

Cable Infill Utilizing Through-Post Hand Swage Fittings

Revision 1

Introduction



The HandiSwage™ Cable Railing System is based on the simplest cable railing method, utilizing a crimp tool to attach cable to fittings. Components are affordable and easy to install.



The HandiSwage™ System is an easy to use cable railing product utilizing fittings that are an adaption of traditional swage fittings. They can be attached to cable using Atlantis Rail's hand swage tools and allow for through post installation to hide the hardware. This system combines the aesthetic appeal, quality and durability of the HandiSwage™ cable components with the convenience and economy of 1/8" cable. All HandiSwage™ components are made from grade 316L stainless steel for corrosion resistance.

HandiSwage™ Compatibility

- Wood Systems
- Composite Systems
- NOVA Systems
- Spectrum Systems

HANDISWAGE™ EXPLAINED

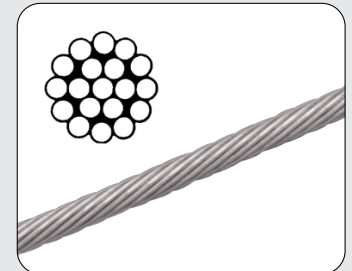


Cable Used

HandiSwage™ Cable Infill utilizes 1/8" cable featuring 1x19 strand construction, made from marine grade 316L stainless steel.

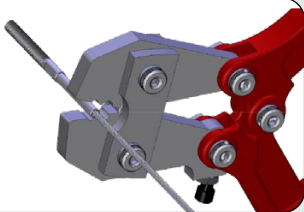
The HandiSwage™ Cable is available in the following:

- (S0701-0003-01) 100 ft. Spool
- (S0701-0003-02) 250 ft. Spool



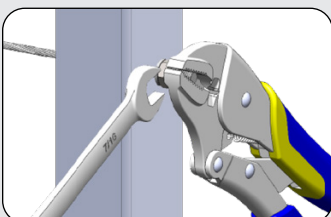
Cutting the Cable

Cable is cut to length in the field using either the RailEasy Cable Cutters (small projects) or the Heavy-Duty 14" Cable Cutters (large projects).



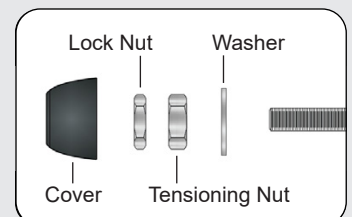
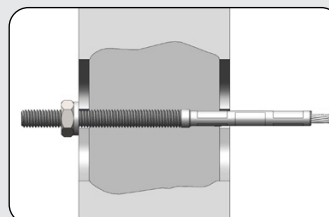
Connecting Cable to Hardware

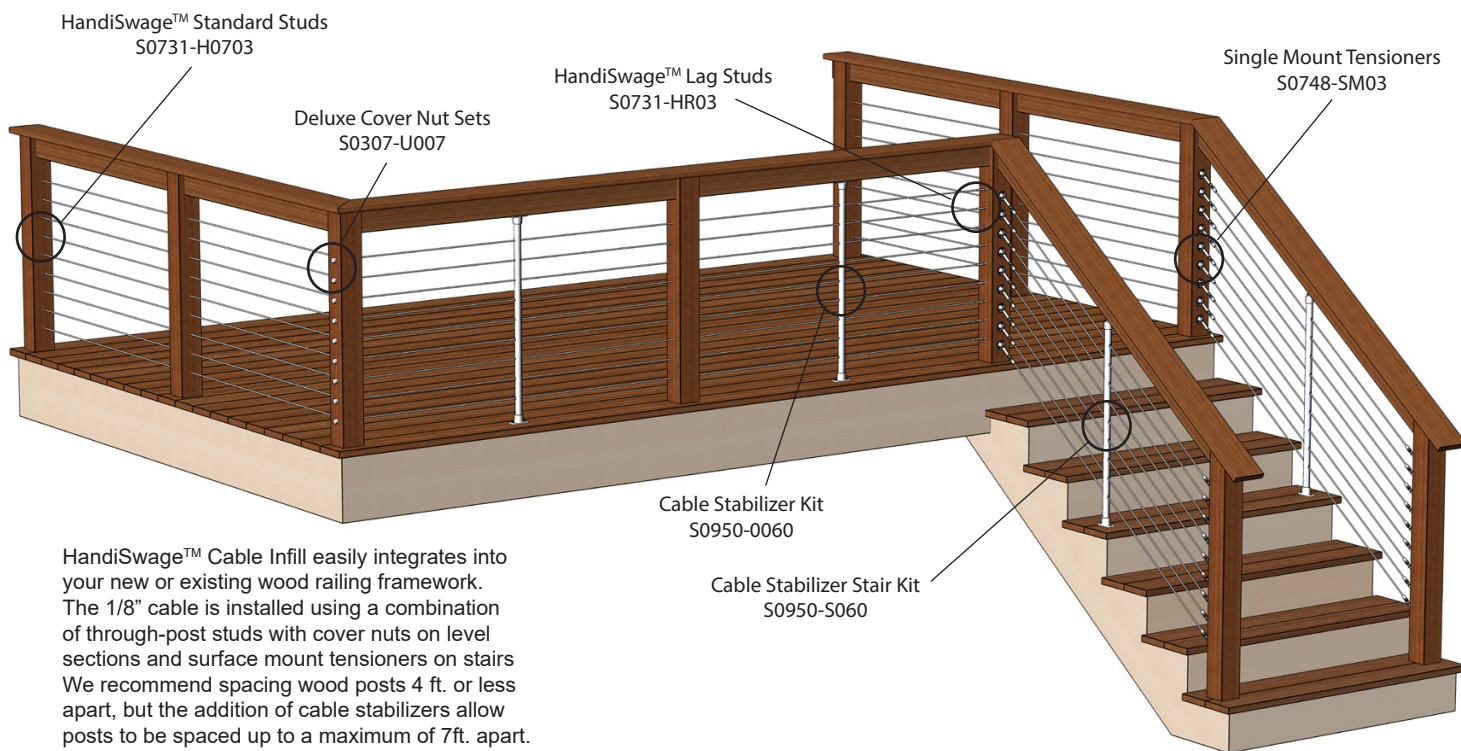
Stainless stud fittings are used at the end of each cable run to install and tension the cable. Studs are crimped onto the cable using a swage tool.



Tensioning the Cable

The cable assembly is tensioned by installing a cover nut set onto the studs threaded end.





HandiSwage™ Cable Infill easily integrates into your new or existing wood railing framework. The 1/8" cable is installed using a combination of through-post studs with cover nuts on level sections and surface mount tensioners on stairs. We recommend spacing wood posts 4 ft. or less apart, but the addition of cable stabilizers allow posts to be spaced up to a maximum of 7ft. apart.

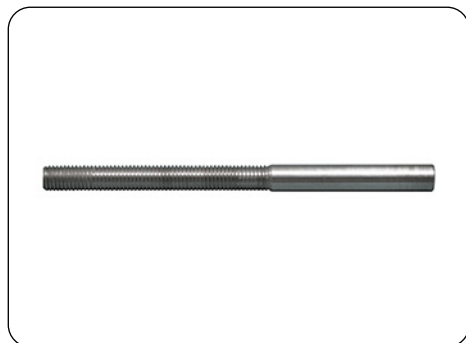
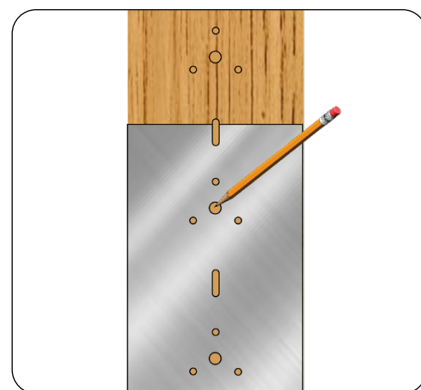
Components



Drilling Template

RailEasy™ Drilling Template, Aluminum (C0988-1000)

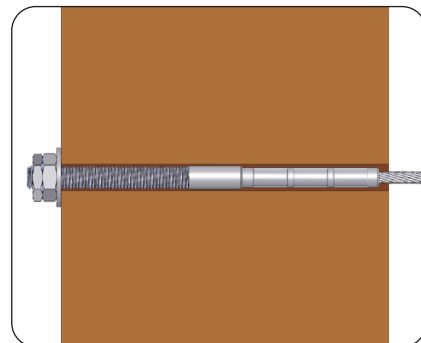
The drilling template allows for easy installation of the HandiSwage™ cable railing systems. Cable runs are spaced 3" on-center for both 36" and 42" height railing systems. The template features a hole pattern designed specifically for locating/ marking mounting holes for Single Mount Tensioners on stair posts and for through holes on mid and end posts. Cable is spaced 3" on-center for code compliancy.

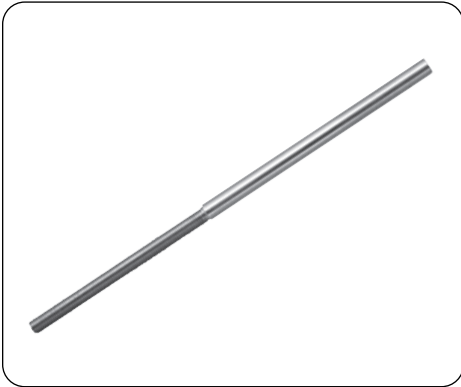


Standard Stud

1/8" HandiSwage™ Stud, 316L SS (C0731-H0703-2) 2 Pack (C0731-H0703-10) 10 Pack

This is the primary through post cable fitting used to install HandiSwage™ cable infill. Use a 9/32" drill bit for all stud though holes. The stud is designed for hand swage use only and crimps onto the 1/8" cable using one of our hand swage tools. A cover nut set is used in conjunction with the stud for tensioning the cable. Made from 316L stainless steel for maximum corrosion resistance.

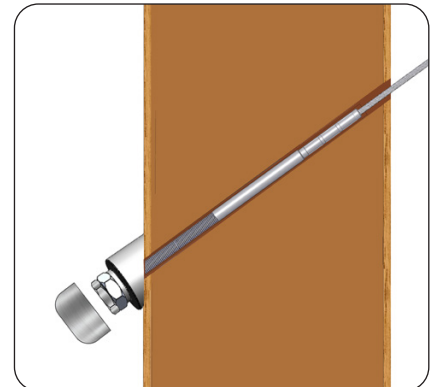




Long Stud

1/8" HandiSwage™ Long Stud, 316L SS
(C0731-HL703-2) 2 Pack

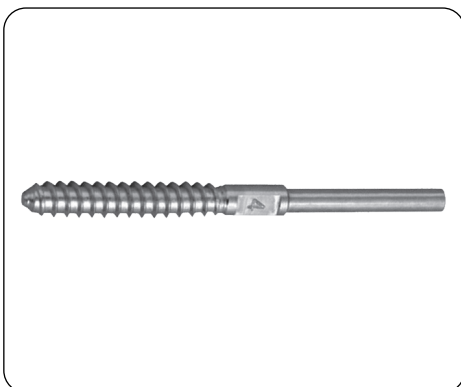
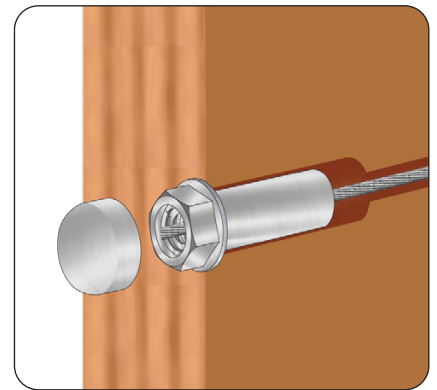
The long stud is an optional through post cable fitting for angled cable on stairs or straight runs with large posts (ie. 6"x6" or 8"x8"). Use a 9/32" drill bit for the through holes. The stud is designed for hand swage use only and crimps onto the 1/8" cable using one of our hand swage tools. A cover nut set is used in conjunction with the stud for tensioning the cable. Longer thread length allows for greater tensioning capability. Made from 316L stainless steel.



Flush Fitting

1/8" HandiSwage™ Flush Fitting, 316L SS
(C0981-P003-2) 2 Pack

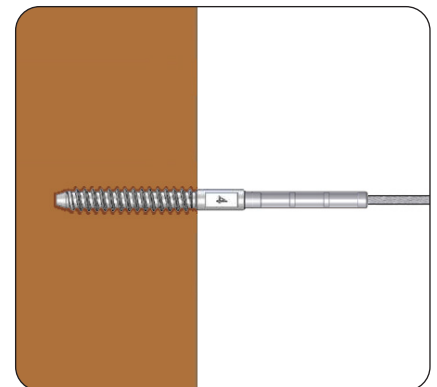
The Flush Fitting is a "fixed end" through post option that is recessed into the back side of the post and allows the cable to pass through while gripping onto the cable much like a zip tie. Drill the post with a 3/8" bit approximately 1-1/4" deep for installation. This fitting is used at one end of a cable run with a tensioning stud on the other end. NOT for use on cable sections greater than 25 ft. Cap off fitting with a Deluxe Cover Nut.



Lag Stud

1/8" HandiSwage™ Lag Stud, 316L SS
(C0731-HR03-2) 2 Pack

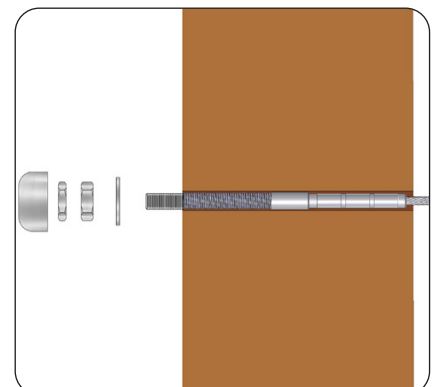
The Lag Stud is a "fixed end" option that is lag screwed into the wood post (or solid wood structure) and crimped onto the cable end using one of our hand swage tools. For installation, drill a hole with a 3/16" bit approximately 1-5/8" deep. This fitting is used at one end of a cable run with a tensioning stud on the other end. NOT for use on cable sections greater than 25 ft.



Cover Nut

Deluxe Cover Nut Set, 316 Stainless Steel
(C0307-U007-2) 2 Pack

All through-post cable fittings utilize the Deluxe Cover Nut Sets to tension and/or cap off each fitting on the backside of the posts. Use the HandiSwage™ Combo Wrench Set to install. Place the washer on the end of the stud. Tighten the tensioning nut onto stud using the wrench while holding cable to prevent rotation. Tighten the lock nut onto stud using the wrench to fully secure the assembly. Cut the exposed stud threading flush with the lock nut and install the stainless cap for a finished look.

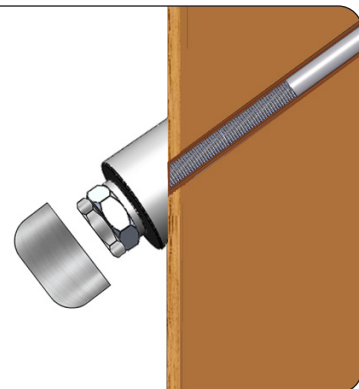




Angled Spacer

316 Stainless Steel Stair Spacers, 2 Pack
(C0841-0022-2) 22 Degrees
(C0841-0030-2) 30 Degrees
(C0841-0034-2) 34 Degrees
(C0841-0038-2) 38 Degrees
(C0841-0041-2) 41 Degrees

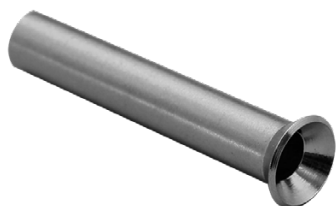
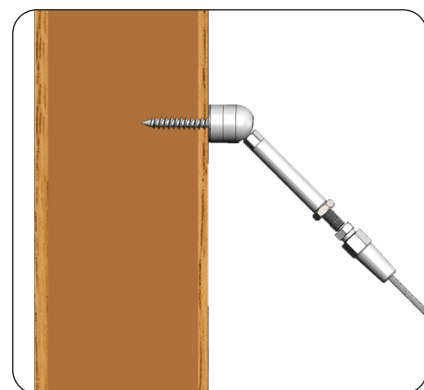
Use the stainless stair spacer in conjunction with the HandiSwage™ Stud (Standard or Long) to achieve angled cable runs on stairs. The Deluxe Cover Nut is required for proper installation and is sold separately. Custom angle stair spacers are available for special order.



Adjustable Angle Tensioner

1/8" NOVA II Single Mount Tensioner, 316 SS
(C0748-SM03-2) 2 Pack

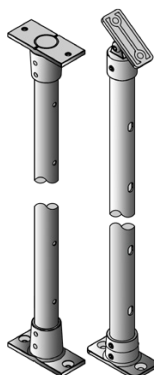
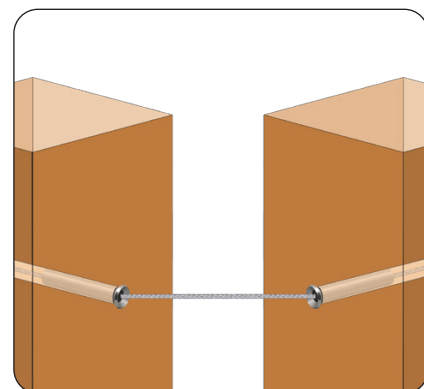
If through-post fittings conflict with your stair design, Single Mount Tensioners are a great alternative. Can achieve angles up to 45 degrees. Each tensioner is surface mounted to the wood structure with a single heavy-duty wood screw. Pre-drill the mounting hole using a 7/32" drill bit. The tensioner attaches to the cable using a cone and wedge design that is mechanically swaged (or crimped) onto the cable using wrenches. Replacement cone and wedge sets available.



Cable Sleeve

HandiSwage™ Cable Sleeve, 316L SS
(C0915-0338) 10 Pack

Passing cable through posts on corners requires "double posting". Cable Sleeves must be used where cable passes through post at an angle to prevent cable from cutting into the wood posts. For installation, drill a hole with a 7/32" bit approximately 1-1/2" deep. Cable Sleeves can be used to offer a finished look to the cable through-holes on an entire rail system, however this is purely for aesthetic reasons.

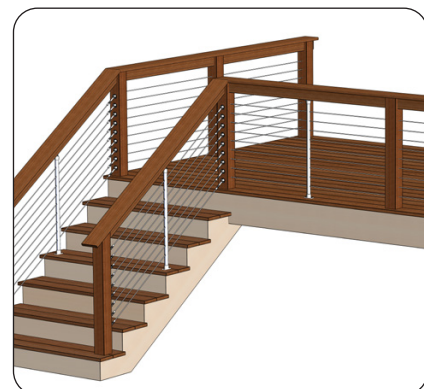


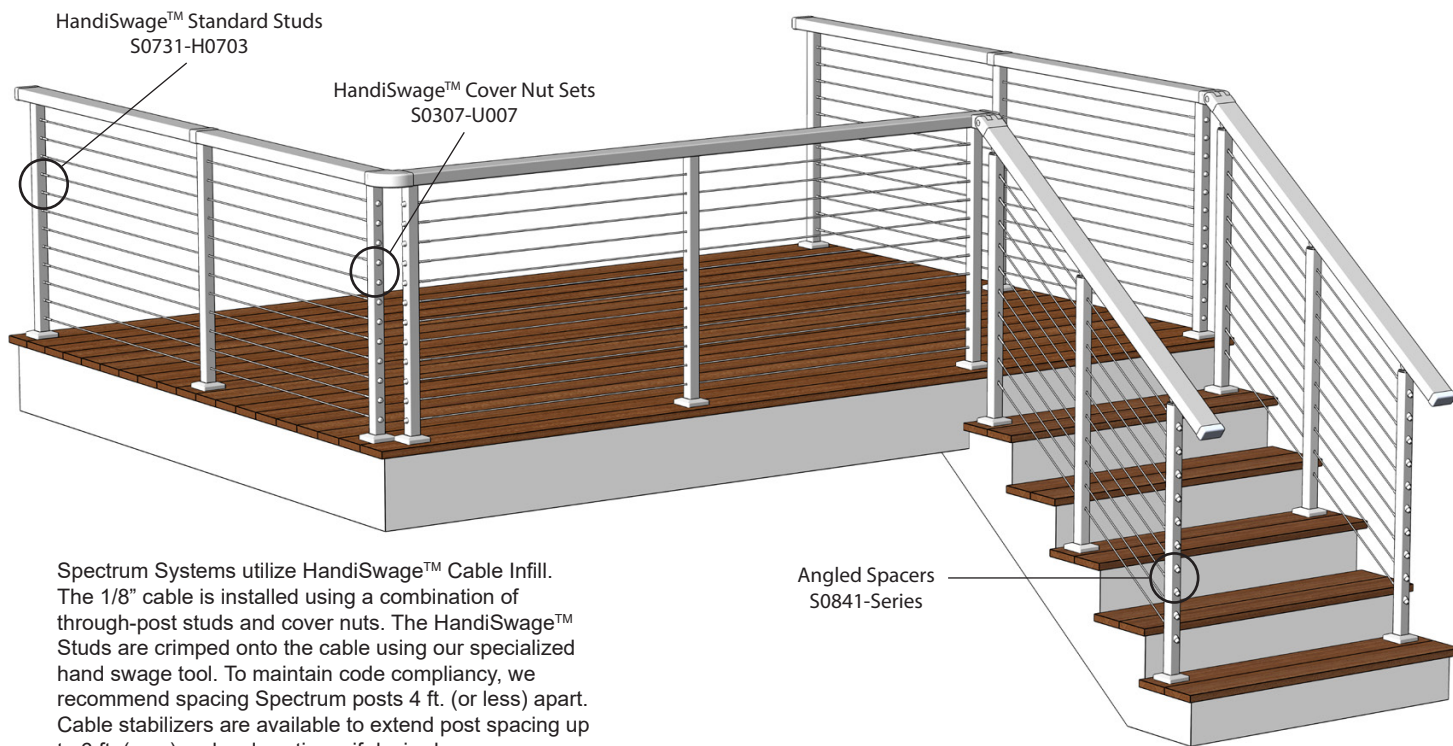
Cable Stabilizers

Cable Stabilizer Kit, 316L SS
(S0950-0060)

Cable Stabilizer Stair Kit, 316L SS
(S0950-S060)

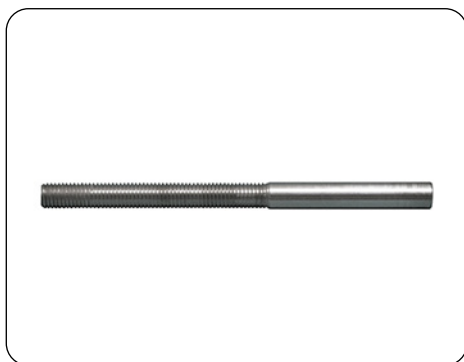
For cable spans greater than 4 ft. (up to 7 ft.), a cable stabilizer must be used to prevent cable deflection. This ensures that the cable infill remains code compliant. Each kit comes with a stanchion (1" diameter x 42" length) that can be cut at both ends for a precise fit. Cable holes/slots are spaced 3" on-center. Cable stabilizers cannot be used to replace a mid post. Kit includes fasteners.





Spectrum Systems utilize HandiSwage™ Cable Infill. The 1/8" cable is installed using a combination of through-post studs and cover nuts. The HandiSwage™ Studs are crimped onto the cable using our specialized hand swage tool. To maintain code compliancy, we recommend spacing Spectrum posts 4 ft. (or less) apart. Cable stabilizers are available to extend post spacing up to 6 ft. (max) on level sections, if desired.

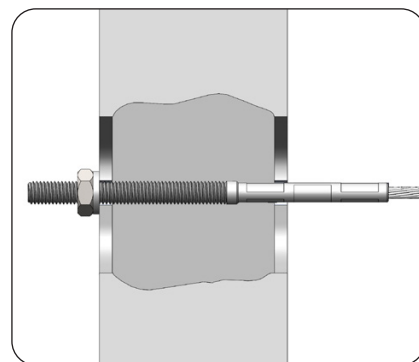
Components



Standard Stud

1/8" HandiSwage™ Stud, 316L SS
(C0731-H0703-2) 2 Pack
(C0731-H0703-10) 10 Pack

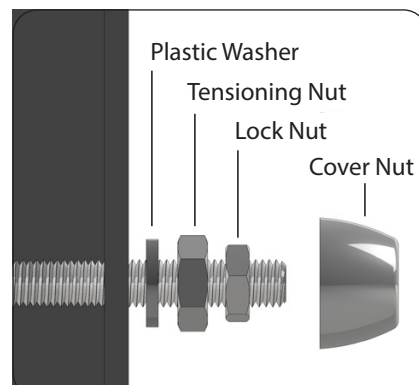
This is the primary through post cable fitting used to install HandiSwage™ cable infill. Spectrum Systems use Universal posts that are pre-drilled to allow cable and HandiSwage Studs to pass through. The stud is designed for hand swage use only and crimps onto the 1/8" cable using one of our hand swage tools. A cover nut set is used in conjunction with the stud for tensioning the cable.



Cover Nuts

HandiSwage™ Cover Nut Sets, 10 Packs
(C0309-XX02-10)

Use the cover nut set to tension and cap off each stud on the backside of the posts. Use the HandiSwage™ Combo Wrench Set to install. Place the washer on the end of the stud. Tighten the tensioning nut onto stud and install the lock nut to fully secure the assembly. Cut the exposed stud threading flush with the lock nut and install the plastic cover nut for a finished look. Offered in the standard Spectrum post colors.

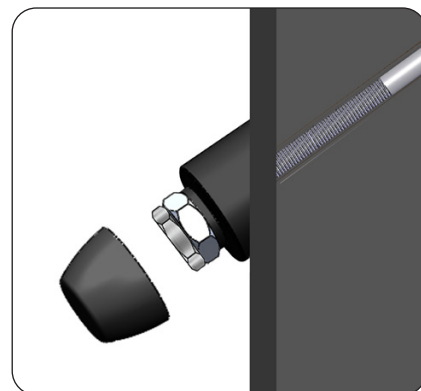




Angled Spacer, Plastic

Plastic Stair Spacers, 2 Pack
(C0841-XX30-2) 30 Degrees
(C0841-XX34-2) 34 Degrees
(C0841-XX38-2) 38 Degrees

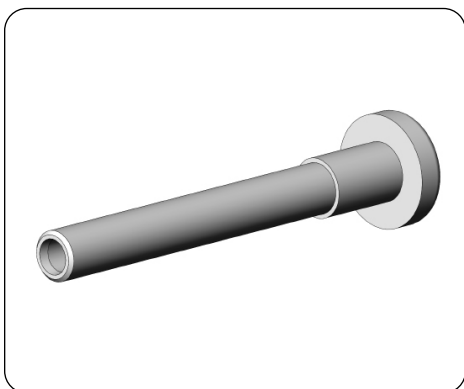
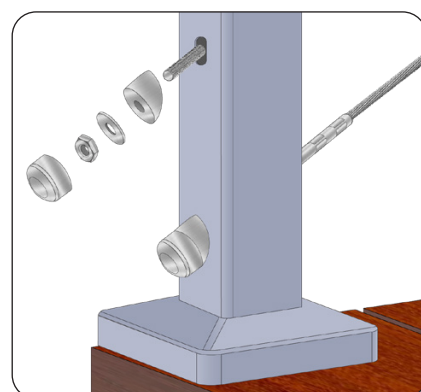
Use the plastic stair spacer in conjunction with the HandiSwage™ Stud (Standard) to achieve angled cable runs on stairs. A HandiSwage™ Cover Nut is required for proper installation and is sold separately. Offered in standard Spectrum post colors (except Metallic Silver).



Angled Spacer, Stainless

316 Stainless Steel Stair Spacers, 2 Pack
(C0841-0022-2) 22 Degrees
(C0841-0030-2) 30 Degrees
(C0841-0034-2) 34 Degrees
(C0841-0038-2) 38 Degrees
(C0841-0041-2) 41 Degrees

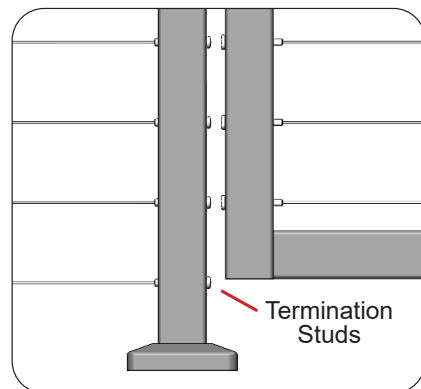
Use the stainless stair spacer in conjunction with the HandiSwage™ Stud (Standard) to achieve angled cable runs on stairs. A cover nut set (Deluxe or HandiSwage™) is required for proper installation and is sold separately. Custom angle stair spacers are available for special order.



Termination Fitting

1/8" Flat Head Termination, 316L SS
(C0731-HG0703-2) 2 Pack
(C0731-HG0703-10) 10 Pack

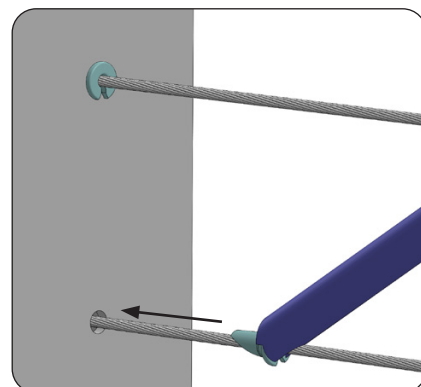
This is a "fixed" fitting used in conjunction with a HandiSwage™ Stud on the opposing end of a cable run. It is designed for use when installing cable on Spectrum Gate series Latch and Hinge Posts. The flat head on the termination stud allows for added clearance when opening and closing the Spectrum Gate. Designed for hand swage use only. Use our Hand Swager to achieve proper crimps. NOT for use on cable sections greater than 25 ft.



Cable Grommet

1/8" Cable Grommet - Long, Plastic
(C0916-0003-25) 25 Pack

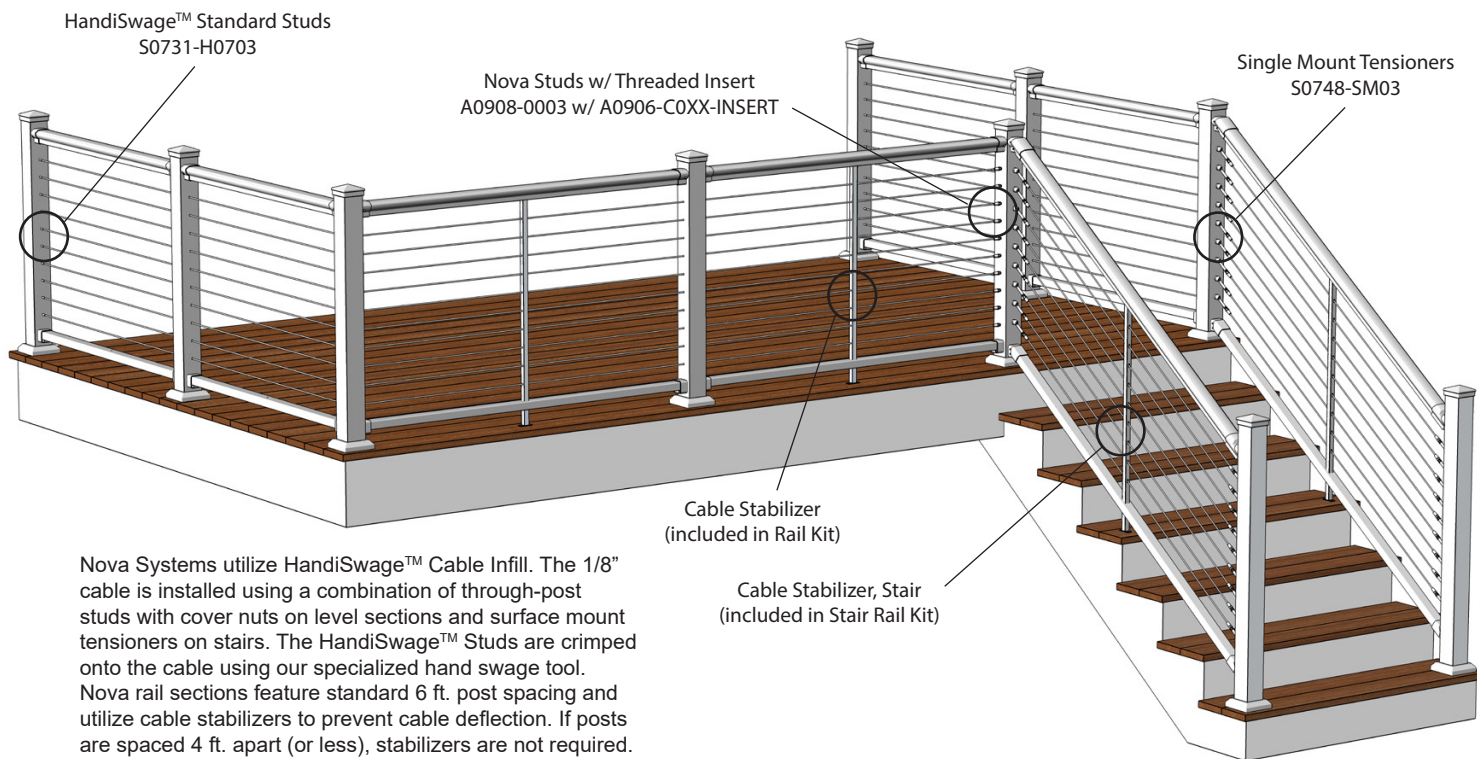
These plastic grommets make installation clean looking while reducing cable chatter and preventing water from entering the cable holes. Use the grommets on all Spectrum mid posts. Not for use on end posts and stair posts. Installation is easy using the Cable Grommet Installation Tool.



Overview

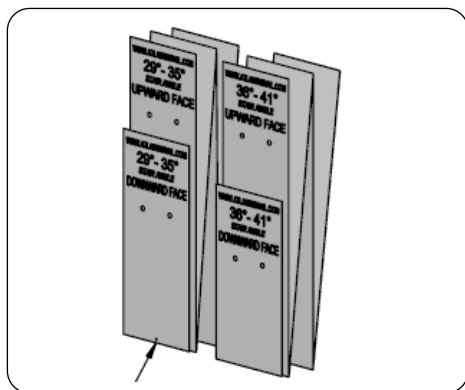


NOVA System (Modular Aluminum Railing)



Nova Systems utilize HandiSwage™ Cable Infill. The 1/8" cable is installed using a combination of through-post studs with cover nuts on level sections and surface mount tensioners on stairs. The HandiSwage™ Studs are crimped onto the cable using our specialized hand swage tool. Nova rail sections feature standard 6 ft. post spacing and utilize cable stabilizers to prevent cable deflection. If posts are spaced 4 ft. apart (or less), stabilizers are not required.

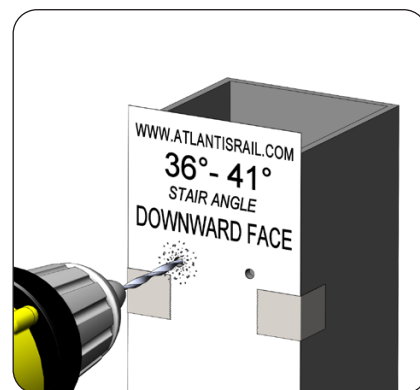
Components



Drilling Template Set

NOVA II Drilling Templates, Paper (A0906-TMP01)

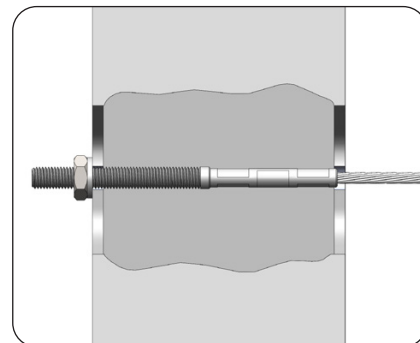
Supplied with the NOVA II Stair Rail Hardware Kit to assist in marking and drilling mounting holes in stair posts for rail brackets and tensioner installation. Within each template set there is a pair of templates for 29-35 degree stairs and a pair for 36-41 degree stairs. Use on the top and bottom "undrilled" stair posts for installing the rail brackets and tensioners. Use on the slotted mid posts for installing the rail brackets ONLY.



Standard Stud

1/8" HandiSwage™ Stud, 316L SS
(C0731-H0703-2) 2 Pack
(C0731-H0703-10) 10 Pack

This is the primary through post cable fitting used to install HandiSwage™ cable infill. NOVA Systems use Universal posts that are pre-drilled to allow cable and HandiSwage Studs to pass through. The stud is designed for hand swage use only and crimps onto the 1/8" cable using one of our hand swage tools. A cover nut set is used in conjunction with the stud for tensioning the cable.

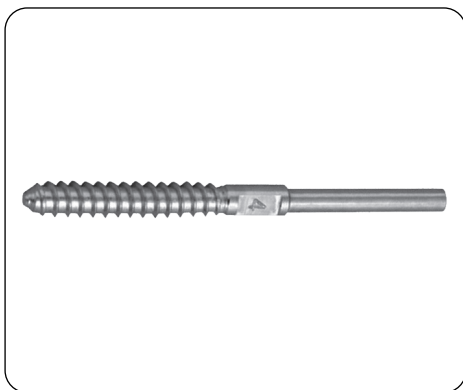
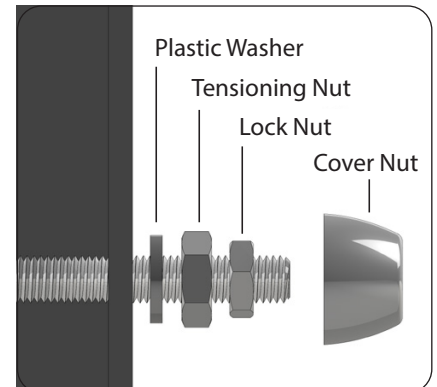




Cover Nuts

NOVA II Cover Nut Sets, 10 & 12 Packs
(C0906-BK02-10 & -12) Black
(C0906-BZ02-10 & -12) Bronze
(C0906-WH02-10 & -12) White

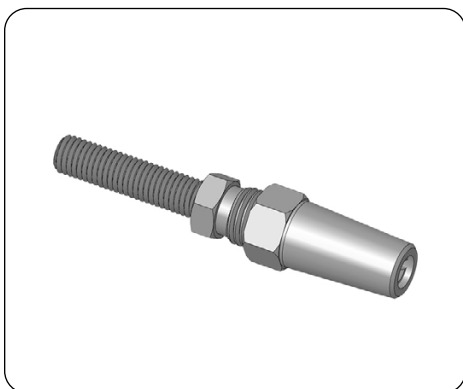
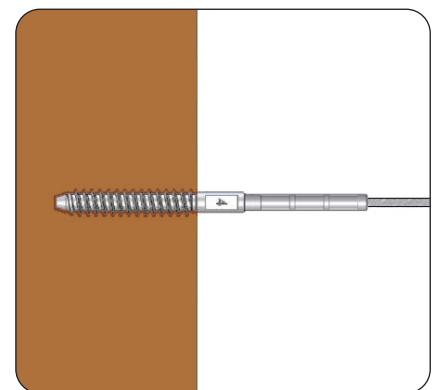
Use the cover nut set to tension and cap off each stud on the backside of the posts. Use the HandiSwage™ Combo Wrench Set to install. Place the washer on the end of the stud. Tighten the tensioning nut onto stud and install the lock nut to fully secure the assembly. Cut the exposed stud threading flush with the lock nut and install the plastic cover nut for a finished look.



Lag Stud

1/8" HandiSwage™ Lag Stud, 316L SS
(C0731-HR03-2) 2 Pack

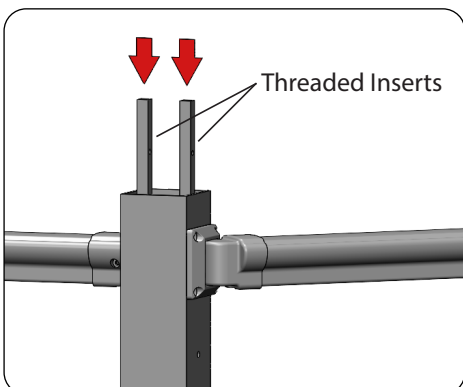
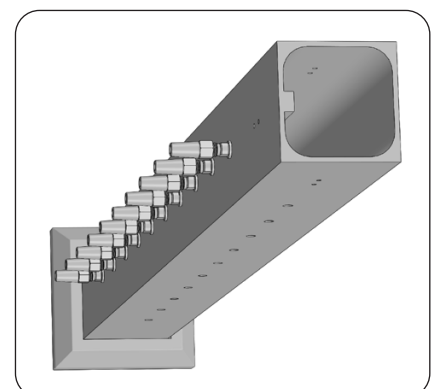
The Lag Stud is a "fixed end" option that is lag screwed into the solid wood structure (wall or column) and crimped onto the cable end using one of our hand swage tools. For installation, drill a hole with a 3/16" bit approximately 1-5/8" deep. This fitting is used at one end of a cable run with a tensioning stud on the other end. NOT for use on cable sections greater than 25 ft.



NOVA Stud

1/8" Nova II Stud, 316L Stainless Steel
(A0906-0003) Individual

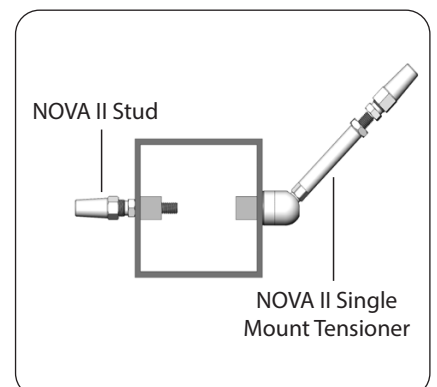
The NOVA II Stud is a "fixed end" option that is threaded into the corner post (or threaded insert) and mechanically swaged onto the cable using wrenches. Standard Corner Posts are pre-drilled and threaded to accept the NOVA Studs, while Undrilled & Universal posts require a threaded insert on the inside of the post to install the studs. The stud features 1/4"-28 UNF threading and is made from grade 316L stainless steel for corrosion resistance. NOT for use on cable sections greater than 25 ft.

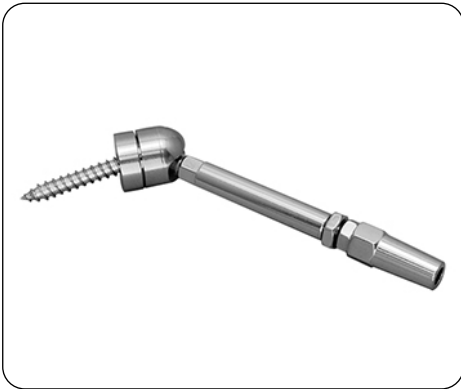


Threaded Insert

36" Threaded Insert, Aluminum
(A0906-C036-INSERT)
42" Threaded Insert, Aluminum
(A0906-C042-INSERT)

The Threaded Insert is used in conjunction with NOVA posts to install the NOVA Studs and/or Single Mount Tensioners. NOVA Studs are used as a fixed end. The Single Mount Tensioners are used on angled rail section on level decks. They attach to the Threaded Insert using a single machine screw and can achieve angles up to 45 degrees.

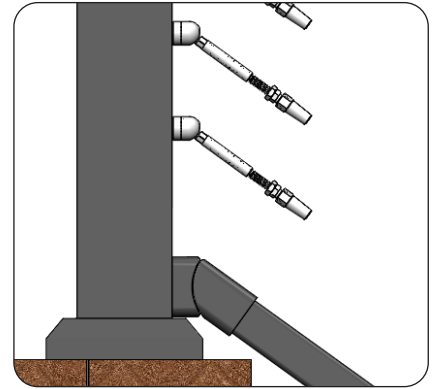




Adjustable Angle Tensioner

1/8" NOVA II Single Mount Tensioner, 316 SS
(C0748-SM03-2) 2 Pack

The Single Mount Tensioner is typically used for cable on angled stair sections, but can be used on angled level sections. Each tensioner is surface mounted to the stair post with a single heavy-duty wood screw (or a machine screw into a threaded insert for angled level sections). For stairs applications, pre-drill the mounting hole using a 7/32" drill bit. The tensioner attaches to the cable using a cone and wedge design that is mechanically swaged onto the cable using wrenches.

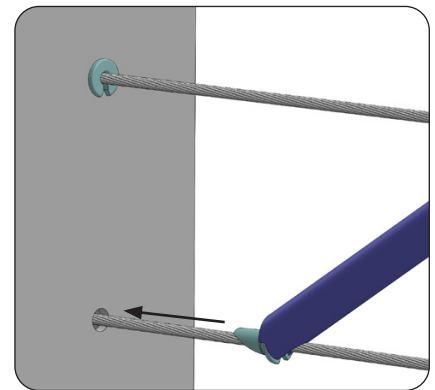


Cable Grommet

1/8" Cable Grommet - Long, Plastic
(C0916-0003-25) 25 Pack

1/8" Cable Grommet - Short, Plastic
(C0916-A003-25) 25 Pack

These plastic grommets make installation clean looking while preventing contact between stainless components and aluminum posts. They also help keep water from entering the cable holes. Use the longer grommets on posts and the shorter grommets on cable stabilizers. Installation is easy using the Cable Grommet Installation Tool.



Cable Railing Basics

REGARDLESS OF WHAT ATLANTIS CABLE RAILING YOU USE, WE WANT TO MAKE SURE YOU INSTALL YOUR CABLE RAILING TO A SAFE AND CODE COMPLIANT SPECIFICATION.

To start planning your project always make sure you check with your local code compliance official before starting your cable railing project. They may have special requirements.

The first three basics of cable railing involve spacing; cable spacing, post spacing and total area covered (length of runs).

WE DEFINE THESE SPECIFICATIONS AS THE RULE OF 3, 4, 5.

- 3** Cable spacing must **NEVER EXCEED 3 INCHES**.
- 4** Distance between post can **NEVER EXCEED 4 FEET**, if it is necessary to have post spacing over 4 ft., always add cable stabilizers.
- 5** Cable runs should **NOT EXCEED 50 FEET** in total length.

OTHER MUST HAVE / MUST DO CRITERIA AND SPECIFICATIONS FOR CABLE RAILING

- You must always use a top rail.
- You must make sure your structure offers proper blocking where posts are mounted per your local building codes.
- You must follow the manufacturer's instructions including cleaning and maintenance.
Stainless steel is "low" maintenance, not "no" maintenance.

HandiSwage™ on Wood

1. Longer cable runs (up to 50 ft. max) require tensioning on each end.

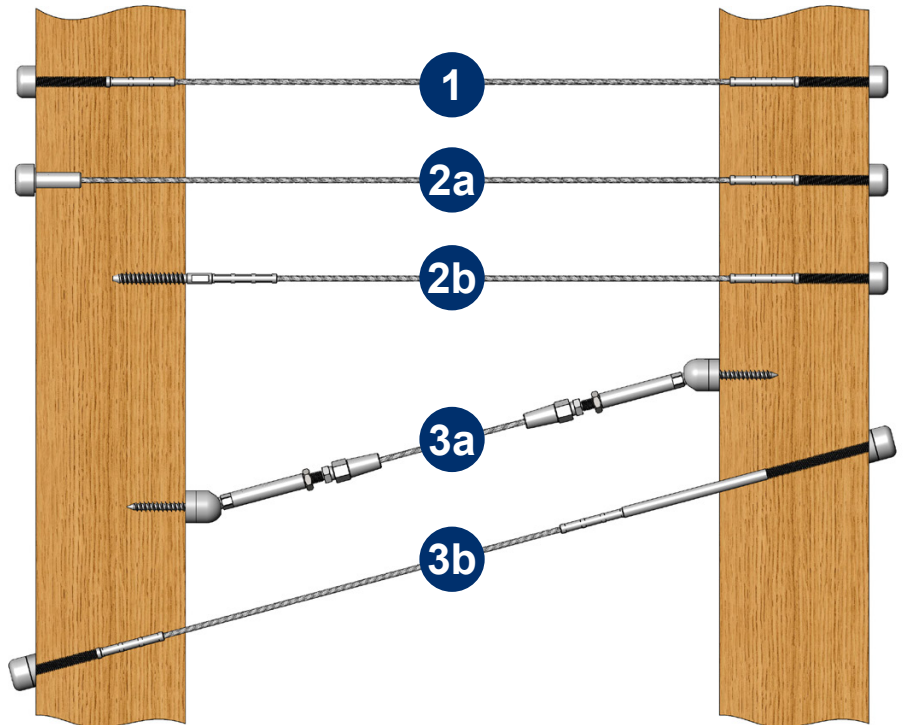
Longer cable runs on level section railing must use HandiSwage™ Standard Studs on each end of the cable to achieve proper cable tension.

2. Shorter cable runs (up to 25 ft. max) can use a fixed end option, but must have a tensioning stud on the opposing end.

- Use HandiSwage™ Flush Fittings as a fixed end option on level section end posts and double posted corners.
- Use HandiSwage™ Lag Studs as a fixed end option on level sections that terminate into a wood structure (wall or column) or a single posted corner.

3. Angled cable runs (up to 50 ft. max) require tensioning on each end.

- Use Single Mount Tensioners when a surface mount option is needed/desired. Can accommodate up to 45 degree stair angles.
- Use HandiSwage™ Studs in conjunction with Angled Spacers that match the stair angle. Standard Studs are typically used, however Long Studs can be used on large format posts and timbers.



HandiSwage™ on Spectrum

1. Straight cable runs (up to 50 ft. max) require tensioning on each end.

Longer cable runs on level section railing must use HandiSwage™ Standard Studs on each end of the cable to achieve proper cable tension.

2. Shorter cable runs (up to 25 ft. max) in proximity to gate openings use a termination stud, but must have a tensioning stud on the opposing end.

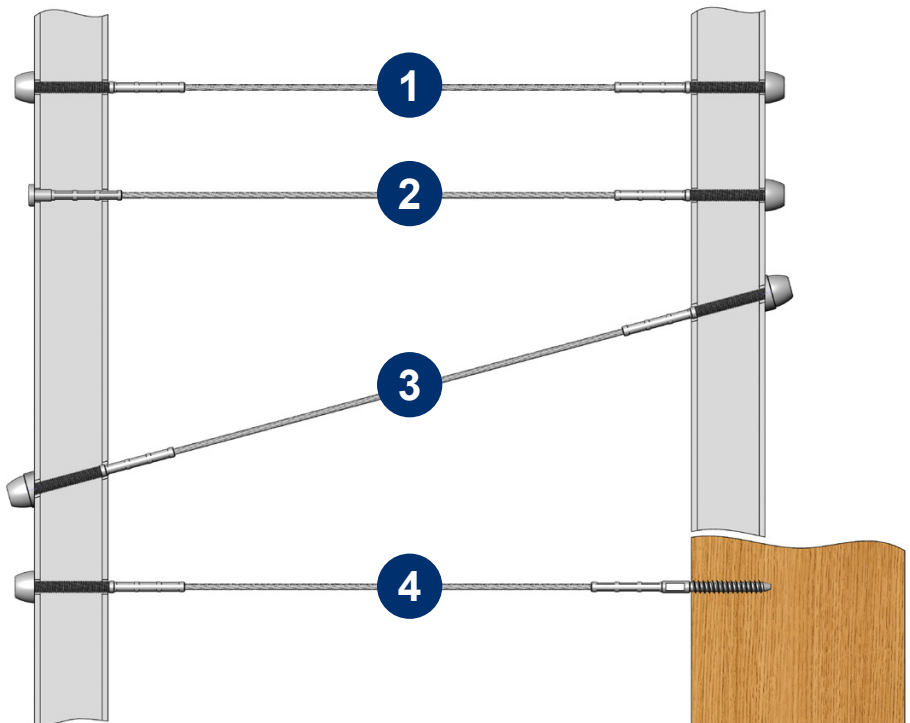
Use HandiSwage™ Termination Studs as a fixed end option on level sections that end at a gate opening. These fittings allow for maximum gate clearance.

3. Angled cable runs (up to 50 ft. max) require tensioning on each end.

Use HandiSwage™ Studs in conjunction with Angled Spacers that match the stair angle.

4. Shorter cable runs (up to 25 ft. max) can use a Lag Stud as a fixed end, but must have a tensioning stud on the opposing end.

Use HandiSwage™ Lag Studs as a fixed end option on level sections that terminate into a wood structure (wall or column).



HandiSwage™ on Nova

1. Longer cable runs (up to 50 ft. max) require tensioning on each end.

Longer cable runs on level section railing must use HandiSwage™ Standard Studs on each end of the cable to achieve proper cable tension.

2. Shorter cable runs (up to 25 ft. max) can use a fixed end fitting, but must have a tensioning fitting on the opposing end.

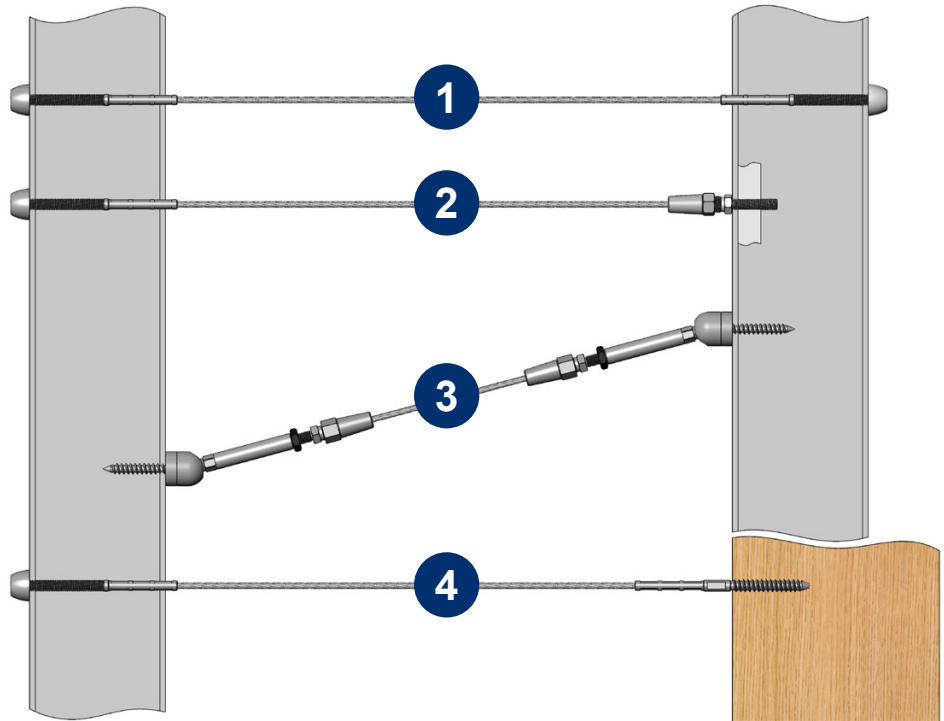
Use Nova Studs as a fixed end option on level railing with standard corner posts or undrilled posts with a threaded insert.

3. Angled cable runs (up to 50 ft. max) require tensioning on each end.

Use Single Mount Tensioners for stairs and angled section railing. Can accommodate up to 45 degree stair angles.

4. Shorter cable runs (up to 25 ft. max) can use a Lag Stud as a fixed end, but must have a tensioning stud on the opposing end.

Use HandiSwage™ Lag Studs as a fixed end option on level sections that terminate into a wood structure (wall or column).



Installation Tools



RailEasy™ Cable Cutter (C0989-00HD)

This cutter features heat treated blades which cleanly cut up to 5/32" diameter cable. Great for smaller, economical jobs where fewer cuts are necessary.



Heavy Duty Cable Cutter (E0111-WR06)

Drop forged cutting blades cut cable cleanly and allow for more cuts than our smaller units. The handles are longer for more leverage and feature rubber grips for comfort. For cutting cable up to 3/16" diameter.



HandiSwage™ Hand Swager (E0113-H600)

This swager crimps hand swage studs onto 1/8", 5/32" and 3/16" cable. After Swage Gauge included to confirm proper swaging. For use with HandiSwage™ Series ONLY.



HandiSwage™ Bench Swager (E0115-H600)

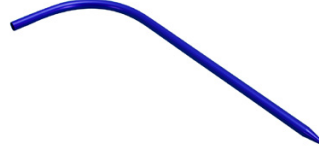
This swager crimps hand swage studs onto 1/8", 5/32" and 3/16" cable. After Swage Gauge included to confirm proper swaging. For use with HandiSwage™ Series ONLY.



Straight Lacing Needle, 2 Pack

(C0988-4000-2)

Use the Cable Lacing Needle with 1/8" and 5/32" cable. It helps guide cable through post holes without snagging to ensure a quick and easy cable railing installation.



Curved Lacing Needle, 2 Pack

(C0988-400C-2)

Use this lacing needle to feed cable through the NOVA Corner Post with Inserts. Makes passing cable through adjacent post faces easy.



Cable Grip Pad, 3 Pack

(E0114-0000)

This neoprene pad is used between vice grips and cable during the tensioning process to prevent damage to the cable.



HandiSwage™ Combo Wrench Set

(C0731-TK01-2)

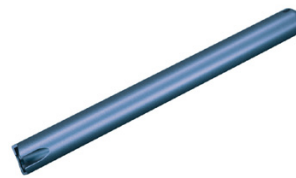
This set consists of (2) 3/8" & 7/16" combination wrenches. These are used to tension studs and install cover nut sets.



Cutting Disk, 2 Pack

(E0113-CD04-2)

Cutting disk used to cut threads on HandiSwage™ studs after installation. Not recommended for cutting cable. For cutting metal only. Never exceed Max RPM of 13,300.



Cable Grommet Install Tool

(E0916-1000)

This simple tool makes installing cable grommets quick and easy. Designed to clip grommet onto cable and push them into post holes.



Spectrum Touch Up Paint, 6oz.

(P0904-P001-BK) Black
(P0904-P001-BR) Dark Brown
(P0904-P001-MT) Metallic Silver
(P0904-P001-WH) Pure White

Use Spectrum touch-up paint to fix any scratches which may occur to the powder coat finish during the installation process.



NOVA Touch Up Paint, 6 oz.

(A0906-P052-BK) Black
(A0906-P052-BZ) Bronze
(A0906-P052-WH) White

Use NOVA touch-up paint to fix any scratches which may occur to the powder coat finish during the installation process.



Rail Cleaning Kit

(E0100-K001)

Clean your rail system with the Rail Cleaning Kit when it is dirty.
Kit includes: Bottle of Car Wash Soap, MicroFiber Cloth and Cleaning Instructions.