

REINFORCED ALUMINUM HANDRAIL

FLAT WHITE FINE TEXTURE | FLAT BLACK FINE TEXTURE

TOOLS & SUPPLIES

- ❑ Reinforced aluminum handrail & matching end caps*
- ❑ Handrail mounting screws (#8 x 3/4" SS structural wood screws)*
- ❑ Handrail splines*
- ❑ Spline screws (#8 x 3/4" SS sheet metal screws —included with splines)
- ❑ Painter's tape
- ❑ Metal file
- ❑ Touch-up paint aerosol (optional)*
- ❑ Drill/impact driver (with 5/32" drill bit*)
- ❑ T20 x 3-1/2" star drive power bit*
- ❑ Socket screwdriver
- ❑ Miter saw & non-ferrous metal cutting blade
- ❑ Tape measure
- ❑ 3/16" Allen wrench*
- ❑ 1/8" Allen wrench*
- ❑ Angle finder (stair runs)
- ❑ Mallet (setting fixed corner splines in place)
- ❑ T-bevel (setting angle of adjustable splines)

* available at www.cablebullet.com



INSTALLATION DEMO

Scan the QR code to watch the handrail installation video.

youtu.be/Ovyhs3psYrk



4 THINGS TO KNOW ABOUT CABLE BULLET HANDRAIL

1 IT'S DESIGNED TO BE CUT DOWN FOR CUSTOM LENGTHS

Use a miter saw and non-ferrous metal cutting blade for any custom cut length. Before cutting, wrap handrail in painter's tape to minimize chipping. After cutting, file away any burrs inside the handrail. Before removing the painter's tape, spray your ends with touch-up spray to cover any blemishes.

HOW TO CUT HANDRAIL FOR A 90° CORNER

A Top-Down View of Handrail on Posts



1 | Measure from back of corner post to end of installed handrail section.

2 | Set saw to make a 45° miter cut on a new stick of handrail.

3 | Turn handrail piece (a) upside down and join with other piece (b) to create the 90° corner with a **fixed corner spline** (see section 2). Join straight handrail sections (a & c) using a **fixed straight spline**.

2 SECTIONS ARE JOINED WITH INTERNAL, CONCEALED SPLINES

Piece together longer handrail sections with fixed or adjustable splines. Splines are tapered and will tighten up as they are inserted into the handrail.

HORIZONTAL SPLINES



A FIXED STRAIGHT

Piece together longer, level sections. Does not need to be supported over a post.



B FIXED CORNER

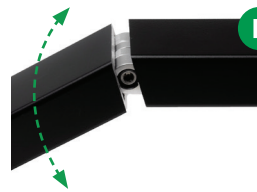
Use for all 90-degree turns. Set in place using a mallet.



C ADJ. HORIZONTAL CORNER

Use for any level, horizontal turns.

VERTICAL SPLINES



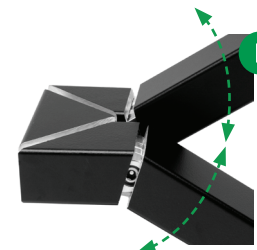
D ADJ. STRAIGHT

Use where a level straight run continues into an angled run, or where a stair handrail levels out.



E ADJ. VERTICAL CORNER*

Use on inside corners around stairs and landings.



F ADJ. 180 DEGREE*

Use for handrail joints with 2 pivot points (e.g. on the inside railing between 2 flights of stairs connected by a landing).

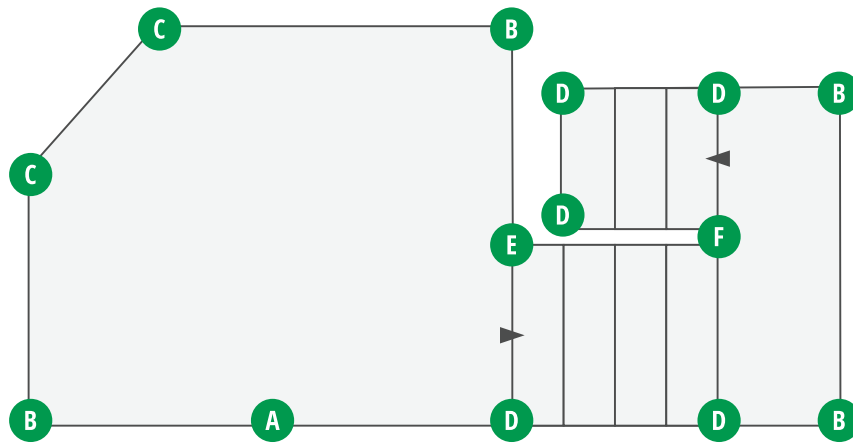
* These splines have lap joints designed to be adjusted & screwed together on-site. Handrail sections are secured to spline components (see section 4) as the spline components are pieced together around every transition.

3

STRAIGHT SECTIONS CAN BE JOINED ANYWHERE - NOT JUST OVER A POST

Fixed straight splines are structural, so the handrail can break anywhere along sections of horizontal railing. Installation is simpler – with less cutting & measuring – since the handrail doesn't have to break over a post.

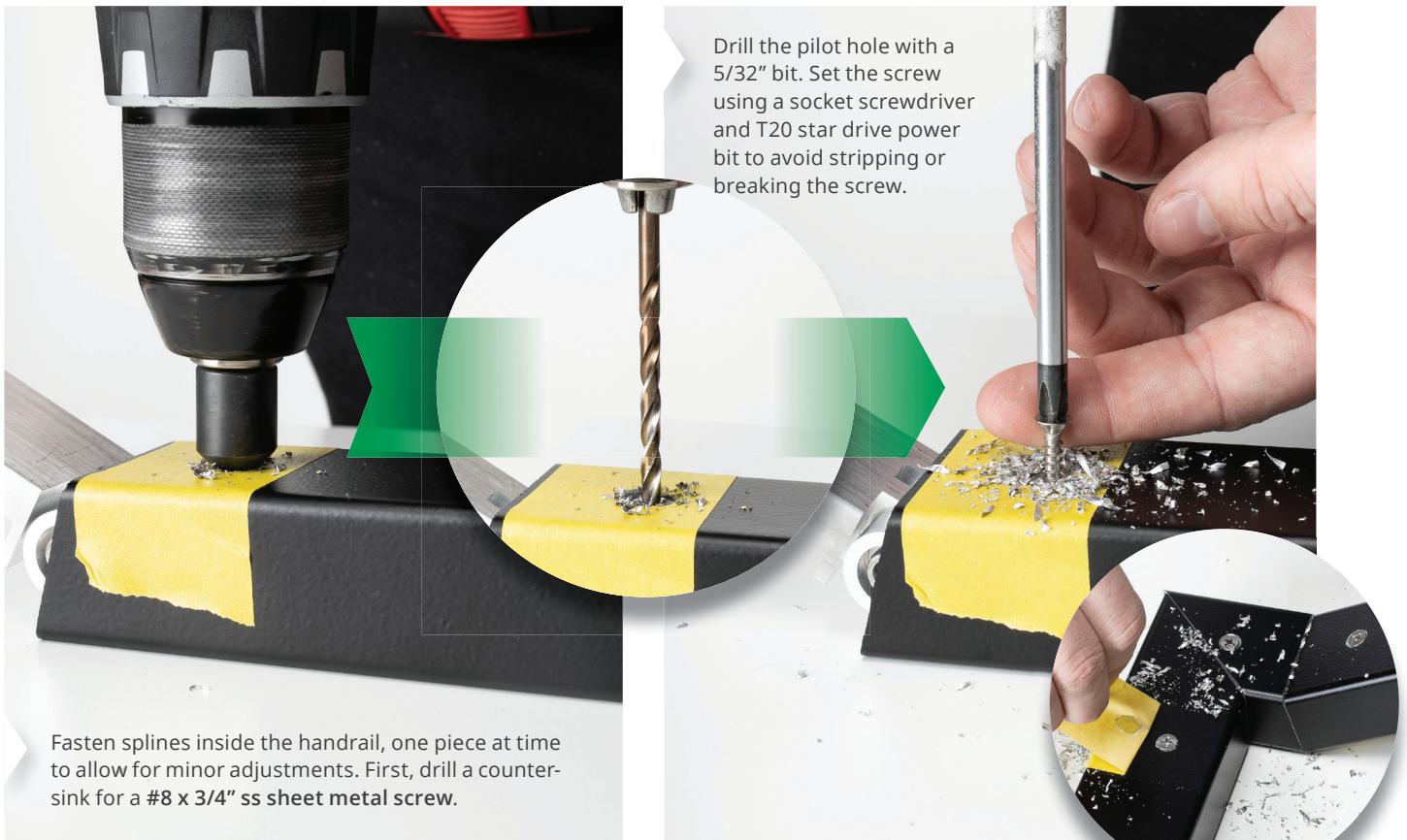
THE BEST METHOD for installing handrail is starting at one end of your project & working around your railing, adding splines at each corner, angle & handrail joint. See [examples of spline locations](#) below.



4

SPLINES ARE SECURED INSIDE HANDRAIL WITH SCREWS

Use spline screws on the underside of your handrail to secure splines inside. At each joint, install 1 screw for every handrail piece.



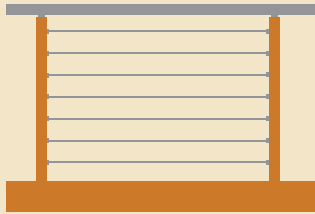
Fasten splines inside the handrail, one piece at time to allow for minor adjustments. First, drill a counter-sink for a #8 x 3/4" ss sheet metal screw.

Drill the pilot hole with a 5/32" bit. Set the screw using a socket screwdriver and T20 star drive power bit to avoid stripping or breaking the screw.

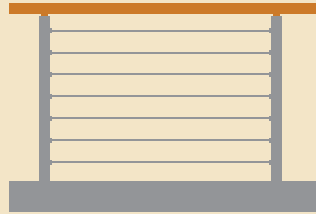
INSTALLATION INSTRUCTIONS



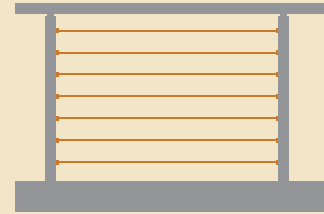
IMPORTANT: Order of Installation



1 | Mount Posts

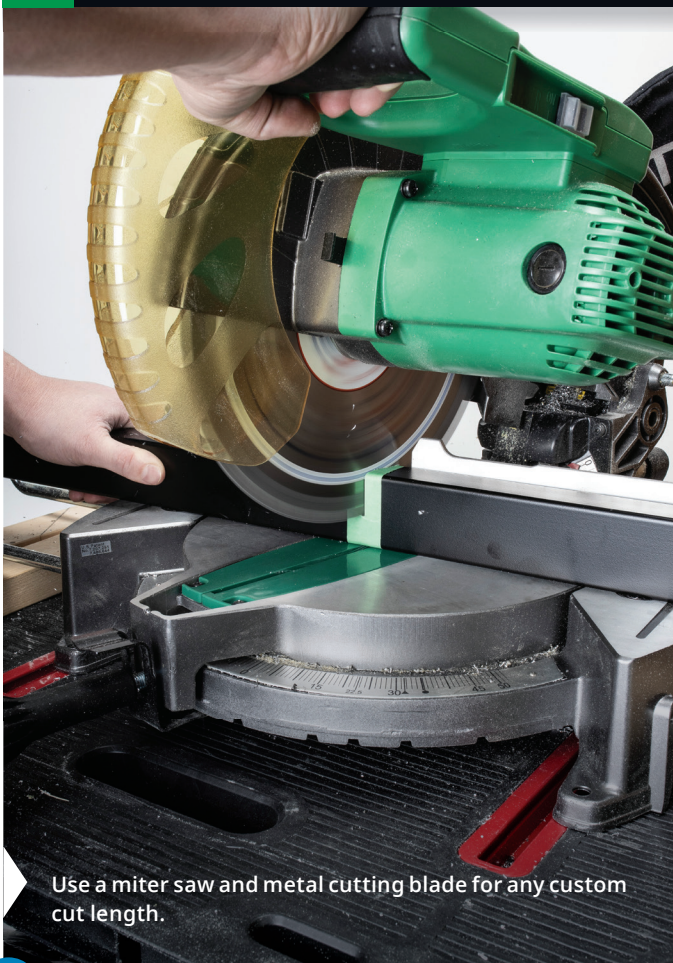


2 | Attach Handrail



3 | Install & Tension Cables

1 CUTTING HANDRAIL PIECES



Use a miter saw and metal cutting blade for any custom cut length.



PRO TIP: Use painter's tape when cutting through powder-coated handrail to minimize chipping.



Before joining your cut sections of handrail, file away any burrs. A clean channel will allow for a cleaner joint.



PRO TIP: Before removing the painter's tape, spray your ends with touch-up spray to cover any blemishes.

2 JOINING LEVEL STRAIGHT RUNS



Piece together longer, level handrail sections using structural fixed straight splines **A**. Splines are tapered and will tighten up as they are inserted into the spline.

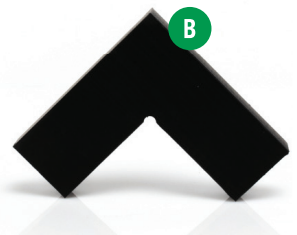
NOTE: Structural fixed splines do not need to be supported over a post!



3 JOINING LEVEL CORNER RUNS



Use Delrin fixed corner splines **B** for all 90-degree turns. Set in place using a mallet. If necessary, use a file on the spline to ease installation.



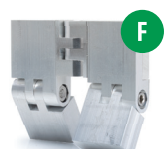
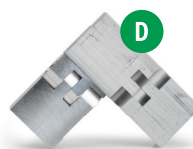
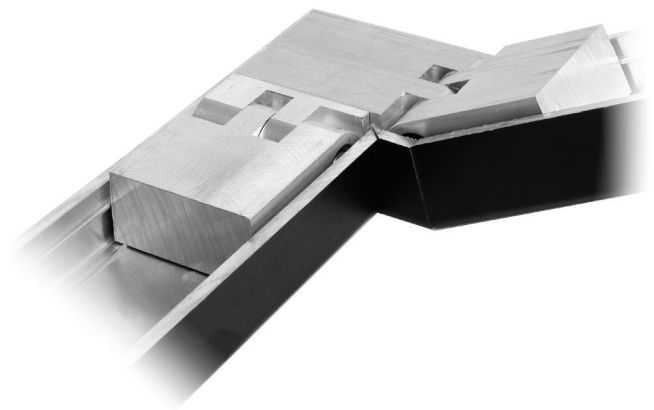
4 ADJUSTABLE SPLINES FOR ANGLED JOINTS



Use adjustable splines **C, D, E, F** at your angled transition joints. Set the angle of your adjustable spline with a T-bevel and lock it in place with a 3/16" Allen key.

HANDRAIL BEVEL CUTS

Use an angle finder to determine the pitch of your stairs and make the appropriate bevel cut for your handrail.



Adjustable straight spline **C**

Adjustable vertical corner spline **D**

Adjustable horizontal corner spline **E**

Adjustable 180-degree spline **F**



Fasten the spline to the handrail, one piece at a time to allow for minor adjustments. First, drill a countersink for a #8 x 3/4" stainless steel flat head sheet metal screw.



Use a 5/32" bit to drill the pilot hole. To avoid stripping or breaking the screw, use a screwdriver to set the screw.



6 MOUNTING HANDRAIL TO MODERN POST TOPS

1 | Loosen the set screw that secures the top collar **G** to the center pin **H**. Attach the adhesive disk (included with your posts) to the top collar.



2 | Place your handrail on top, press down firmly and remove the handrail and top collar together.



3 | Drill 5/32" pilot holes. Use four handrail mounting screws to secure the top collar to the handrail. To avoid stripping or breaking screws, use a socket screwdriver.



4 | Reassemble and lock in place!



For designing handrail around stairs and additional instructions, visit:
www.cablebullet.com/blogs/guides

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