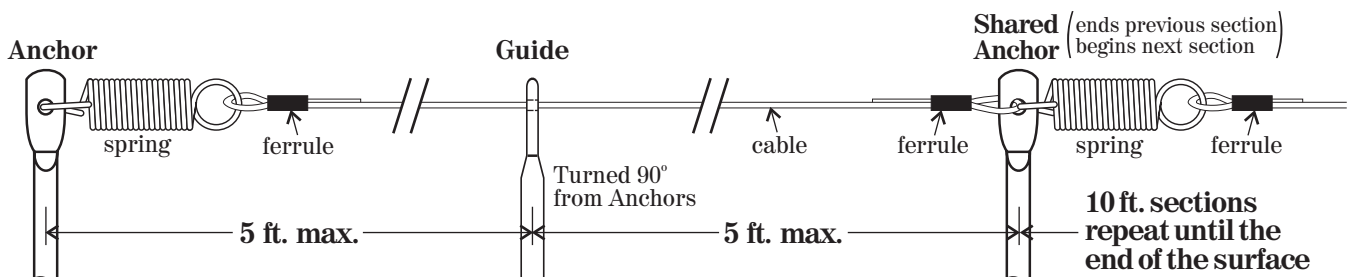
The maximum distance between Anchor posts is **10 feet**. The maximum distance between Guide and Anchor posts is **5 feet**. For rows longer than 10 feet, install additional sections of cable.

Example of Flite Post spacing on a 2 row surface.



To estimate your FliteLine material totals, use the Estimating Guide provided on the next page (pg. 3)

FliteLine® Posts: Typical cable and post assembly example



Need a FliteLine Estimate? Call us at 800-624-1189 or fax your accurate dimensions to 800-624-1196

FliteLine[®] Estimating Guide

Estimating for FliteLine[®]: Simple formulas to find BASIC FliteLine material totals.

Posts = Row Length ÷ 5. Round up to a whole number. Multiply by number of rows needed.

Springs = Row Length ÷ 10. Round up to a whole number. Multiply by number of rows needed.

Ferrules = Row Length ÷ 5. Round up to a whole number. Multiply by number of rows needed.

Cable = Row Length X Rows Needed.

For all outside rows: Double post, spring, ferrule and cable totals to allow for top and bottom wire installation.

The formulas shown will provide you with a **BASIC** idea of how much material will be needed. **Tip:** allow for extra springs, ferrules and cable in your material estimate. If you have any questions or would like us to provide your material estimate, contact Nixalite. Please have complete and accurate dimensions ready when you call.

Estimating Example:

A straight surface that measures 6 inches deep and 38 feet long. Using the formulas above and the Flite Table information on page 1, you should get the following totals.

Posts = 38 feet long ÷ 5 = 7.6 = 8 posts per row X 3 rows = 24 posts total.

Row heights: 3 rows (short-tall-short), 8 posts per row = 16 short, 8 tall.

Springs = 38 feet long ÷ 10 = 3.8 = 4 x 3 rows = 12 springs total*.

Ferrules = 38 feet long ÷ 10 x 2 = 7.6 = 8 x 3 rows = 24 ferrules total*.

Cable = 38 feet long x 3 rows = 114 feet of cable*.

*Always allow for extra springs, ferrules and cable in your material estimate.

Installing FliteLine[®]

Hardware Steps: Installing FliteLine hardware and posts

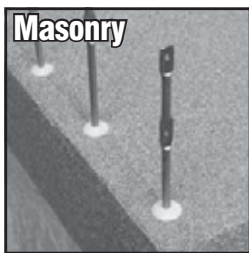
Masonry: drill a 3/16" diameter hole, 1-1/4" deep. Insert anchor and seat the Nail Point post with a hammer. Installed height should be 3.5" for short posts and 5" for tall posts.

Wood: to prevent splitting, drill a small pilot hole, 1" deep. Seat the Nail Point post with hammer. Installed height should be 3.5" for short posts and 5" for tall posts.

Sheet metal: position Flite Base, mark holes, drill small pilot holes and secure with at least 2 sheet metal screws.

Adhesive: Use mechanical fastening whenever possible. If you must use adhesive, always read, understand and follow the surface preparation and application guidelines printed on the adhesive packaging.

Apply adhesive to the surface and to the bottom of the Flite Base. Push together so the adhesive squeezes through the holes of the base. The **adhesive MUST FULLY CURE** before attaching the cables and springs to the posts.



Masonry



Wood

Double check installed post heights for masonry and wood installation surfaces.



Sheet Metal

Secure the Flite Base with at least 2 sheet metal screws. If the surface sheet metal is thin, use more.

First Things First: Clean the surface and gather your tools

1. Clean all surfaces BEFORE installing bird control.

All surfaces must be clean, dry and free of debris BEFORE you install any type of control. WHY? See the sidebar on page 4.

2. Get everything together before you start.

You will need: All of your FliteLine items, hardware and accessories. A straightedge (or chalk snap line), a tape measure, a marker/pencil and a copy of these instructions for reference.

You might need: A drill, 3/16" masonry drill bit (masonry surfaces), a small pilot hole drill bit (sheet metal & wood surfaces) and a dimensioned sketch of your installation (recommended).



1. Thoroughly Clean The Surface!



2. Get everything together

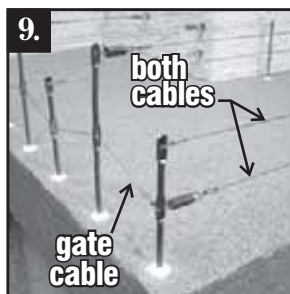
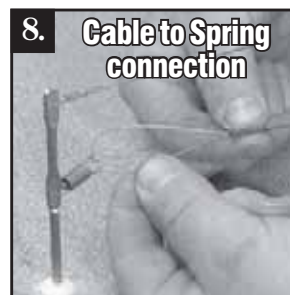
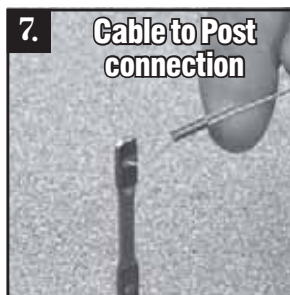
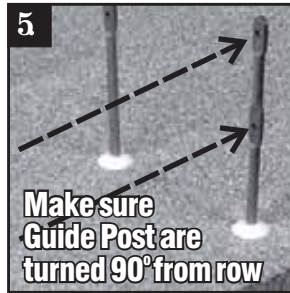
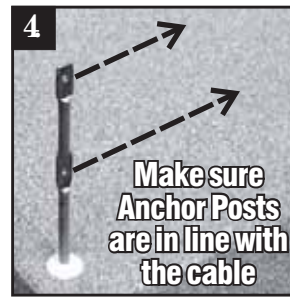
Installing FliteLine steps continued on next page.

Need a FliteLine Estimate? Call us at 800-624-1189 or fax your accurate dimensions to 800-624-1196

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Installing FliteLine: Post layout, post installation and cable connections

3. Mark the locations for all of the anchor and guide Flite Posts. Use the row and post spacing guides on pages 1 and 2.
4. Before installing the posts, make sure the Anchor Posts are in line with the row. This adds even more strength to the system.
5. Before installing, make sure all Guide Posts are 90° from the direction of the row. This eliminates drag on the cable.
6. At each marked location, install the Flite Posts using the steps provided in the **Hardware Steps**. The example images show a masonry surface.
7. **Cable to Post Connection.** Slide a ferrule onto the cable, loop the cable through the post eyelet and back through the ferrule. Push the ferrule to the post while pulling the cable tight. Crimp the ferrule tightly and trim the excess cable.
Thread the cable through any Guide posts (not shown).
8. **Cable to Spring Connection.** Insert a spring through a post eyelet. Slide a ferrule onto the cable, loop the cable through the spring eyelet and back through the ferrule. Push the ferrule to the spring while pulling the tag end of the cable tight. Tension the cable so it is straight but the spring is not extended. Crimp the ferrule tightly and trim excess cable. Stagger spring connections. Do not install 2 springs on one post.
9. **Install upper and lower cables at all Outside Edges. Install Gate Cables at all Open Ends.**
10. Finished installation should have straight evenly spaced rows, with double cable at all outside edges.



Questions? Contact Nixalite.
FliteLine has many more uses than what are shown here. If you have a bird control problem and are not sure which Nixalite bird control system to use, call us. We can recommend the system that best suits your application.

Why clean the surface first?



Protect your health!
Bird droppings can contain hazardous diseases, bacteria and parasites. A thorough cleaning & disinfecting helps protect your health.

Eliminate the Scent Trail.
Birds are drawn to the scent of their own droppings. A thorough cleaning and deodorizing eliminates this scent trail and helps prevent them from returning.

Protect the Property.
Left alone, bird droppings can destroy almost any building material. Wood, stone and steel are all susceptible to the acidic and bacterial ridden mess.

Hand Made Forms



Nixalite can manufacture hand-made mounting bases that fasten the FliteLine to all types of surface shapes and materials. Here are a few examples...

- Pipes, rails, square tube
- I-beams, angle iron
- Roof peaks, gutters
- Solar panels, HVAC units
- Extra-wide ledges
- Marble, granite, limestone
- Sculptures, statues, frieze
- Many applications - call Nixalite for more details

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Printed with Pride in the USA
Form: FlitePlan09

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