## feeney® ARCHITECTURAL & GARDEN PRODUCTS





## feeney<sup>®</sup> makes it easy

Since 1948, Feeney has pioneered industry-leading cable rail systems and other architectural and rigging products. We are known for our very high quality, and we constantly strive to simplify the way our customers work with us and our products. We think you will find that all of our products are easy to use, with advantages that are quite compelling.

The bottom line: If you want the highest quality architectural solutions supported by a friendly and easy process, you've come to the right place. Feeney makes it easy!

Many of our products are available for purchase through a network of authorized dealers. Be sure



to look for the official Authorized Feeney Dealer logo on the dealer website or in-store display to ensure

that you are buying authentic Feeney products. For questions or assistance locating a Feeney dealer near you, please call toll free 1-800-888-2418.

Also see us on:



## feeney<sup>®</sup>makes it easy

#### 2014 CATALOG

A st	CableRail       .5         wide selection of both standard and custom stainless       .5         teel cable assemblies for use as infill on railings, fences,       .6         CableRail Standard Assemblies       .6         CableRail Custom Assemblies       .18
P av	<b>DesignRail</b>
S	<b>ta-Lok</b>
C SI	<i>ightline</i>
р М	<i>rellis Collection</i>
S	<b>Finch</b>



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#### Feeney Environmental Statement

Feeney, Inc. fully supports the vision of developing and promoting environmentally responsible products and building practices in order to protect and manage our resources for future generations. Making this vision a reality is critical to the preservation of our resources, strength of our economy, and future of the world, and we all must get involved and do our part. To that end, Feeney is participating in the following ways:

#### Our Products:



- Made from stainless steel and aluminum with a high recycled content.
  (Our recycled content symbol identifies all of our products that include recycled materials.)
- Durable and long lasting, thereby extending use cycles, reducing replacement costs, and maximizing material usage efficiency.
- Very low maintenance, requiring no contaminating treatments, stains, varnishes, or preservatives.
- Strong yet lightweight, allowing easier handling, lower shipping costs, and less fuel consumption.
- Energy saving trellis products, supporting cooling deciduous foliage in the summer yet allowing maximum sunlight and warmth during dormant winter months.
- Powder-coated parts, using a state-of-the-art powder-coating facility that emits no V.O.C.s or heavy metal waste, uses a non-chromium pre-treatment wash, and reclaims 93% of the waste water via a reverse-osmosis membrane filtration system.

#### Our Facilities:

- A 380 panel (over 5,000 sq.ft.) photovoltaic solar array that produces as much as 90 DC kilowatts of clean, sun-generated electricity, enough "juice" to potentially offset the facility's entire energy needs. (See the electrical output and direct environmental benefits of this system by clicking the Solar Power link on our website Environmental page.)
- A fully automated, computerized machining center that manufactures parts into the non-peak-electric evening hours without the need of technicians, lighting, or heating.
- An energy efficient warehouse and shop that require no heating or cooling due to fully insulated walls and 32-ft high vented ceilings.



- Overhead florescent fixtures that offer energy saving lighting throughout the entire facility.
- An ongoing recycling program that includes paper, cardboard, cans, bottles, and all residual metal machining shavings.

To discuss how our products can help you earn **Leadership in Energy** & Environmental Design (LEED<sup>®</sup>) credits for your upcoming projects, please give us a call at 1-800-888-2418.



RECYCLED CONTENT





#### Stainless Steel Cable Assemblies that Enhance Any Railing and Any View!

Slender *CableRail* cable assemblies are the perfect railing infill alternative to pickets and glass panels. They're made from beautiful yet weather-tough 316-grade stainless steel with an assortment of cable and attachment hardware options. The assemblies are strong, durable, easy to install, low maintenance, and virtually invisible. Easy on both the eyes and the view, they're an ideal complement to any railing design, indoors or out, and with a recycled material content over 70%, they're easy on the environment as well.

#### Our CableRail product line is divided into two categories:

- 1) Standard Cable Assemblies (page 6)
  - Our most popular and affordable assemblies
  - Sold in pre-cut standardized lengths; easily trimmed to size in the field
  - Include special patented Quick-Connect®SS end fittings for fast, trouble-free installation
  - 3 cable sizes, low-profile components, quick to measure, simple to order, and very easy to install

#### 2) Custom Cable Assemblies (page 18)

- For projects with special installation conditions or design aesthetics
- Wide assortment of cable and fitting options from which to select
- Sold as complete assemblies, ready to install, or as individual components that can be assembled in the field
- Our experienced sales staff can assist you every step of the way

#### **Continuing Education Course**

Our course entitled *Cable Railing Assemblies: Prefabricated Kits & Custom Design Options* is available online for free. You can learn all about cable railings while earning continuing education units (CEU) and Health, Safety, and Welfare (HSW) credits. For information and links, please visit our website *www.cablerail.com* 



RECYCLED CONTENT

#### Standard Assemblies Make Measuring, Ordering, and Installing a Breeze.

*CableRail* Standard Cable Assemblies are sold in a wide range of standardized pre-cut lengths for easy ordering. There is no wasted time taking precise railing measurements; just select assemblies that are longer than you need and trim any excess in the field. Each assembly includes special Threaded Terminal and automatic-locking Quick-Connect®SS attachment fittings that are sleek, simple to use, and easy to conceal. The result is not only extremely durable and aesthetic but virtually invisible, allowing beautiful, unimpaired views.

- Made from high-strength, low-maintenance, weather-tough, 316-grade stainless steel
- Available in 1/8", 3/16", and 1/4" diameter cable to complement any railing design
- Sold in a wide range of standard lengths (5 ft to 70 ft in 5-ft increments) that can be trimmed to a finished dimension in the field
- Patented automatic-locking Quick-Connect<sup>®</sup>SS fittings make installation fast and easy
- May be installed on new or existing wood or metal railing frames in exterior, interior, residential, and commercial settings
- Complete installation instructions, frame requirements, 3-part specifications, and detail drawings are available at *www.cablerail.com*
- Toll-free information and assistance line, 1-800-888-2418
- Product contains recycled materials

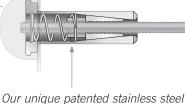


# Stainless Quick-Connect®SS fittings make cable projects quicker and easier than ever

Each assembly comes with a Threaded Terminal fitting pre-attached to one end and a field installed Quick-Connect<sup>®</sup>SS fitting for the other end. Simply secure the Threaded Terminal to one end post, lace the free end of the cable through the remaining posts, slip on a Quick-Connect<sup>®</sup>SS, tension the line, trim the excess, and finish with decorative end caps.

Flat Washer

End Cap



Quick-Connect®SS fitting is attached to the cable in the field without special tools. One-way jaws allow the cable to easily slide through the fitting in one direction but automatically grab and lock-on when the cable is released. Just slip it on, pull the cable tight, and cut the excess.



The Cable is 1x19 construction, 316-grade stainless steel for strength, durability, and weather protection. Available in 1/8", 3/16", and 1/4" diameters.



Components that are made to last. All of our cables and fittings are manufactured from high-quality 316-grade stainless steel for weather-tough durability, low maintenance, and lasting beauty.

The stainless Threaded Terminal fitting is fastened (swaged) to one end of the cable at the factory. It is then attached to an end post using our unique Snug-Grip<sup>®</sup> Washer Nut with special gripping threads to help prevent the nut from loosening. Spin the nut to adjust final tension in the line. Available in 7-1/2" length for wood posts and 4-1/4" for metal posts.

Flat Washers and Snug-Grip® Washer Nuts are all included. Attach Colored or Stainless Steel End Caps to cover, protect, and finish both ends (Caps sold separately, page 11).

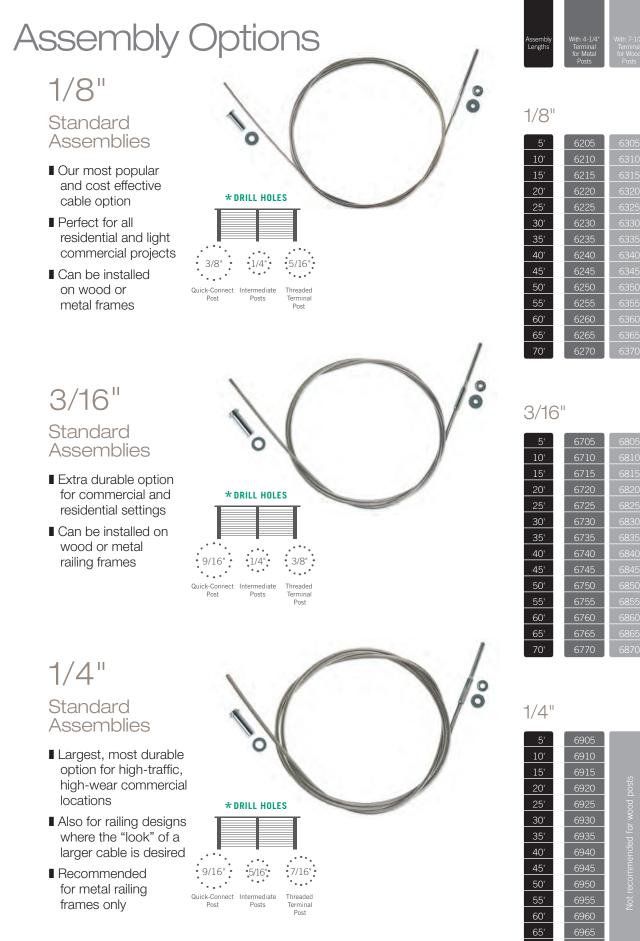
Flat Washer End Cap

Washer Nut



Our cables are designed to be used on your own wood or metal frames in either indoor or outdoor settings. However, we do offer a complete aluminum railing frame system. See details in the DesignRail<sup>®</sup> Aluminum Railing Systems section (page 40) or visit www.designrail.com





\* Note: Drill hole sizes may differ if using Isolation Bushings (pg.12). Call to confirm correct drill sizes.



Assemblies are shipped with a Threaded Terminal fitting attached to one end and a field installed Quick-Connect®SS fitting for the other end. A Snug-Grip® Washer Nut, and a pair of Flat Washers are included. End Caps snap on to the exposed Quick-Connect®SS fittings and Snug-Grip<sup>®</sup> Washer Nuts to cover, protect, and finish both ends (caps sold separately).



#### **COLORED END CAPS** (Polyethylene)

(			
Part#	Color	Size	
7071	Black	3/4"0D x 7/16"H	
7072	White	3/4"0D x 7/16"H	
7073	Brown	3/4"0D x 7/16"H	
7074	Gray	3/4"0D x 7/16"H	
7075	Silver	3/4"0D x 7/16"H	
7076	Taupe	3/4"0D x 7/16"H	
7077	Bronze	3/4"OD x 7/16"H	
7078	Green	3/4"0D x 7/16"H	
7079	Cream	3/4"0D x 7/16"H	



#### STAINLESS END CAPS (316 Stainless)

Part#	Style	Size
3372	Dome	3/4"0D x 3/8"H
3373	Crown	3/4"OD x 3/8"H
3374	Chamfer	3/4"OD x 3/8"H

CADLE · RAIL®

## Extra Parts & Tools



#### **RUBBER GROMMETS**

- (Optional) For adding a finished detail to holes in tubular metal intermediate posts
- Use with 1/8" diameter cable only
- Fits 1/4" diameter drill holes

Part#

3213 1/4"OD x 3/16" groove, 7/16" flange

Size

#### **ISOLATION BUSHINGS**

- For eliminating direct contact of dissimilar metals to minimize electrolysis when attaching cables and fittings to metal posts in areas with salt air or similar harsh elements
- Engineered polymer that's highly resistant to abrasion and UV degradation
- Wide operating temperature range, -40°F to +266°F

Must use silicone sealant (not included) to secure bushings	in posts
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Part#	Used On	Size	HoleØ
1100	1/8" Quick-Connect®SS	3/8"ID x 15/32"OD, 11/16" flange	15/32"
1101	1/8" Cable	3/16"ID x 1/4"0D, 3/8" flange	1/4"
1102	1/8" Threaded Terminal	1/4"ID x 5/16"0D, 1/2" flange	5/16"
1103	3/16" Quick-Connect <sup>®</sup> SS	35/64"ID x 5/8"0D, 55/64" flange	5/8"
1102	3/16" Cable	1/4"ID x 5/16"0D, 1/2" flange	5/16"
1100	3/16" Threaded Terminal	3/8"ID x 15/32"OD, 11/16" flange	15/32"
1103	1/4" Quick-Connect®SS	35/64"ID x 5/8"0D, 55/64" flange	5/8"
1104	1/4" Cable	9/32"ID x 23/64"OD, 19/32" flange	23/64"
1105	1/4" Threaded Terminal	7/16"ID x 17/32"OD, 3/4" flange	17/32"

Note: HoleØ is the required post hole size after any galvanized, paint, or powder coatings are applied to the metal frame. Metal frames are all different, so please call to confirm correct bushing sizes and corresponding hole diameters for your frame condition. Also see the Accessories section on our website *www.cablerail.com* 

#### STAINLESS BEVELED WASHERS (316 Stainless)

For providing a flat bearing surface when attaching fittings at angled stair terminations
 32° angle to fit most stairs

Part#	Fitting Used	Size
3792	1/8" Quick-Connect®SS	3/8"ID x 3/4"0D
3799	1/8" Threaded Terminal	9/32"ID x 3/4"0D
3798	3/16" Quick-Connect®SS	9/16"ID x 3/4"OD
3799	3/16" Threaded Terminal	9/32"ID x 3/4"OD
3798	1/4" Quick-Connect®SS	9/16"ID x 3/4"OD
3792	1/4" Threaded Terminal	3/8"ID x 3/4"0D

#### **STAINLESS PROTECTOR SLEEVES** (316 Stainless)

- (Wood posts only) For protecting corner and stair transition posts from cable abrasion
  - Use with 1/8" and 3/16" diameter cables
  - Fits 1/4" diameter drill holes

Part#	Size
3210	1/4"OD x 7/8" L, 1/2" flange

#### FEENEY ALUMINUM INTERMEDIATE PICKETS

- (Wood frames only) slender, low-maintenance, time-saving vertical spacer option for maintaining cable spacing
  - Pre-drilled for 1/8" cables at 3" spacing
- Slotted holes in stair pickets accommodate 20-45 degree slope
- Field trimmed to fit railings up to 42" high
- Powder coated finish, available in Silver, Black, & White
- Includes base plates and screws

Part#	Description
7648 SLV-pkg	Level rail picket, 3/4" sq x 44" long; Silver
7649 SLV-pkg	Stair rail picket, 3/4" sq x 46" long; Silver
7648 BLK-pkg	Level rail picket, 3/4" sq x 44" long; Black
7649 BLK-pkg	Stair rail picket, 3/4" sq x 46" long; Black
7648 WHT-pkg	Level rail picket, 3/4" sq x 44" long; White
7649 WHT-pkg	Stair rail picket, 3/4" sq x 46" long; White



7648 SLV-pkg









For drilling holes through wood or metal posts

Part#	Size x Length	Part#	Size x Length
3201	1/4" x 6"	3218	7/16" x 7-1/2"
3203	5/16" x 6-1/2"	*3225	9/16" x 6"
3217	3/8" x 6-1/2"		

\*Note: #3225 fits 1/2" chuck

#### **BI-METAL SAW BLADES**

Option for trimming excess Threaded Terminal threads

Part#	Description
3199	12" Hacksaw blade
5065	6" Reciprocating Saw blade

#### **ABRASIVE DISKS**

For trimming and touching-up exposed cable and threads
 Fits 4-1/2" electric grinders with 7/8" arbor holes

FILS 4-1/Z	electric grinders with 7/8 arbor holes
Part#	Description
3219	Cut-Off Disk (designed for cutting stainless)
3220	Grinding Disk

#### CABLE CUTTERS

For shearing excess cable

Part#	Cable	Length
2972-pkg	up to 1/8"	7-1/2"
2971	up to 1/4"	13"

#### **QUICK-CONNECT® RELEASE TOOLS**

■ For disengaging and removing or readjusting the Quick-Connect<sup>®</sup>SS fittings

Part#	Description
3128	for 1/8" Quick-Connect <sup>®</sup> , reusable
3158	for 3/16" Quick-Connect <sup>®</sup> , reusable

#### CABLE LACING NEEDLES

For quickly lacing cable ends through posts without snagging

Part#	Cable Size	Length
3221	1/8"	4-1/2"
3222	3/16"	4-1/2"
3223	1/4"	4-1/2"

#### **ENVIRO-MAGIC® CLEANER**

- For cleaning and protecting cable and hardware
- Non-toxic, biodegradable

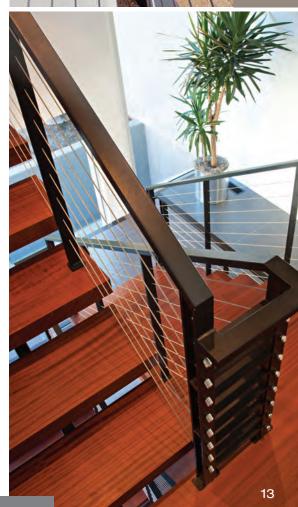
Part#Description506316 oz. spray bottle

#### CABLERAIL ACCESSORY KITS

- Handy kit for installing and maintaining CableRail cables and fittings
- Kit includes: Enviro-Magic<sup>®</sup> Cleaner, Lacing Needle, Quick-Connect<sup>®</sup> Release Tool

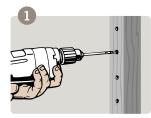
Part#	Cable Size
CR-KIT	1/8"
CR-KIT 3-16	3/16"





## 8 Easy Installation Steps

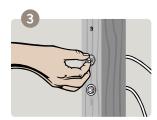
Complete step-by-step installation instructions and details are available at www.cablerail.com



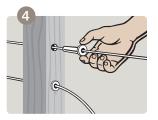
Measure, mark, and drill holes in all posts.



Insert Protector Sleeves (wood posts) or Grommets/Isolation Bushings (metal posts) at necessary locations.



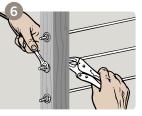
Insert the Threaded Terminal into one end termination post and secure with a Snug-Grip<sup>®</sup> Washer Nut. Spin Nut 2 to 3 turns.



Lace the free end of the cable through the remaining posts and slide on a Quick-Connect®SS fitting.



Pull the cable through the Quick-Connect®SS fitting to remove the excess slack in the line.



Tighten the Snug-Grip® Washer Nuts to adjust the final tension in the line. A Tension Gauge may be used to check uniform tension.

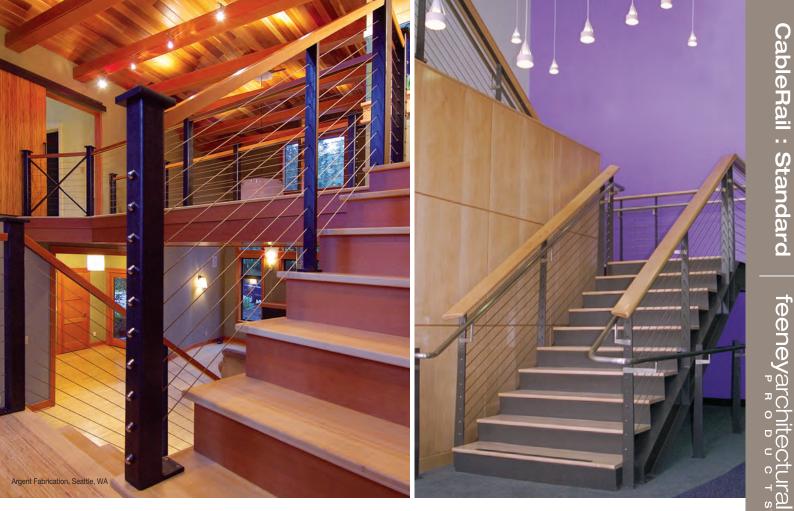


Trim the excess threads on the Threaded Terminal and excess cable behind the Quick-Connect<sup>®</sup>SS.

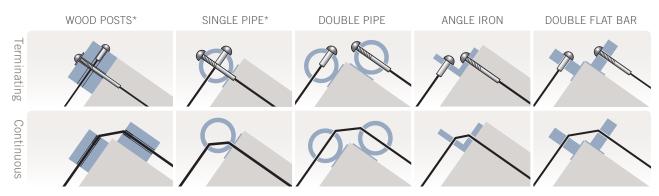


Snap on decorative End Caps over the exposed ends of the Quick-Connect®SS fittings and Snug-Grip® Washer Nuts.





Cables can either terminate or run through corner posts.



\*Offset drill holes at least 1/2" if you choose to have cables terminating at a single wood or pipe post.

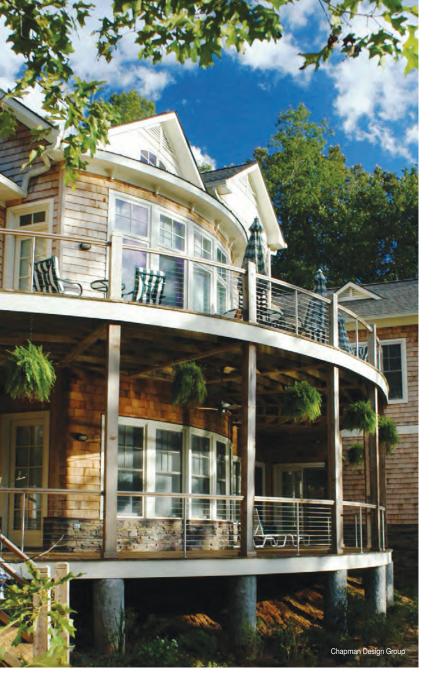
#### CONSTRUCTION CHECKLIST

- Space cables no more than 3 inches apart
- Space posts/verticals no more than 3 feet apart

#### **IMPORTANT NOTES**

- Use minimum end/corner post sizes shown on page 36
- Securely fasten all posts and cap rails
- Carefully plan all termination and corner posts for proper clearance, positioning, and maximum cable run lengths

- Since building codes vary by state, county, and city, our recommendations may not comply with code requirements in all areas. Always consult with your local building department before starting your project.
- **CableRail** cable assemblies and fittings are designed for use on railings, fences, and trellises only. They should never be used for lifting, hanging, or high load applications.



#### A FEW WORDS ABOUT STAINLESS STEEL

The protective chromium oxide film on the surface of stainless steel gives it superior corrosion resistance. Properly maintained stainless steel provides excellent luster, strength, and durability. In most applications, stainless steel will not rust or stain even after years of service, but it is NOT rust or stain proof. When stainless comes in contact with chloride salts, sulfides, or other rusting metals, it can discolor or even rust and corrode. With proper care and maintenance, however, stainless steel can remain beautiful and functional for years to come, even when exposed to marine environments, polluted surroundings, salted highways, or other corrosive elements. For complete care and maintenance instructions, please visit www.cablerail.com

## Railing Frame Requirements

It is very important that your railing frames be designed and built strong enough to support the tension of properly installed cables, which is a load in excess of 300 lbs for each cable. Frames can also be designed to use cables more efficiently, thereby reducing the total quantity of cable assemblies needed and the overall cost.

## Special consideration must be given to the following:

- Size of the end and corner posts
- Spacing of posts from walls
- Spacing between posts and verticals
- Secure attachment of posts to the deck structure and cap rail
- Height of the railing
- Spacing of the cables

For more information on how to properly prepare your railing frames, please see the Frame Requirements section on pages 38 & 39 of this catalog. Visit our website *www.cablerail.com* for the most complete details.



#### **10 YEAR LIMITED WARRANTY**

Feeney, Inc. (Feeney) warrants that all *CableRail* stainless steel cable and connectors shall be free from defects in material and workmanship under normal use, conditions, installation, and maintenance in accordance with product specifications for ten (10) years from date of purchase. The complete warranty is available on our website *www.cablerail.com* 



#### HOW TO ORDER CABLERAIL

- Carefully Review: Read all of the product information provided in this catalog and on our website www.cablerail.com. If you have questions, please call our sales department for assistance, 1-800-888-2418.
- 2) Select Assembly Lengths: Locate the cable termination posts where you will start and end your cables. Straight runs should not exceed 70 feet, and runs with bends (2 bends at most) NOT over 40 feet. Select assemblies that are at least one foot longer than the length of your railing sections.
- 3) Determine Quantities: The number of assemblies depends on your railing design. Remember to space cables no more than 3 inches apart.
- 4) **Check Accessories:** Count all the end caps, protector sleeves, grommets, bushings, beveled washers, and tools you will need.
- 5) Place The Order: Visit an authorized CableRail dealer to purchase items. To locate a dealer in your area, click the dealer locator at <u>www.feeneyinc.com</u> or give us a call.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.CABLERAIL.COM



## CADE RAIL by feeney® Custom Cable Assemblies

#### Architectural Hardware That Anticipates Any Cable Design.

Projects with special installation conditions or design considerations may require certain styles of cable and fittings not addressed by our *CableRail* Standard Cable Assemblies. To fulfill those specific design and function needs, Feeney offers a wide assortment of cables, turnbuckles, terminals, adjusters, and fixed ends for custom assemblies. You can either order individual components and build your own assemblies, or let us fabricate them for you, complete and ready to install.

- Wide selection of cables and fittings to meet any design requirement
- Made from high-quality 316-grade stainless steel with a tumbled satin finish for weathertough durability, low maintenance, and lasting beauty
- Versatile uses include railings, trellises, fences, exteriors, interiors, residential, commercial
- Assemblies may be fabricated at your job site or in our factory, ready to install
- Detail drawings and 3-part specifications available at www.cablerail.com
- Toll-free design assistance and technical support line, 1-800-888-2418
- Product contains recycled materials







## Attaching the Fittings

Fittings can be attached to the cable either at our factory or in the field.

#### Machine Swaging (swaji'ing)

Machine swage fittings are attached to the cable at our factory using a hydraulic cold forming press. The swage shank portion of the fitting is pressed on to the end of the cable and has a uniform hexagonal shape when finished. Assemblies using Machine Swage type fittings are fabricated to your exact lengths in our factory and then shipped ready to install.

#### CableCrimp<sup>™</sup> Hand Swaging

CableCrimp<sup>™</sup> style fittings are attached to the cable by hand in the field using a special CableCrimp<sup>™</sup> Crimper tool (#3742, page 34). After proper crimping, the fitting will display several evenly spaced compression marks where the tool was engaged. Most 1/8" and 3/16" cable fittings are available in CableCrimp<sup>™</sup> styles.

#### NEW! Quick-Connect® Swageless (See pages 28-31)

Quick-Connect<sup>®</sup> style fittings with patented automatic-locking jaws are attached to the cable in the field without any tools. The cable end is simply inserted into the fitting and the spring-loaded one-way jaws grab and lock on. If necessary, a reusable release tool (see page 35) can be used to disengage and remove or readjust the fitting. Available in an assortment of fitting styles.

Important Note: *CableRail* custom cables, fittings, and assemblies are only intended for use on railings, fences, and trellises and should never be used for lifting, hanging, load-bearing, or other potentially dangerous applications.

All of our cables and fittings are manufactured from high-quality 316-grade stainless steel with a tumbled satin finish for weather-tough durability, low maintenance, and lasting beauty.



## 316-GRADE STAINLESS STEEL Cable

The usual choices for railings and architectural applications are uncoated 1/8", 3/16", and 1/4" diameter 1x19 and 7x7 cables of 316-grade stainless steel. The reasons: versatility, aesthetics, low maintenance, longevity, and high abrasion resistance.

Part#	CableØ	Construction
4140	1/8"	1x19
4126	1/8"	7x7
4117	3/16"	1x19
4129	3/16"	7x7
4118	1/4"	1x19
4200	1/4"	7x7

#### **1X19 CONSTRUCTION CABLES**

- 19 individual wires twisted into a single, semi-flexible strand
- Excellent for railings, fences, and trellises with straight runs or slight bends

#### **7X7 CONSTRUCTION CABLES**

- 49 individual wires woven into a flexible strand
- Best for conditions that require tighter bends or for designs where a more woven wire appearance is desired

7x`

Also available: clear and colored vinyl and nylon coated cables and a wide assortment of other stainless, galvanized, and bright steel cables and wire ropes. For details, call our toll-free information line, 1-800-888-2418. 1x19

Photo: Claudio Santini, Mark English, Architect

## Cable Fittings THERE ARE TWO TYPES OF CABLE FITTINGS

#### **1** TENSION ADJUSTMENT FITTINGS (TAF)

- Include Threaded Terminals, Turnbuckles, and Adjusters that are used to tighten the cable lines
- Tension is adjusted by tightening the nut on the Threaded Terminals, spinning the tubular body on the Turnbuckles, or rotating the bolt on the Adjusters
- Tension Adjustment fittings can be paired with either a Fixed End or another Tension Adjustment Fitting

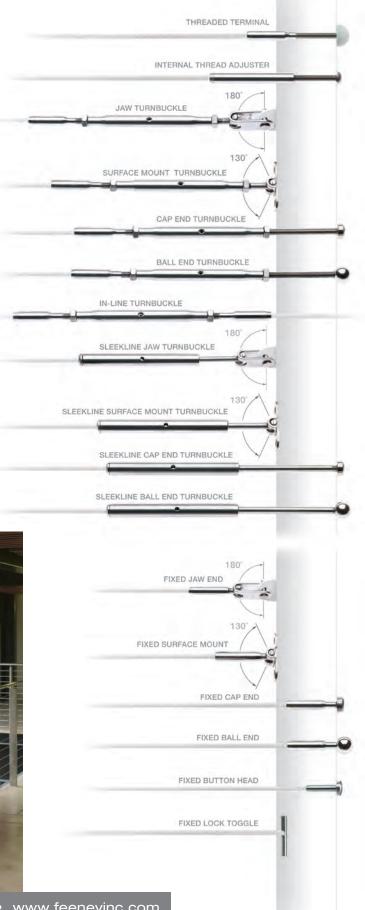
#### 2 FIXED ENDS (FE)

- Non-adjustable end termination fittings, sometimes referred to as "dead ends"
- Have no tensioning capabilities
- Each Fixed End must be paired with at least one Tension Adjustment Fitting

Every cable assembly must have at least one Tension Adjustment Fitting in order to tension the line. The diagram below shows the 3 common fitting positions.







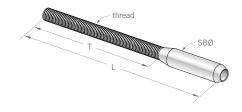
## 316-GRADE STAINLESS STEEL Tension Adjustment Fittings

Stainless steel Threaded Terminals, Turnbuckles, and Adjusters provide tension to the cable lines. Tension is adjusted by tightening the nuts on the Threaded Terminals, spinning the tubular bodies on the Turnbuckles, or rotating the bolt on the Adjusters. Every cable assembly must include at least one Tension Adjustment Fitting.

#### THREADED TERMINAL

- Inserts through a drill hole in the end post and is secured and adjusted with a washer and nuts (sold separately, pages 32 & 33)
- Use beveled washers for angled stair terminations and flat washers (page 33) for added bearing surface on wood posts
- Typically paired with another Threaded Terminal

Part#	Swage	CableØ	Thread	Т	L	SBØ	DrillØ
3168	Μ	1/8"	1/4-20RH	1"	2-1/2"	1/4"	5/16"
3191	Μ	1/8"	1/4-20RH	2-1/4"	4-1/4"	1/4"	5/16"
3193	Μ	1/8"	1/4-20RH	2-3/4"	7-1/2"	1/4"	5/16"
3197	Μ	1/8"	1/4-28RH	2-3/8"	4-1/4"	1/4"	5/16"
3250	Μ	1/8"	1/4-28LH	2-1/2"	3-3/4"	1/4"	5/16"
3157	Μ	3/16"	1/4-20RH	1"	2-5/8"	11/32"	3/8"
3253	Μ	3/16"	1/4-20RH	2-5/8"	4-1/4"	11/32"	3/8"
3256	M	3/16"	1/4-20RH	2-7/8"	7-1/2"	11/32"	3/8"
3198	Μ	3/16"	1/4-28RH	2-1/2"	4-1/4"	11/32"	3/8"
3254	Μ	3/16"	1/4-28LH	2-12"	4-1/4"	11/32"	3/8"
5050	Μ	1/4"	5/16-24RH	2-5/8"	4-3/4"	7/16"	7/16"
3249	M	1/4"	5/16-24LH	2-3/4"	4-3/4"	7/16"	7/16"
3260	С	1/8"	1/4-20RH	2-1/4"	4-1/4"	7/32"	5/16"
3251	С	1/8"	1/4-20RH	2-3/4"	7-1/2"	7/32"	5/16"
3190	С	1/8"	1/4-28RH	2-1/2"	4-1/2"	7/32"	5/16"
3247	С	1/8"	1/4-28LH	2-1/2"	4-1/2"	7/32"	5/16"
3263	С	3/16"	1/4-20RH	2-5/8"	4-7/8"	9/32"	3/8"
3264	С	3/16"	1/4-20RH	2-7/8"	7-1/2"	9/32"	3/8"
3192	С	3/16"	1/4-28RH	2-1/2"	4-3/4"	9/32"	3/8"
3248	С	3/16"	1/4-28LH	2-1/2"	4-3/4"	9/32"	3/8"



#### INTERNAL THREAD ADJUSTER

- Inserts through a drill hole in end post and is secured and adjusted using a bolt and washer (included)
- Use beveled washer (#3791, page 33) for angled stair terminations
- Typically paired with another Internal Thread Adjuster

Part#	Swage	CableØ	Thread	WØ	L close (open)	SBØ	DrillØ
3266-1.5	Μ	1/8"	10-24RH	7/16"	2-3/4" (3-3/4")	1/4"	5/16"
3266-2	M	1/8"	10-24RH	7/16"	3-1/4" (4-1/4")	1/4"	5/16"
3266-3	M	1/8"	10-24RH	7/16"	4-1/4" (5-1/4")	1/4"	5/16"
3267-1.5	Μ	3/16"	1/4-20RH	11/16"	3-1/4" (4-1/4")	11/32"	3/8"
3267-2	M	3/16"	1/4-20RH	11/16"	3-3/4" (4-3/4")	11/32"	3/8"
3267-3	Μ	3/16"	1/4-20RH	11/16"	4-3/4" (5-3/4")	11/32"	3/8"



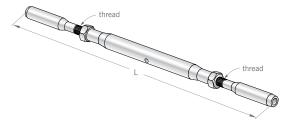
Note on charts: **Drillø** is the recommended drill hole size for attaching the fittings to the end posts. Drill hole sizes for all other intermediate posts may differ. Please call to confirm correct drill sizes.

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#### **IN-LINE TURNBUCKLE**

- Used in the middle of a cable assembly for additional tensioning on long runs or where end tensioning is not feasible or desired
- Can be combined with any Tension Adjustment Fitting or Fixed End

Part#	Swage	CableØ	Thread	L close (open)
3289	Μ	1/8"	1/4-28	7-1/2" (10-1/2")
3731	Μ	3/16"	1/4-28	8-1/2" (11-1/2")
3291	Μ	1/4"	5/16-24	9-1/2" (13-1/4")
3292	С	1/8"	1/4-28	9" (12")
3293	С	3/16"	1/4-28	9-1/2" (12-1/2")



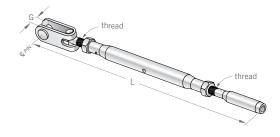


## 316-GRADE STAINLESS STEEL Tension Adjustment Fittings

#### JAW TURNBUCKLE

- Attaches to fixed eyebolts, eyelets, or drilled tabs using a removable clevis pin
- 180° pivoting makes these ideal for angled stair terminations
- Typically paired with a Fixed Jaw End or another Jaw Turnbuckle

Part#	Swage	CableØ	Thread	₽inØ	G	L close (open)	Pin DrillØ
3270	Μ	1/8"	1/4-28	1/4"	5/16"	7-3/4" (10-3/4")	5/16"
3271	Μ	3/16"	1/4-28	1/4"	5/16"	8-1/4" (11-1/4")	5/16"
3332	Μ	1/4"	5/16-24	5/16"	3/8"	9-1/4" (13")	3/8"
3268	С	1/8"	1/4-28	1/4"	5/16"	8-1/2" (11-1/2")	5/16"
3269	C	3/16"	1/4-28	1/4"	5/16"	8-3/4" (11-3/4")	5/16"

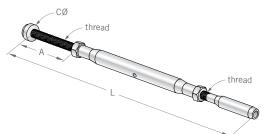


#### **CAP END TURNBUCKLE**

- Inserts through a drill hole in the end post and is secured with a screw-on end cap
- Use beveled washer (#3793) for angled stair terminations and flat washers (page 33) for added bearing surface on wood posts
- Typically paired with a Fixed Cap End or another Cap End Turnbuckle

Part#	Swage	CableØ	Thread	CØ	A* close	L close (open)	DrillØ
3325	M	1/8"	1/4-28	9/16"	1-3/8"	7-3/4" (10-3/4")	5/16"
3326	М	3/16"	1/4-28	9/16"	1-3/8"	8-1/4" (11-1/4")	5/16"
3327	Μ	1/4"	5/16-24	9/16"	3"	10-1/2" (14-1/4")	3/8"
3328	С	1/8"	1/4-28	9/16"	1-3/8"	8-1/2" (11-1/2")	5/16"
3329	С	3/16"	1/4-28	9/16"	1-3/8"	8-3/4" (11-3/4")	5/16"

\* Longer shaft lengths available



Note on charts: **Drillø** is the recommended drill hole size for attaching the fittings to the end posts. Drill hole sizes for all other intermediate posts may differ. Please call to confirm correct drill sizes.

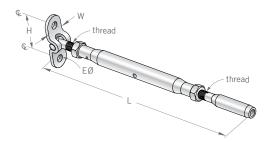




#### SURFACE MOUNT TURNBUCKLE

- Attaches to face of the end post using lag screws or bolts (page 32)
- 130° pivoting allows for angled stair terminations
- Typically paired with a Fixed Surface Mount or another Surface Mount Turnbuckle

Part#	Swage	CableØ	Thread	EØ	Н	W	L close (open)
3278	Μ	1/8"	1/4-28	1/4"	1-5/16"	5/8"	7" (10")
3277	М	3/16"	1/4-28	1/4"	1-5/16"	5/8"	7-1/2" (10-1/2")
3338	Μ	1/4"	5/16-24	5/16"	1-1/2"	3/4"	8-1/4" (12")
3275	С	1/8"	1/4-28	1/4"	1-5/16"	5/8"	7-3/4" (10-3/4")
3276	С	3/16"	1/4-28	1/4"	1-5/16"	5/8"	8" (11")



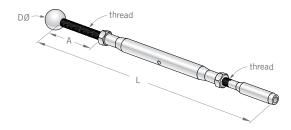
#### **BALL END TURNBUCKLE**

- Inserts through a drill hole or slot in end post and is secured with a screw-on ball
- Ball pivots to allow angled stair terminations without beveled washers
- Typically paired with a Fixed Ball End or another Ball End Turnbuckle

Part#	Swage	cableØ	Thread	DØ	A* close	L close (open)	DrillØ**
3340	Μ	1/8"	1/4-28	5/8"	1-1/4"	7-1/2" (10-1/2")	5/16"
3341	М	3/16"	1/4-28	5/8"	1-1/4"	8" (11")	5/16"
3342	Μ	1/4"	5/16-24	5/8"	2-7/8"	10-1/4" (14")	3/8"
3343	С	1/8"	1/4-28	5/8"	1-1/4"	8-1/4" (11-1/4")	5/16"
3344	C	3/16"	1/4-28	5/8"	1-1/4"	8-1/2" (11-1/2")	5/16"

\* Longer shaft lengths available

\*\* Ball can be slightly recessed into post by counterboring with 9/16" drill



# feeneyarchitectura

## 316-GRADE STAINLESS STEEL Tension Adjustment Fittings

#### THE SLEEKLINE SERIES TURNBUCKLES

have a swage sleeve hidden inside the body allowing a shorter turnbuckle design with clean lines and no exposed threads or swage ends. Sleekline Turnbuckles are best suited for attaching to the cable in the field using the CableCrimp<sup>™</sup> style fittings and a CableCrimp<sup>™</sup> Crimper tool (#3742, page 34).

#### SLEEKLINE JAW TURNBUCKLE

- Attaches to eyebolts, eyelets, or drilled tabs using a removable clevis pin
- 180° pivoting is ideal for angled stair terminations
- Typically paired with a Fixed Jaw End or another Sleekline Jaw Turnbuckle

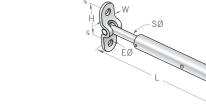
Part#	Swage	CableØ	₽inø	TL	G	SØ	L close (open)	Pin DrillØ
3295	M	1/8"	1/4"	3/4"	5/16"	1/4"	6-3/8" (8")	5/16"
3296	Μ	3/16"						
3297	С	1/8"						
3299	С	3/16"						
	G.P.M	G CL		S L	8		0	

Note on charts: **DrillØ** is the recommended drill hole size for attaching the fittings to the end posts. Drill hole sizes for all other intermediate posts may differ. Please call to confirm correct drill sizes.

#### SLEEKLINE SURFACE MOUNT TURNBUCKLE

- Attaches to face of the post using lag screws or bolts (page 32)
- 130° pivoting allows for angled stair terminations
- Typically paired with a Fixed Surface Mount or Sleekline Surface Mount Turnbuckle

Part#	Swage	CableØ	ЕØ	Н	W	SØ	L close (open)
3309	Μ	1/8"	1/4"	1-5/16"	5/8"	1/4"	5-5/8" (7-1/4")
3310	М	3/16"					
3311	С	1/8"					
3312	С	3/16"					



#### SLEEKLINE CAP END TURNBUCKLE

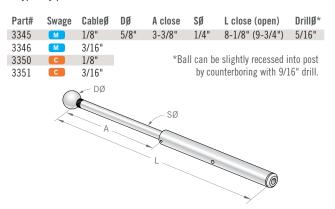
- Inserts through a drill hole in the end post and is secured with a screw-on end cap
- Use beveled washer (#3793) for angled stair terminations and flat washers (page 33) for added bearing surface on wood posts
- Typically paired with a Fixed Cap End or another Sleekline Cap End Turnbuckle

Part#	Swage	CableØ	CØ	A close	SØ	L close (open)	DrillØ
3300	Μ	1/8"	9/16"	3-1/2"	1/4"	8-1/4" (9-7/8")	5/16"
3302	M	3/16"					
3305	С	1/8"					
3282	С	3/16"					
		CØ		SØ	0	C	

M Machine Swage C CableCrimp<sup>™</sup> Hand Swage See pages 32-35 for accessory items and tools

#### SLEEKLINE BALL END TURNBUCKLE

- Inserts through a drill hole or slot in the end post and is secured with a screw-on ball
- Ball pivots to allow angled stair terminations without beveled washers
- Typically paired with a Fixed Ball End or another Sleekline Ball End Turnbuckle



## 316-grade stainless steel Fixed Ends

These stainless steel, non-adjustable end termination fittings have no tensioning capability. Therefore, each must be paired with at least one of the Tension Adjustment Fittings.

#### **FIXED JAW END**

- Attaches quickly to eyebolts, eyelets, or drilled tabs using a removable clevis pin
- 180° pivoting makes these ideal for angled stair terminations
- Typically paired with a Jaw Turnbuckle

Part#	Swage	CableØ	₽inØ	TL	G	L	Pin DrillØ
3288	Μ	1/8"	1/4"	3/4"	5/16"	2-7/8"	5/16"
3331	Μ	3/16"	1/4"	3/4"	5/16"	3"	5/16"
3336	Μ	1/4"	5/16"	1"	3/8"	4-1/8"	3/8"
*3279	С	1/8"	1/4"	3/4"	5/16"	3-3/4"	5/16"
3280	С	3/16"	1/4"	3/4"	5/16"	3-3/4"	5/16"

\* #3279 same as #3280 but includes insert sleeve for crimping onto 1/8" cable

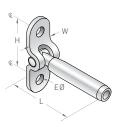
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#### FIXED SURFACE MOUNT

- Attaches to the face of the end post using lag screws or bolts (page 32)
- 130° pivoting allows for easy angled stair terminations
- Typically paired with a Surface Mount Turnbuckle

Part#	Swage	CableØ	EØ	Н	W	L
3281	Μ	1/8"	1/4"	1-5/16"	5/8"	2-1/8"
3284	Μ	3/16"	1/4"	1-5/16"	5/8"	2-1/4"
3337	Μ	1/4"	5/16"	1-1/2"	3/4"	3-1/4"
*3333	С	1/8"	1/4"	1-5/16"	5/8"	3"
3334	С	3/16"	1/4"	1-5/16"	5/8"	3"

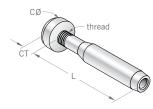
\* #3333 same as #3334 but includes insert sleeve for crimping onto 1/8" cable



#### FIXED CAP END

- Inserts through a drill hole in the end post and is secured with a screw-on end cap
- Use beveled washers (#3793) for angled stair terminations and flat washers
- (page 33) for added bearing surface on wood postsTypically paired with a Cap End Turnbuckle

Part#	Swage	CableØ	Thread	CØ	CT	L	DrillØ
3315	Μ	1/8"	1/4-28RH	9/16"	5/16"	1-3/8"	5/16"
3316	Μ	3/16"	1/4-28RH	9/16"	5/16"	1-7/8"	3/8"
3317	Μ	1/4"	5/16-24RH	9/16"	5/16"	2-1/8"	7/16"
3318	С	1/8"	1/4-28RH	9/16"	5/16"	2"	5/16"
3319	C	3/16"	1/4-28RH	9/16"	5/16"	2-3/8"	3/8"



Machine Swage



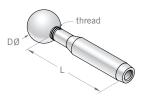
#### **FIXED BALL END**

Inserts through a drill hole or slot in the end post and is secured with a screw-on ball

- Ball pivots to allow angled stair terminations without beveled washers
- Typically paired with a Ball End Turnbuckle

Part#	Swage	CableØ	Thread	DØ	L	DrillØ*
3352	M	1/8"	1/4-28RH	5/8"	1-1/4"	5/16"
3353	M	3/16"	1/4-28RH	5/8"	1-3/4"	3/8"
3354	M	1/4"	5/16-24RH	5/8"	2"	7/16"
3355	С	1/8"	1/4-28RH	5/8"	1-7/8"	5/16"
3356	C	3/16"	1/4-28RH	5/8"	2-1/4"	3/8"

\* Ball can be slightly recessed into post by counterboring with 9/16" drill.



#### FIXED BUTTON HEAD

- Single piece fitting with a non-removable, low-profile rounded head
- Fits into a hole drilled through the end post, and the head rests against the outside face of the post
- Use beveled washers (#3791 for 1/8" and #3793 for 3/16") for angled stair terminations and flat washers (page 33) for added bearing surface on wood posts
- Typically paired with another Fixed Button Head plus an In-Line Turnbuckle

Part#	Swage	CableØ	CØ	CT	L	DrillØ
3287	M	1/8"	7/16"	1/8"	1"	9/32"
3240	M	3/16"	1/2"	1/8"	1-1/8"	3/8"

#### **FIXED LOCK TOGGLE**

- Used on tubular metal end posts where the design only allows for penetration of one side of the post
- The fitting passes through a drill hole and toggles into a locked position inside the post, leaving no exposed hardware
- Will accommodate angled stair conditions without beveled washers
- Typically paired with another Fixed Lock Toggle plus an In-Line Turnbuckle







Note on charts: DrillØ is the

recommended drill hole size

correct drill sizes.

for attaching the fittings to the

end posts. Drill hole sizes for all other intermediate posts may differ. Please call to confirm



# INTRODUCING OUR *NEW* GENERATION OF Quick-Connect® cable hardware



We've taken our patented automatic-locking-jaw design from our original Quick-Connect<sup>®</sup> fitting and applied it to an entire line of cable end fittings. Now you can select from a wide variety of sleek and versatile cable end fittings that offer the flexibility of assembling cables in the field and the simplicity, speed, and gripping power of our Quick-Connect<sup>®</sup> jaws: no more cumbersome crimp tools or time consuming wedge-type compression fittings. Simply trim your cable to length, push the end into the Quick-

Connect<sup>®</sup> fitting, and the spring-loaded jaws automatically engage. You're ready to go! Made from marine-grade 316 stainless steel for weather-tough durability, low maintenance, and lasting beauty. Fittings also come with a silicone protection seal pre-inserted into the end, providing added protection against dirt and debris entering the body of the fitting. If necessary, a reusable release tool is available to disengage and remove or readjust the fitting (see pg 35).

#### There are 2 types of Quick-Connect® fittings

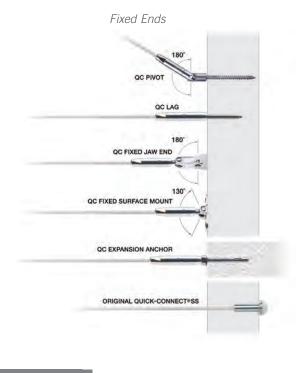
#### **1** TENSION ADJUSTMENT FITTINGS

- Include Threaded Terminals, Turnbuckles, Adjusters, and Swivel fittings that are used to tighten the cable lines
- Tension is adjusted by tightening the nut on the Threaded Terminals, spinning the tubular body on the Turnbuckles and Swivel fittings, or rotating the bolt on the Adjusters
- Tension Adjustment fittings can be paired with either a Fixed End or another Tension Adjustment Fitting

#### **2** FIXED ENDS

- Non-adjustable end termination fittings, sometimes referred to as "dead ends"
- Have no tensioning capabilities
- Each Fixed End must be paired with at least one Tension Adjustment Fitting









Insert cable into fitting



Jaws lock automatically

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## 316-GRADE STAINLESS STEEL Quick-Connect<sup>®</sup> Fixed End Fittings

#### THE ORIGINAL! QUICK-CONNECT®SS

- Fits into a hole drilled in end post, and the lip rests against the outside post face
- Design allows the cable to pass entirely through the fitting in one direction only; any excess cable is trimmed
- Use beveled washers for angled stair termination and flat washers (page 33) for added bearing surface on wood posts
- Exposed end is covered with colored or stainless End Caps (page 33)
- Can be paired with any Tension Adjustment Fitting

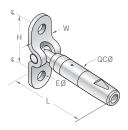
3146         1/8"         5/8"         3/8"         1-1/8"         3/8"           3147         3/16"         3/4"         17/32"         1-5/8"         9/16"           2148         1/4"         2/4"         17/22"         1-5/8"         9/16"	Part#	CableØ	CØ	BØ	L	DrillØ	
	3146	1/8"	5/8"	3/8"	1-1/8"	3/8"	
21/0 1//1 2//1 17/20 1 5/0 0/16	3147	3/16"	3/4"	17/32"	1-5/8"	9/16"	
3140 1/4 3/4 1//32 1-3/0 3/10	3148	1/4"	3/4"	17/32"	1-5/8"	9/16"	



#### QUICK-CONNECT<sup>®</sup> FIXED SURFACE MOUNT

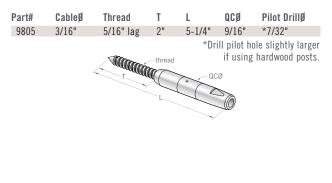
- Attaches to the face of a wall or post using screws or bolts (pg 32)
- 130° pivoting allows for easy angled stair terminations
- Typically paired with a Quick-Connect® Surface Mount Turnbuckle

Part#	CableØ	EØ	Н	W	L	QCØ	
9903	1/8"	1/4"	1-5/16"	5/8"	2-1/2"	7/16"	
9803	3/16"	5/16"	1-1/2"	3/4"	3-1/4"	9/16"	



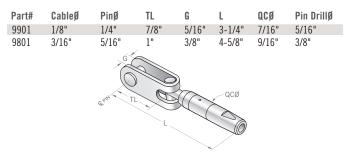
#### **QUICK-CONNECT® LAG**

- Screws into the face of a wood post or wall using a hanger bolt with lag thread (included)
- Can be paired with any Tension Adjustment Fitting



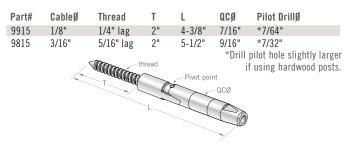
#### QUICK-CONNECT<sup>®</sup> FIXED JAW

- Attaches to eyebolts, eyelets, or drilled tabs using a removable clevis pin
- 180° pivoting make these ideal for angled stair terminations
- Typically paired with a Quick-Connect® Jaw Turnbuckle



#### **QUICK-CONNECT® PIVOT**

- Screws into the face of a wood post or wall using a hanger bolt with lag thread (included)
- 180° pivoting allows for angled stair terminations
- Typically paired with a Quick-Connect® Pivot Swivel Turnbuckle



#### **QUICK-CONNECT® EXPANSION ANCHOR**

- Combines a ¼" diameter threaded expansion anchor (washer & nut included) with a Quick-Connect<sup>®</sup> body
- Attaches to concrete or masonry walls
- Can be paired with any Tension Adjustment Fitting

Part#	CableØ	Thread	Т	L	QCØ	DrillØ
9906	1/8"	1/4-20	1-1/2"	4-1/8"	7/16"	1/4"



CableRail : Custom

feeneyarchite

## 316-GRADE STAINLESS STEEL Quick-Connect<sup>®</sup> Tension Adjustment Fittings

#### QUICK-CONNECT® THREADED TERMINAL

- Inserts through a drill hole in the post and is secured and adjusted with a washer nut (sold separately, page 32)
- Use beveled washers for angled stair terminations and flat washers (pg 33) for added bearing surface on wood posts
- Typically paired with another Quick-Connect<sup>®</sup> Threaded Terminal but can be paired with any other Fixed End or Tension Adjustment Fitting

Part#	CableØ		Т	L	QCØ	DrillØ	
9904	1/8"	1/4-20	5"	7-3/8"	7/16"	*5/16"	
9804	3/16"	5/16-24	5"	7-3/8"	9/16"	*7/16"	

\*May counterbore with slightly larger diameter drill to embed  $\mathsf{Quick}\text{-}\mathsf{Connect}^{\otimes}$  body into post

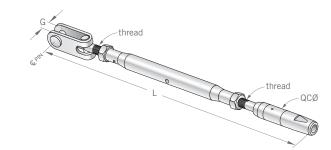


#### **QUICK-CONNECT® JAW TURNBUCKLE**

- Attaches to eyebolts, eyelets, or drilled tabs using a removable clevis pin
- 180° pivoting make these ideal for angled stair terminations
- 3-1/4" of adjustability allows for maximum cable run lengths

Typically paired with a Quick-Connect<sup>®</sup> Fixed Jaw or another Jaw Turnbuckle

Part#	CableØ	Thread	Pin∅	G	L closed (open)	QCØ	Pin DrillØ
9900	1/8"	1/4-28	1/4"	5/16"	8-1/2" (11-3/4")	7/16"	5/16"





#### QUICK-CONNECT® INTERNAL THREAD ADJUSTER

- Inserts through a drill hole in the post and is secured and adjusted with a square drive bolt and washer (included)
- Use beveled washer (page 33) for angled stair terminations
- Typically paired with another Quick-Connect<sup>®</sup> Internal Thread Adjuster but can be paired with any other Fixed End or Tension Adjustment Fitting

Part#	CableØ	Thread	WØ	L closed (open)	QCØ	DrillØ
9907	1/8"	1/4-20	11/16"	2-3/4" (3-1/2")	7/16"	*5/16"
9908	1/8"	1/4-20	11/16"	3-1/4" (4")	7/16"	*5/16"
9909	1/8"	1/4-20	11/16"	4-1/4" (5")	7/16"	*5/16"
9807	3/16"	5/16-18	3/8"	3-1/4" (4")	9/16"	*7/16"

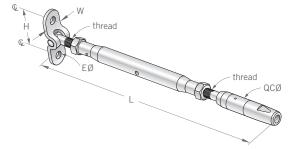
\*May counterbore with slightly larger diameter drill to embed  $\mathsf{Quick}\text{-}\mathsf{Connect}^{\otimes}$  body into post



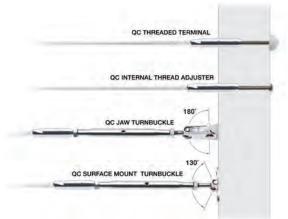
#### QUICK-CONNECT<sup>®</sup> SURFACE MOUNT TURNBUCKLE

- Attaches to the face of a wall or post using screws or bolts (page 32)
- 130° pivoting allows for easy angled stair terminations
- 3-1/4" of adjustability allows for maximum cable run lengths
- Typically paired with a Quick-Connect<sup>®</sup> Fixed Surface Mount of another Surface Mount Turnbuckle

Part#	CableØ	Thread	ЕØ	Н	W	L closed (open)	QCØ
9902	1/8"	1/4-28	1/4"	1-5/16"	5/8"	7-3/4" (11")	7/16"



#### Tension Adjustment Fittings



feeneyarchitec

## 316-GRADE STAINLESS STEEL Quick-Connect® Tension Adjustment Fittings

#### THE SWIVEL LINE OF TURNBUCKLES

have a special swiveling body that's integrated with the Quick-Connect® fitting creating a shorter overall turnbuckle design with a sleek apperaance and fewer exposed threads. Machined flats allow wrenches to securely grip and spin the body to adjust tension without marring the polished surface. Swivel turnbuckles are perfect for short to medium length cable runs.

#### QUICK-CONNECT® LAG SWIVEL TURNBUCKLE

- Screws into the face of a wood post or wall using a hanger bolt with lag thread (included)
- Typically paired with a Quick-Connect<sup>®</sup> Lag or another Quick-Connect<sup>®</sup> Lag Swivel Turnbuckle

Part#	CableØ	Thread	T	L closed(open)	QCØ	DrillØ
9810	3/16"	5/16" lag	1-3/4"	5-7/8" (6-7/8")	9/16"	*7/32"
	4	T	thread			ghtly larger wood posts.

#### QUICK-CONNECT® PIVOT SWIVEL TURNBUCKLE

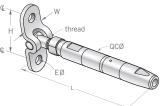
- Screws into the face of a wood post or wall using a hanger bolt with lag thread (included)
- 180° pivoting allows for angled stair terminations
- Typically paired with a Quick-Connect<sup>®</sup> Pivot or another Quick-Connect<sup>®</sup> Pivot Swivel Turnbuckle

Part#	CableØ	Thread	т	L closed(open)	QCØ	DrillØ
9916	1/8"	1/4" lag	2"	7" (7-3/4")	7/16"	*7/64"
9816	3/16"	5/16" lag	2"	8" (9")	9/16"	*7/32"
	Man	thread				slightly larger
~			-Pi	ivot point	using nai	rdwood posts.
			$\zeta$			
			_	AT	QCØ	

#### QUICK-CONNECT<sup>®</sup> SURFACE MOUNT SWIVEL TURNBUCKLE

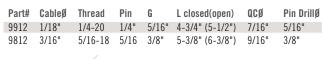
- Attaches to the face of a wall or post using screws or bolts (pg 32)
- 130° pivoting allows for angled stair terminations
- Typically paired with a Quick-Connect<sup>®</sup> Fixed Surface Mount or another Quick-Connect<sup>®</sup> Surface Mount Swivel Turnbuckle

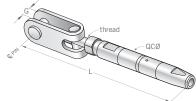
Part#	CableØ	Thread	EØ	H	W	L closed (open)	QCØ
9913	1/8"	1/4-20	1/4"	1-5/16"	5/8"	4" (4-3/4")	7/16"
9813	3/16"	5/16-18	5/16"	1-1/2"	3/4"	4-1/2" (5-1/2")	9/16"
		_					



#### QUICK-CONNECT<sup>®</sup> JAW SWIVEL TURNBUCKLE

- Attaches to eyebolts, eyelets or drilled tabs using a removable clevis pin
- 180° pivoting allows for angled stair terminations
- Typically paired with a Quick-Connect<sup>®</sup> Fixed Jaw End or another Quick-Connect<sup>®</sup> Jaw End Swivel Turnbuckle





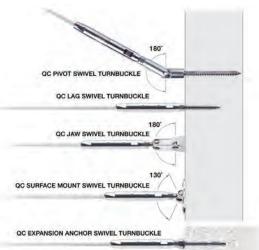
#### QUICK-CONNECT® EXPANSION ANCHOR SWIVEL TURNBUCKLE

- Attaches to concrete or masonry walls or posts using a 1/4 in. threaded expansion anchor (included with washer & nut)
- Typically paired with a Quick-Connect<sup>®</sup> Expansion Anchor or another Quick-Connect<sup>®</sup> Expansion Anchor Swivel Turnbuckle

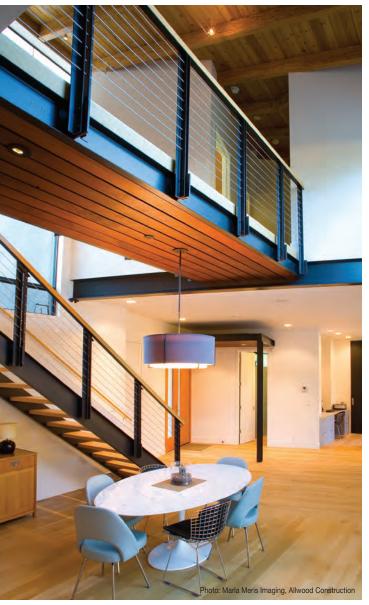
Part#	CableØ	Thread	Т	L closed(open)	QCØ	DrillØ	
9914	1/8"	1/4-20	1-1/2"	4-1/4" (5")	7/16"	1/4"	



Swivel Tension Adjustment Fittings



## Nuts & Bolts





#### BUTTON HEAD LAG SCREWS (316 Stainless)

Size & Length

For attaching Surface Mount Fittings to wood posts

1/4" x 2"

Requires S2 square-drive bit

Part# 7918

#### HEX HEAD LAG SCREWS (8-18 Stainless)

For attaching Surface Mount Fittings to wood posts
Part# Size & Length
3183 1/4" x 2"

#### HEX HEAD BOLTS (316 Stainless)

For attaching Surface Mount Fittings to metal posts

Drill and tap m	netal for 1/4-2	20RH threads

 Part#
 Thread & Length

 3322
 1/4-20RH x 3/4"



#### SNUG-GRIP® WASHER NUTS (316 Stainless)

- Option for securing Threaded Terminal fittings to posts
- It's a washer, retaining ring, and lock nut wrapped into one fitting
- Cable tension is adjusted by spinning the nut, and special Snug-Grip<sup>®</sup> threads help prevent loosening
- The raised lip allows for easy snap-on attachment of Colored and Stainless End Caps

Part#	Thread
3370	1/4-20RH
3371	5/16-24RH

#### HEX NUTS (316 Stainless)

- Option for securing Threaded Terminal fittings to posts
- Tension is adjusted by spinning the nut
- Typically used in conjunction with Cap Nuts to provide a finished detail

Part#	Thread	
3143	1/4-20RH	
3178	1/4-28RH	
3243	1/4-28LH	
3244	5/16-24RH	
3242	5/16-24LH	

#### NYLON INSERT LOCKNUTS (316 Stainless)



Option for securing Threaded Terminal fittings to posts

- Tension is adjusted by spinning the nut, and an integrated nylon insert prevents the nut from loosening
- Typically paired with a Retaining Washer (#7070) and covered with a Colored End Cap

Part#	Thread
3121	1/4-20RH
3175	1/4-28RH

#### CAP NUTS (316 Stainless)

Option for finishing and locking hex nuts on Threaded Terminal fittings

Part#	Thread	
3144	1/4-20RH	
3179	1/4-28RH	
3188	5/16-24RH	

#### PROTECTOR SLEEVES (316 Stainless)

- (Wood posts only) For protecting corner and stair transition posts from cable abrasion
- Use with 1/8" and 3/16" diameter cable
- Fits 1/4" diameter drill holes

Part#	Size & Length	Flange
3210	1/4" x 7/8"	1/2"

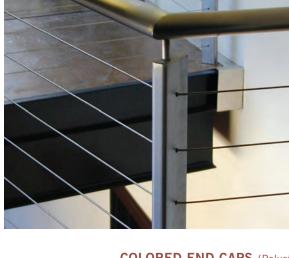
#### SHOULDER EYEBOLT (316 Stainless)

- Option for attaching Jaw Fittings to posts
- Includes washer and hex nut for securing to post

Part# Size & Length 5057 5/16-18RH x 4"

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#### COLORED END CAPS (Polyethylene)

- Option for covering and finishing the exposed ends of Threaded Terminal nuts and Quick-Connect®SS fittings
- Fits Washer Nuts, Retaining Washers, and Quick-Connect®SS fittings
- Size 3/4"OD x 7/16"H

Part#	Color
7071	Black
7072	White
7073	Brown
7074	Gray
7075	Silver
7076	Taupe
7077	Bronze
7078	Green
7079	Cream



#### END CAPS (316 Stainless)

- Decorative option for covering and finishing the exposed ends of Quick-Connect®SS and Snug-Grip® Washer Nuts
- Will not fit onto Retaining Washers
- Size 3/4"0D x 3/8"H

Part#	Style	
3372	Dome	
3373	Crown	
3374	Chamfer	



#### **ISOLATION BUSHINGS** (Engineered Polymer)

- For eliminating direct contact of dissimilar metals to minimize electrolysis when attaching cables and fittings to metal posts in areas with salt air or similar harsh elements
- Highly resistant to abrasion and UV degradation
- Wide operating temperature range, -40°F to +266°F
- Must use silicone sealant (not included) to secure bushings in posts

Part#	Size	*HoleØ
1101	3/16"ID x 1/4"OD, 3/8" flange	1/4"
1102	1/4"ID x 5/16"OD, 1/2" flange	5/16"
1104	9/32"ID x 23/64"OD, 19/32" flange	23/64"
1115	5/16"ID x 3/8"0D, 9/16" flange	3/8"
1100	3/8"ID x 15/32"OD, 11/16" flange	15/32"
1105	7/16"ID x 17/32"OD, 3/4" flange	17/32"
1118	15/32"ID x 35/64"OD, 25/32" flange	35/64"
1103	35/64"ID x 5/8"0D, 55/64" flange	5/8"

\*Note: HoleØ is the required post hole size after any galvanized, paint, or powder coatings are applied to the metal frame. Metal frames are all different, so please call to confirm correct bushing sizes and corresponding hole diameters for your frame condition and cable fitting styles. Also see the Accessories section on our website: *www.cablerail.com* 



#### **RETAINING WASHERS** (304 Stainless) For attaching Colored End Caps over the Hex Nuts and Nylon Insert Lock Nuts

Raised lip allows End Caps to easily snap and lock-on Part# Size x OD

7070	1/4" x 5/8"

#### FLAT WASHERS (316 Stainless)

For providing additional bearing surface to end fittings on wood posts

Part#	Size x OD	
3180	1/4" x 11/16"	
3181	1/4" x 1"	
3231	5/16" x 3/4"	
3378	3/8" x 1"	
3177	9/16" x 1"	

#### FLAT WASHERS (Nylon)

For protecting metal posts from nut abrasion and electrolysis

Part#	Size x OD
3375	1/4" x 3/4"
3377	5/16" x 3/4"
3376	3/8" x 3/4"
3379	9/16" x 3/4"

#### BEVELED WASHERS (316 Stainless)

- For providing a flat bearing surface when attaching fittings at angled stair terminations
- 32° angle to fit most stairs

Part#	Size x OD
3791	1/4" x 1/2"
3799	9/32" x 3/4"
3793	3/8" x 5/8"
3792	3/8" x 3/4"
3798	9/16" x 3/4"





## Helpful Tools

#### **DRILL BITS**

For drilling cable and fitting attachment holes in posts

Part#	Size x Length
3201	1/4" x 6"
3203	5/16" x 6-1/2"
3217	3/8" x 6-1/2"
3218	7/16" x 7-1/2"
3225	9/16" x 6"
3204	9/16" x 6" (spade bit, for wood only)

#### **BI-METAL SAW BLADES**

Option for trimming excess threads on Threaded Terminal fittings

Part#	Description
3199	12" Hacksaw blade
5065	6" Reciprocating Saw blade

#### **ABRASIVE DISKS**

For trimming and touching-up exposed cable and threads Fits  $4-1/2^{"}$  electric grinders with 7/8" arbor holes

Fits 4-1/2" e	ectric grinders with 7/8" arbor holes
Part#	Description
3219	Cut-Off Disk (Designed for cutting stainless)
3220	Grinding Disk

#### **CABLECRIMP<sup>™</sup> CRIMPER**

For attaching fittings in th	g 1/8" and 3/16" CableCrimp™ style hand crimp	
intungs in th	c liciu	
Part#	Description	

	2000000
3742	Double-cavity x 20" long

#### **CABLE CUTTERS**

	For	shearing	stainless	steel	cables
--	-----	----------	-----------	-------	--------

Part#	Cable Size	Length	
2972-pkg	Up to 1/8"	7-1/2"	
2971	Up to 1/4"	13"	















#### HANGER BOLT INSTALLATION TOOL

■ For easily installing hanger bolts used in the Quick-Connect<sup>®</sup> Lag and Pivot fittings (pgs 29 & 31)

Part#	Internal Thread	Length
3988	1/4-20RH	7/8"
3989	5/16-18RH	7/8"

#### **QUICK-CONNECT® RELEASE TOOLS**

For disengaging and removing or readjusting Quick-Connect<sup>®</sup> fittings

Part#	Description
3128	for 1/8" Quick-Connect®, Reusable
3158	for 3/16" Quick-Connect®, Reusable





#### CABLE LACING NEEDLES

For quickly lacing cable ends through posts without snagging

Part#	Cable Size	Length	
3221	1/8"	4-1/2"	
3222	3/16"	4-1/2"	
3223	1/4"	4-1/2"	



#### FEENEY STEELRENEWAL™ + STEELPROTECT™

This combination pack puts together 2 products that make it easier for customers to clean and maintain stainless steel surfaces, including CableRail!

Part#	
5064	

Description

Feeney SteelProtect<sup>™</sup> (100 ml Bottle) Feeney SteelProtect<sup>™</sup> (100 ml Bottle)



#### CABLERAIL ACCESSORY KITS

- Handy kit for installing and maintaining CableRail cables and fittings
- Kit includes: Feeney SteelRenewal<sup>™</sup> + Feeney SteelProtect<sup>™</sup> Combo Pack, Lacing Needle, Quick-Connect<sup>®</sup> Release Tool

Part#	For Cable Size
CR-KIT	1/8"
CR-KIT 3-16	3/16"





#### **TENSION GAUGE**

Easy to use tool for checking cable tension				
Part#	For Cable Sizes			
6004-pkg	1/8", 3/16", & 1/4"			

#### <u>1-800-88</u>8-2418 • www.feeneyinc.com

## Custom Cable Assemblies Are Easy To Install

Railing infill is the most common use of custom cable assemblies, and the installation steps outlined below are directed to that usage. However, the basic concepts would apply to both fence and trellis projects as well. For more comprehensive installation information, please visit our website *www.cablerail.com*, or call our toll-free line at 1-800-888-2418 for assistance.

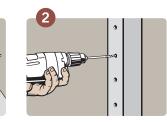


Termination

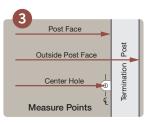
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Measure Length

assemblies. See railing frame recommendations on pages 38 & 39.



Mark and drill holes in all posts. Hole sizes will vary depending on the size and style of cable fittings used.



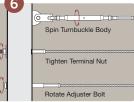
Determine the lengths of your cable assemblies by measuring the distance between the "measure points" on the termination posts. The "measure point" depends on the style of fittings used (see Fitting Measure Point chart below).



Call to ask questions and to order the cable assemblies and accessories: toll-free 1-800-888-2418 or 1-510-893-9473.



Lace the cable assemblies through your intermediate posts and attach the end fittings to the termination posts. See drawings on page 37 for details on angled stair terminations.



Tighten the cables using the Tension Adjustment Fittings. Depending on the fittings used, trim any excess material and apply caps to finish the ends. A tension gauge may be used to check uniform tension.

Securely fasten all

run lengths

posts and cap rails

Carefully plan all termination and

corner posts for proper clearance,

positioning, and maximum cable

Measure Point for Each Type of Fitting			
Fitting Type	Post Face	Outside Post Face	Center Hole
All Surface Mount style turnbuckles	Х		
Fixed Surface Mounts	Х		
Fixed Lock Toggles	Х		
Quick-Connect® Pivot & Lag fittings	Х		
Quick-Connect® Expansion Anchors	Х		
Threaded Terminals		Х	
Internal Thread Adjusters		Х	
All Cap End style turnbuckles		Х	
All Ball End style turnbuckles		Х	
Fixed Cap Ends		Х	
Fixed Ball Ends		Х	
Quick-Connect <sup>®</sup> SS		Х	
Fixed Button Heads		Х	
All Jaw style turnbuckles			Х
Fixed Jaw Ends			Х

#### CONSTRUCTION CHECKLIST

- Space cables no more than 3 inches apart
- Space posts/verticals no more than 3 feet apart
- Observe minimum end/corner post sizes shown on page 38

#### **IMPORTANT NOTES**

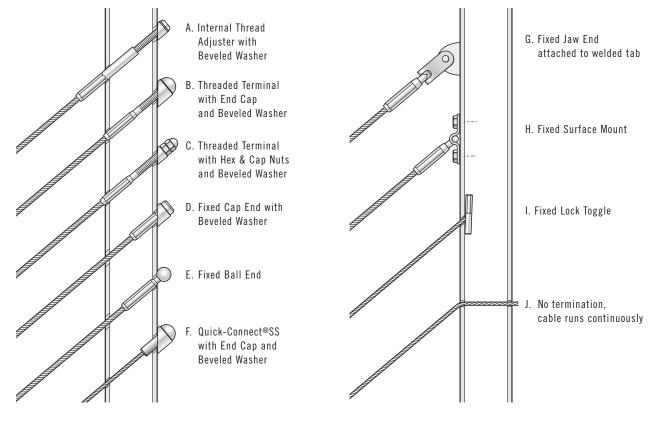
Since building codes vary by state, county, and city, our recommendations may not comply with code requirements in all areas. Always consult with your local building department before starting your project.

- To ensure proper tensioning, straight runs of cable (no turns, dips, or rises) should include a Tension Adjustment Fitting at least every 50 feet
- Runs with bends or corners should have a Tension Adjustment Fitting at least every 40 feet or after every second corner bend (whichever distance is shorter)
- CableRail cable assemblies and fittings are designed for use on railings, fences, and trellises only. They should never be used for lifting, hanging, or high load applications.



### Typical Angled Terminations

Note: These attachment details also apply to the corresponding turnbuckles.



### A FEW WORDS ABOUT STAINLESS STEEL

The protective chromium oxide film on the surface of stainless steel gives it superior corrosion resistance. Properly maintained stainless steel provides excellent luster, strength, and durability. In most applications, stainless steel will not rust or stain even after years of service, but it is NOT rust or stain proof. When stainless comes in contact with chloride salts, sulfides, or other rusting metals, it can discolor or even rust and corrode. With proper care and maintenance, however, stainless steel can remain beautiful and functional for years to come, even when it is exposed to marine environments, polluted surroundings, salted highways, or other corrosive elements. For complete care and maintenance instructions, please visit our website *www.cablerail.com* 



# Frames need to support the tension of properly installed cables

They need to be designed and built strong enough to support a load of at least 300 lbs for each cable. Frames can also be designed to use cables more efficiently, thereby reducing the total quantity of cable assemblies needed and the overall cost. Below are some basic guidelines to help you prepare railing frames for cable infill. We also encourage you to carefully review all of the cable and fitting detail pages and installation pages, and if you have any questions, please call us at 1-800-888-2418 for assistance.

### Minimum Sizes for All Corner and End Posts

All other posts should be sized as required for cap rail support strength or for code.



3-1/2" wide, 5-1/2" thick



ANGLE IRON 2" wide. 1/2" thick



EXTRA STRONG PIPE 1-1/2" I.D., 1-7/8" O.D.



SQUARE TUBE 2" wide. 1/4" wall

### The Basic Frame Design

### Spacing From Walls

Unless using Surface Mount or Jaw type cable fittings, always set end posts 3 to 4 inches away from the wall face to allow access for attaching cable end fittings through the post.

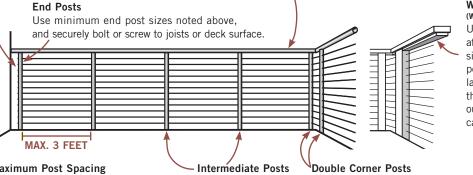
Cap Rail

Always include a strong, rigid cap rail that is securely fastened to all posts. Cap size is based on load strength needs and local code requirements. Set railing height per local code.

### **Cable Spacing** Maximum 3 inches apart.

Wood Blocking

(WOOD FRAMES ONLY) Underneath the cap rail, attach minimum 1" x 4" size wood blocking between posts to provide additional lateral reinforcement so that the posts will not pull out of plumb when the cables are tensioned.



If possible, use double corner posts to allow the cable to run continuously through the corners without terminating. Securely bolt or screw posts to joists or deck surface and use minimum corner post sizes noted above.

### Maximum Post Spacing

Space all posts and vertical spacers (see adjacent page) a maximum of 3 feet apart to minimize any deflection that may occur if the cables are ever forced apart.

Size all intermediate posts as required for cap rail support strength or for code.

### 1-800-888-2418 • www.feeneyinc.com



### And Some Other Options

### Vertical Spacers (OPTIONAL)

Slender spacers may be used instead of larger intermediate posts to achieve a more open railing design. These are non-structural members and are only intended to maintain cable spacing and minimize deflection. Examples are  $2" \times 2"$  wood strips, 1" metal tubing, or 1/4" flat bar. Attach to the cap rail and either the foot rail, deck surface, or joists.

Cable Spacing Maximum 3 inches apart.

### Foot Rails (OPTIONAL)

MAX. 3 FEET

Foot rails should be spaced no more than 4 inches above the deck surface, or as required by local code, and should be sized as needed for support strength and design appearance.

### Single Corner Post (OPTIONAL)

In most cases with single corner posts, cables must be terminated. Exceptions are angle iron posts or tubular metal posts (when using hand crimp fittings). When terminating on a single corner post, be sure to offset the drill holes at least 1/2" to allow internal clearance for the cable fittings. Use minimum end post sizes noted on page 38, and securely bolt or screw to joists or deck surface.

### **10 YEAR LIMITED WARRANTY**

Feeney, Inc. (Feeney) warrants that all *CableRail* stainless steel cable and connectors shall be free from defects in material and workmanship under normal use, conditions, installation, and maintenance in accordance with product specifications for ten (10) years from date of purchase. The complete warranty is available on our website *www.cablerail.com* 

### HOW TO ORDER CABLERAIL

- 1) **Carefully Review:** Read all of the product information provided in this catalog and on our website *www.cablerail.com.* If you have questions, please call our sales department for assistance, *1-800-888-2418.*
- 2) **Select Cable:** Decide on the cable size and construction.
- Select Fittings: Select the style and type (Machine or CableCrimp<sup>™</sup> or Quick-Connect<sup>®</sup>). Remember, each assembly must include at least one Tension Adjustment Fitting.
- Calculate Assembly Lengths: See the installation steps and "measure point" chart on page 36.
- 5) **Determine Quantities:** Quantities depend on the railing design. Remember, space cables no more than 3 inches apart.
- 6) Check Accessories: Make sure you have all the necessary nuts, screws, caps, washers, crimpers, cutters, etc.
- 7) Place the Order: Visit an authorized *CableRail* dealer to purchase the items. To locate a dealer in your area, click the dealer locator at www.feeneyinc.com or give us a call.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.CABLERAIL.COM





# designing Railing Systems by teenev®

### Searching For a Complete Railing System? Look No Further.

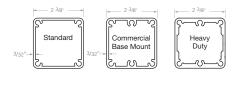
DesignRail<sup>®</sup> Aluminum Railing Frame Systems combine the durability of aluminum with innovative design details to ensure lasting beauty, structural integrity, and affordability while drastically reducing long term maintenance expenses. All rails and stanchions are made from highstrength 6000-series aluminum extrusions that can be cut and assembled on site using pre-engineered components that snap and screw together. DesignRail<sup>®</sup> Aluminum Railing Systems are easily adaptable to any project: interior or exterior, commercial or residential. Simply choose the style options that are best for your project to custom design your railing.

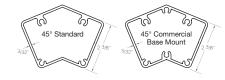
- For railings, fences, privacy panels, barriers
- Available in a variety of cap rail styles as well as cable, glass, and picket infill options
- Durable powder-coated finishes offer superior color retention, impact resistance, and weather protection
- Available in an assortment of colors that meet rigorous AAMA-2604 coating specifications
- Low maintenance with long use cycle: no rusting, cracking, peeling, or repainting
- Easy field assembly with components that snap and screw together: no welding, grinding or special finishing
- Lightweight materials reduce shipping costs, save fuel, and are easier to handle on the job
- Accessory items include ADA compliant grab rails, custom gates, and low-voltage LED lights
- Detail drawings and 3-part specifications available at *www.designrail.com*
- Toll-free design assistance and technical support line, 1-800-888-2418
- Product contains recycled materials





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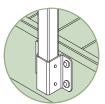


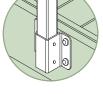


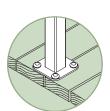
Posts are made from 2-3/8" square tube extrusions in three different distinct cross-sectional profiles: Standard, Commercial Base Mount, and Heavy Duty. Each is specially engineered to provide optimal structural strength and design performance for specific usage and load conditions. Our customer service team will determine which posts are required based on the type of project and the railing design options selected.

Post for horizontal railings come pre-cut for 36", 38", and 42" railing heights. Stair or custom posts must be cut to height in the field and extrusions can be ordered in 10-ft or 20-ft lengths for that purpose. Posts also come pre-drilled for cables when using horizontal cable infill (except stair and ramp posts which must be field-drilled).

We also offer a 45° corner post that provides the option of a single post construction at 45° corners. It is available in Standard and Commercial Base Mount profiles. These posts come pre-cut and pre-drilled (except when used on stairs or ramps).







### FASCIA BRACKET MOUNT

■ Posts come with pre-drilled bolt holes

■ For side mounting to fascia boards, joists, or walls

**FASCIA MOUNT** 

- For side mounting to fascia or rim joists when decking or nosing trim extends beyond the edge of the fascia board
- Posts are attached using metal brackets that have a 1-1/4" standoff
- Railing may require a bottom foot rail when using this mounting method

### SURFACE (BASE) MOUNT

- For top mounting to deck, patio, floor, or stair tread surfaces
- 3/8" thick by 5-inch square for square posts and 3/8" thick with a 1-5/16" contour reveal for 45° posts
- Plates come pre-attached to posts

### **STANCHION MOUNT**

- For mounting with stone or tile covered concrete slabs or on roof decks where penetration of waterproof roofing membranes must be minimized
- Short stanchions are attached to the structural members prior to pouring the slab or laying the roof membrane. Railing posts are then sleeved over the protruding stanchion ends and secured with screws
- Stanchions available in steel, aluminum, or stainless steel (Material used will affect post installation and spacing)
- Typically 12" tall but can be custom sized and supplied with or without base plates

# Frame Colors

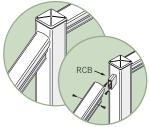
- Durable powder-coated finishes are available in 13 standard colors and over 200 custom colors
- Finishes meet rigorous AAMA-2604 coating specifications for superior color retention, impact resistance, and weather protection



The standard color samples shown represent approximate color only.

# Cap Rails

Cap rails come in 6 styles and are sold in 10-ft and 20-ft lengths that can be trimmed to size in the field. Series 150 Graspable Cap Rails are used on stairs to provide a graspable top rail. Series 150 and Series 100 Cap Rails are attached to the faces of the posts using Rail Connecting Brackets (RCBs). Series 200, 300, 350, and 400 Cap Rails rest on the tops of the posts and are secured with stainless steel screws. Applied Continuous Grab Rails with extensions and returns (see page 46) are available as an accessory item to meet ADA and code stair grab rail requirements.





- Can be used for both stair and horizontal railings
- Meets residential code requirements for stair grab rail sizing. Requires an Applied Grab Rail (page 46) when used on stairs in commercial settings

### SERIES 100 CAPS

- 2" wide square-shaped cap rail
- The narrow width allows it to be installed between posts (using RCBs) instead of on top of posts, creating a newelpost-style railing with posts rising above the cap rail
- Requires an Applied Grab Rail when used on stairs

### SERIES 200 CAPS

- 3-1/2" wide rectangular cap rail
- The flat surface is a convenient perch for your favorite beverage as you relax and gaze at the view
- Requires an Applied Grab Rail when used on stairs

### SERIES 300 CAPS

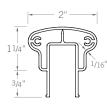
- 1-1/2" radius cap rail
- The smooth rounded shape offers a more contemporary accent to those less traditional architectural designs
- Requires an Applied Grab Rail when used on stairs

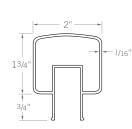
### SERIES 350 CAPS

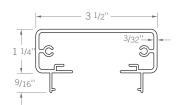
- 3-1/2" wide elliptical cap rail
- The sleek, stylish design offers another option for those who prefer a less angular cap rail appearance
- Requires an Applied Grab Rail when used on stairs

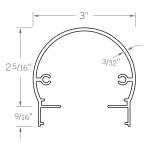
### SERIES 400 CAPS

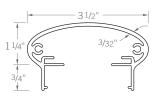
- Low-profile cap for adding a wood or composite top rail. You can either supply your own top rail or use our kiln dried clear western red cedar top rail (must be used with top rail to achieve necessary frame strength; wood and composite top rails not included)
- Requires an Applied Grab Rail when used on stairs









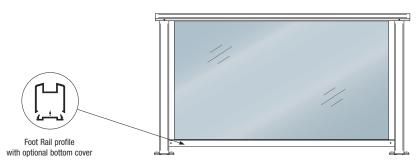




# Infill

The basic infill options are illustrated below. However, Feeney can also assist with custom infill options such as textured, etched, or decaled glass panels; special picket designs; or even wood strips or panels for solid barriers or fences.

All infill options require a Cap Infill Channel and a horizontal Foot Rail (Foot Rails are optional for 36" and 38" high frames using horizontal cable infill). These support the railing infill and help reinforce the frame structure. Foot Rails connect to the posts using Rail Connecting Brackets (RCBs), and Cap Infill Channels snap into the underside of the Cap Rails. Each infill type has a specific corresponding Foot Rail and Cap Infill Channel design. Foot Rails and Cap Infill Channels are available in 10-ft and 20-ft lengths that can be cut to size in the field.



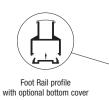
### **TEMPERED GLASS**

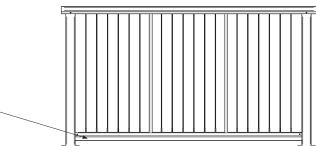
Clear or custom tinted panels that are easily inserted into vinyl lined slots in the Cap Infill Channel and Foot Rail

Top Rail 🔌 Infill

Bottom Rail

- No special mounting hardware needed
- Glass panels are shipped cut to size after the frames are constructed and final opening measurements are submitted





### **VERTICAL CABLES**

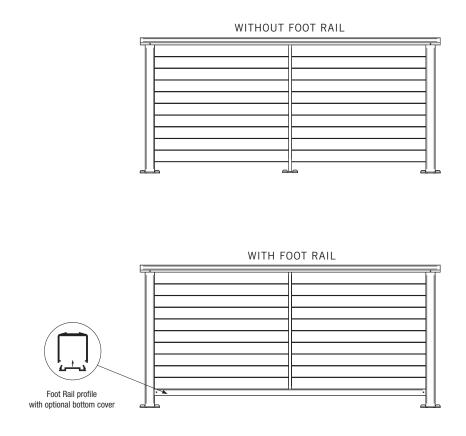
- 1/8" diameter 316-grade stainless steel cables come prefabricated to size with all of the attachment fittings, ready to install
- Two vertical intermediate pickets are spaced mid-span to maximize frame rigidity

### VERTICAL PICKETS

- 3/4" square aluminum Pickets that come cut to size, ready to install
- Pickets are powder-coated to match the frame color

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### HORIZONTAL CABLES

- 1/8" diameter 316-grade stainless steel *CableRail* cable assemblies (see page 10) include all of the attachment fittings and come pre-fabricated in standard lengths that can be trimmed to exact dimensions in the field
- A vertical intermediate picket is used mid-span to minimize cable deflection
- All posts and pickets (except those used on stairs and ramps) come pre-drilled, ready for cable installation

Horizontal Foot Rails are recommended for 42" high frames and may be used as an option on 36" and 38" frames.



# Feeney Lighting

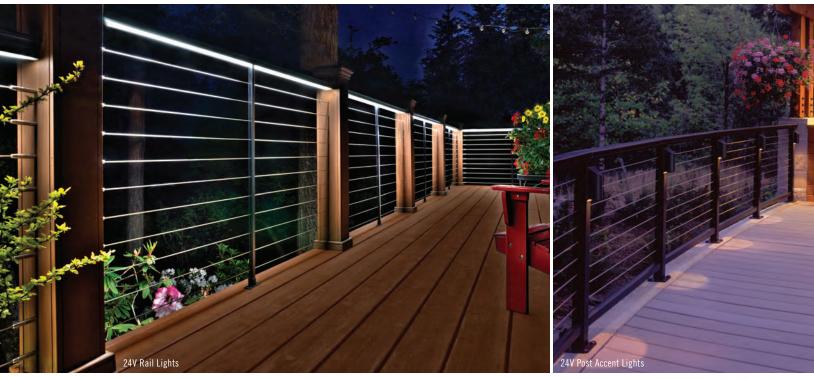
Whether it's entertaining, playing, or just relaxing, our specially designed LED lighting kits and components work with our *DesignRail®* aluminum railing systems to help you create the perfect ambiance for everything you do.

### 24 VOLT LED LIGHTING

Energy efficient LEDs are rated for up to 50,000 hours High quality weatherproof materials for reliable performance High color rendering index (80+) warm white LEDs for truer colors

- Rail Light Kits: Easy-to-Install kits that integrate into the cap or bottom rail to provide beautiful under-rail lighting. Each kit includes a weatherproof lighting strip with a highbond, waterproof adhesive for easy installation (available in multiple lengths), and our exclusive Feeney polycarbonate lens that diffuses light evenly across the railing.
- **Post Accent Lights:** This decorative aluminum sconce has a durable powder-coated finish and attaches to the post face to create a beautiful down light.
- **Power Kits:** Outdoor rated, 24 volt DC constant voltage driver/transformer kits in 35 watt, 60 watt, and 96 watt (optional AC power cable) and dimmable drivers in 40 watt 60 watt, and 96 watt (all driver kits sold separately).
- Inline Dimmer: Optional remote controlled dimmer system designed to work easily with our LED kits to create the perfect level of lighting.





### **12 VOLT LED LIGHTING**

- Single white LED lights that can be individually inserted into holes drilled in the underside of the cap rail to provide a subtle glow. Single LEDs are secured in the holes with a sealing grommet
- Triple white LED lights that can be face-mounted to the cap rails or posts to create warm spot-lighting effect (mounting screws sold separately)
- Aluminum can lights that can be installed on post faces and are powder coated to match the railing color; great for stair railing accents



# DesignRail<sup>®</sup> Aluminum Rail Kits

Our pre-packaged rail kits are designed for use with *CableRail* cables and offer a beautiful, low maintenance, view-friendly railing option for mounting between your wood posts. Kits include a top (cap) rail, bottom rail, pre-drilled intermediate picket, and all necessary attachment hardware, and they're available for both level and stair railings.

- The slender rail profiles enhance the open look of your railing
- Intermediate pickets are pre-drilled to support 1/8" *CableRail* cables (sold separately) and speed installation
- High quality aluminum extrusions and powder-coated finishes offer superior durability with very low maintenance
- Easy field assembly with rails and pickets that can be quickly trimmed and assembled on-site using pre-engineered components that snap and screw together: no welding, grinding, or special finishing
- Level rail kits fit railings up to 42 inches high with a maximum 6 foot spacing between posts
- Stair rail kits accommodate up to 6 foot long stairways with slopes between 29 and 34 degrees and a maximum height of 36 inches
- Matching aluminum post caps add a finished detail to your railings (caps sold separately)
- Three color options



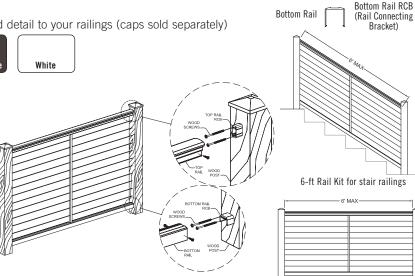
### DESIGNRAIL RAIL KITS

Part#	Description
7609 BLK-pkg	for level railings (Black matte)
7609 BRZ-pkg	for level railings (Bronze matte)
7609 WHT-pkg	for level railings (White)
7610 BLK-pkg	for stair railings (Black matte)
7610 BRZ-pkg	for stair railings (Bronze matte)
7610 WHT-pkg	for stair railings (White)

Black Matte

### ALUMINUM POST CAPS

Part#	Description
4790 BLK-pkg	fits 4x4 posts (Black matte)
4790 BRZ-pkg	fits 4x4 posts (Bronze matte)
4790 WHT-pkg	fits 4x4 posts (White)



6-ft Rail Kit for level railings

Series 150

Snap Cap Cover

Intermediate Picket

Pre-drilled

for cables

with 11 holes,

3 inches apart

Top Rail

Top Rail RCB (Rail Connecting Bracket)

Attachment

Screws



# Additional Items











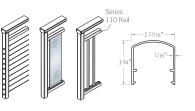




Gate Latch

Cane-Bolt





11/2" O.D.



- Prefabricated aluminum picket or glass infill panels to fit existing wood railing frames
- Custom fabricated to fit individual railing designs
- Easy to install and low maintenance
- Panels are shipped ready to install

### **INTERMEDIATE HORIZONTAL RAILS** (SERIES 110)

- Used with picket, glass, and horizontal infill for creating railing designs with partial height infill
- Sold in 10-ft and 20-ft lengths that can be trimmed to size in the field
- Attaches to the post faces using Rail Connecting Blocks (RCBs)

### APPLIED CONTINUOUS GRAB RAILS

- 1-1/2" diameter aluminum grab rails to meet stair railing code requirements
- ADA compliant extensions and returns
- Custom bent and fabricated, ready for installation



### GATES

- Custom fabricated to size
- Available for all railing styles and infill types

### GATE HARDWARE ACCESSORIES

- Gate latch, cane bolt, and adjustable gate hinge accessories
- Made from UV stabilized, super-strong engineered polymer and stainless steel
- Designed for exceptional durability and lasting, reliable performance
- Easy installation and adjustment with smooth working action
- Key-lockable security features

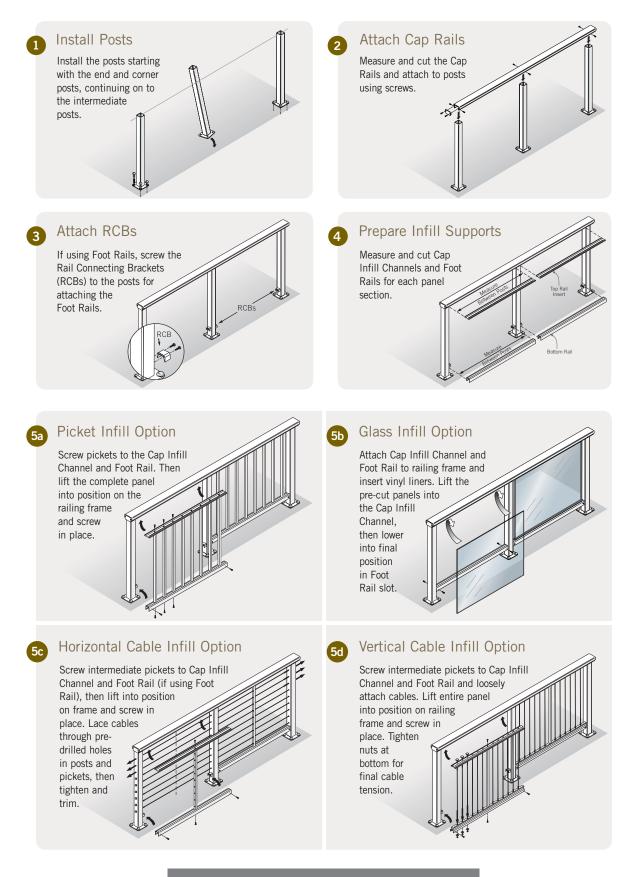
### **ISOLATION BUSHINGS & PADS**

- Bushings eliminate direct contact of dissimilar metals to minimize electrolysis when attaching cables and fittings to metal posts in areas with salt air or similar harsh elements
- Pads protect posts, pickets, and base plates from chemical corrosion caused by contact with concrete or pressure treated wood surfaces
- Bushings made from engineered polymers that are highly resistant to abrasion and UV degradation
- Pads made from high-density neoprene



## Construct Your Railing Frame in 5 Basic Steps

*DesignRail*<sup>®</sup> Aluminum Railing Systems are designed to quickly screw and snap together on site with only a few basic tools. Detailed installation instructions are included with each order and are also available on our website *www.designrail.com* 



### HOW TO ORDER DESIGNRAIL®

- 1) **Carefully Review:** Read all of the product information provided in this catalog and on our website www.designrail.com. If you have questions, please call our sales department for assistance, *1-800-888-2418*.
- 2) Determine Frame Height: 36", 38", or 42".
- 3) Decide Post Mountings: Fascia, surface, fascia bracket, or stanchion mount.
- 4) Select Cap Rail: Series 100, 200, 300, 350, 400, or Series 150 for stairs.
- 5) **Choose Infill:** Aluminum picket, glass, horizontal cable, or vertical cable.
- 6) **Pick Frame Color:** Choose from the 8 standard colors or call for custom colors.
- 7) **Review Other Items:** Will you need stair grab rails, low voltage lights, or gates?
- 8) **Confirm Details & Prices:** All railing projects are unique. Call us at *1-800-888-2418*, and our staff will assist you in confirming a list of the parts needed for your project.
- 9) Place Your Order: Visit an authorized DesignRail<sup>®</sup> dealer to place your order. To locate a dealer in your area, click the dealer locator at <u>www.feeneyinc.com</u> or give us a call.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.DESIGNRAIL.COM

### Note On Packaging

All *DesignRail®* aluminum frames and components are carefully packaged to ensure that products arrive damage-free. Cap Rails, Foot Rails, and Cap Infill Channels are shipped in special 11-ft and 21-ft boxes, and all posts and hardware items are boxed, wrapped, and shipped on standard pallets.

### **IMPORTANT NOTE**

Building codes vary by state, county, and city, so be sure to consult with your local building department before starting your project.



### **10 YEAR LIMITED WARRANTY**

Feeney, Inc. (Feeney) warrants that all *DesignRail®* Aluminum Component Railing Systems adhere to AAMA-2604 coating specification guidelines and will not crack, flake, blister, or peel under normal use, conditions, installation, and maintenance in accordance with product specifications for ten (10) years from date of purchase. In addition, Feeney warrants that the stainless steel cable and connectors shall be free from defects in material and workmanship under normal use, conditions, installation, and maintenance in accordance with product specifications for ten (10) years from date of purchase. The complete warranty is available on our websites *www.designrail.com* and *www.cablerail.com* 



# **STA-LOK**<sup>®</sup> Stainless Steel Rod Assemblies Offer Strength, Versatility, & Beauty.

Feeney has partnered with *Sta-Lok*<sup>®</sup>, one of the world's leading manufacturers of high-quality rigging products since 1973, to offer a comprehensive range of stainless rods and fittings manufactured from the highest specification materials. *Sta-Lok*<sup>®</sup> rod assemblies are an attractive, high-strength, low-maintenance alternative to traditional steel rod and wire rope rigging systems, and they have the added benefit of being able to support loads in both tension and compression conditions. All assemblies are made to order, ready to install and can be used in a variety of structural and decorative applications from glass curtain wall and door canopy supports, to guardrail balusters and trellis infill grids.

- Available in 5/16" to 1" diameter sizes to meet a wide range of design applications
- Low-maintenance, weather-tough 316-grade stainless steel with a satin finish
- Tension Fork fittings offer easy adjustment without bulky turnbuckles
- Special Rod Connectors available for assemblies longer than 12 feet
- Variety of decorative and structural applications
- Cold-heading and other specialty rods and components are available as special order
- Easy ordering with most materials in stock and ready for fast turn-around and delivery
- 3-part specifications available at www.stalokrods.com
- Toll-free design detail and product selection assistance, 1-800-888-2418
- Product contains recycled materials





# Individual Components

### Stainless Steel Rods

- Custom cut and threaded to meet the specific requirements of each job
- Available in lengths up to 12 feet and in diameters to suit UNF threads 5/16" to 1"
- Rod Connectors are used for spans greater than 12 feet
- Milled wrench flats allow tools to grip the rod securely with minimal scratching
- I Minimum breaking loads are based on the core diameter of the thread
- 316-grade stainless steel with a satin finish

Rod Diameter	Thread UNF	Breaking Load (lbs)	Proof Stress 0.2% (lbs)
5/16"	5/16"	5170	2725
3/8"	3/8"	7943	4186
1/2"	1/2"	14569	7678
5/8"	5/8"	23458	12363
3/4"	3/4"	31000	18083
1"	1"	55103	32144

### Sta-Lok® Rod Connectors

- For linking two rod sections together to extend lengths beyond 12 feet
- Connectors are tapped left-hand (LH) threads on one end and right-hand (RH) threads on the other to ensure that assemblies will not unscrew during tensioning
- Designed to develop the full load of the rods
- Available in sizes to suit UNF threads 5/16" to 1"
- 316-grade stainless steel with a satin finish

Item #	Thread UNF (LH/RH)	A	В	
RC-516	5/16"	1-3/8"	7/16"	
RC-38	3/8"	1-5/8"	9/16"	
RC-12	1/2"	2-3/16"	3/4"	
RC-58	5/8"	2-5/8"	7/8"	
RC-34	3/4"	3-1/8"	1-1/8"	
RC-100	1"	4-1/8"	1- 3/8"	

### Sta-Lok<sup>®</sup> Tension Forks

- Available with left-hand and right-hand UNF threads in 5/16" to 1" sizes
- Each fork comes with a locking Conical Nut (CN) and Double Headed Pin
- Using LH and RH threaded Tension Forks on a rod assembly alleviates the need for a turnbuckle and provides the most symmetrical design and economical method of tensioning
- Designed to support the full load of the rods
- 316-grade stainless steel with a satin finish

Item #	Thread UNF	CN	A	В	C	D	PØ
F34-04 L/R	5/16"	1"	2-5/64"	37/64"	13/32"	5/16"	5/16"
F34-05 L/R	3/8"	1-1/8"	2-17/64"	45/64"	7/16"	3/8"	3/8"
F34-08 L/R	1/2"	1-7/16"	2-45/64"	1-5/64"	3/4"	1/2"	1/2"
F34-10 L/R	5/8"	1-5/8"	3-27/64"	1-5/32"	57/64"	5/8"	5/8"
F34-12 L/R	3/4"	1-5/8"	4-7/32"	1-5/16"	1"	3/4"	3/4"
F34-16 L/R	1"	2- 3/4"	5-7/64"	1-37/64"	1-25/64"	1"	1"

L/R = left-hand / right-hand threads



Thread



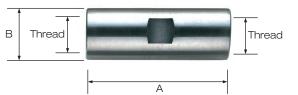
С

В

А

CN

Thread



PØ

# Sta-Lok

55

# **Complete Rod Assemblies**

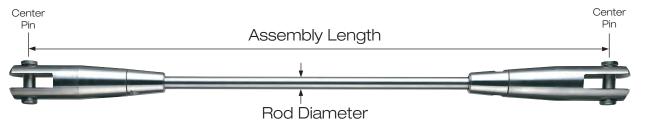
### Sta-Lok<sup>®</sup> Tension Fork Rod Assemblies

In addition to individual rods and components, Feeney offers complete rod assemblies made to your exact lengths, ready to install. Assemblies come with a left-hand Tension Fork on one end and a right-hand Tension Fork on the other, affording easy adjustment and tensioning without the need for bulky in-line turnbuckles. Simply spin the rod to adjust length. Wrench flats are machined onto each rod so that wrenches can grip without scratching the finish. Assemblies are manufactured to your exact lengths with the Tension Forks set in the mid-adjustment position, allowing maximum adjustment without any exposed threads. See chart below for the plus/minus adjustment for each rod size.

- Each assembly includes a rod, LH and RH Tension Forks, Conical Nuts, Double Headed Clevis Pins, and Rod Connectors (if needed)
- Manufactured from 316-grade stainless steel with a satin finish
- Available in 5/16" to 1" diameters
- Rod Connectors are used for all assemblies over 12 feet long
- Assemblies are shipped pre-assembled, with Tef-Gel anti-seize on the threads

### Measuring Assembly Lengths

Assemblies are measured from center pin to center pin with the Tension Forks set in the mid-adjustment position. The chart indicates the available plus/minus adjustment range for each rod size. Assemblies are designed so that no threads will ever be exposed if adjustment is kept within the noted ranges.



### Sta-Lok® Tension Rod Assembly Standard Adjustment Ranges

Rod Diameter	Adjustment Each End	Adjustment Total Assembly
5/16"	+/- 5/16"	+/- 5/8"
3/8"	+/- 3/8"	+/- 3/4"
1/2"	+/- 1/2"	+/- 1"
5/8"	+/- 5/8"	+/- 1-1/4"
3/4"	+/- 3/4"	+/- 1-1/2"
1"	+/- 1"	+/- 2"

### Sta-Lok<sup>®</sup> Isolation Washers and Sleeves

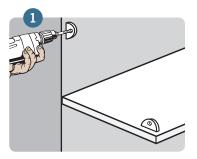
- Used to eliminate direct contact of dissimilar metals, thereby minimizing the possibility of electrolysis when attaching Tension Forks to structural members
- Isolation Washers are made from nylon and Isolation Sleeves are made from glass-filled nylon for extra high compression strength and durability
- All Washers and Sleeves are special order items



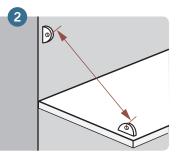


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### Installing Your Rod Assemblies



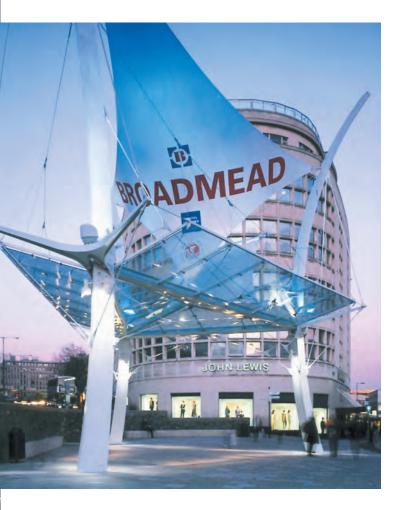
Mark and drill holes in the framework (or install eyebolts). Be sure the material thickness, hole diameter, and hole position allow for the fork opening and clevis pin to fit properly.



Measure between the bearing edges of the attachment holes and calculate the assembly lengths for ordering.

3	
	Tighten
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	A Anton
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	~

Loosely attach the rod assembly by fastening the fork ends to each hole using the removable clevis pins. If necessary, spin both forks equally to adjust length. Adjust final tension by turning the rod with a wrench.



### 2 YEAR LIMITED WARRANTY

Feeney, Inc. (Feeney) warrants that all *Sta-Lok*<sup>®</sup> stainless steel rods and connectors shall be free from defects in material and workmanship under normal use, conditions, installation, and maintenance in accordance with product specifications for two (2) years from date of purchase. The complete warranty is available on our website *www.stalokrods.com* 

### HOW TO ORDER STA-LOK<sup>®</sup> ROD COMPONENTS AND ASSEMBLIES

- Carefully Review: Read all information provided in this catalog and on our website *www.stalokrods.com*. For questions and assistance, please call our sales department toll-free, *1-800-888-2418*.
- 2) Select Fittings and Sizes: Select the diameter of rod and type of fittings needed for your project application.
- 3) Measure Lengths: Calculate the center pin to center pin lengths for each of your assemblies.
- 4) **Determine Quantities:** Count the number of assemblies you will need.
- 5) Check Accessories: Note any isolation sleeves, washers, or connectors you may require.
- 6) **Confirm Details and Prices:** All projects are unique. Call us at *1-800-888-2418*, and our staff will assist you in confirming a list of the parts needed for your project and provide you with a price quote.
- 7) Place Your Order: Please call, fax, or e-mail us your final list for order processing. Standard orders ship via common truck carrier, freight collect.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.STALOKRODS.COM

### **IMPORTANT NOTE**

Building codes vary by state, county, and city, so be sure to consult with your local building department before starting your project.

HURRY, ORDER TODAY! Lightline® Canopies are being discontinued. Limited to stock on hand. Please call 1-800-888-2418 to confirm availability.





Feeney is the exclusive U.S. distributor for *Lightline®* Canopy products manufactured by Polymer Kunststoffe GmbH of Germany. *Lightline®* Canopies combine stainless steel, aluminum, and acrylic components into modern, eye-catching designs that are both visually and functionally attractive. The canopies are sold in easy-to-order, fast-to-assemble kits with durable, weather-tough stainless steel support arms, UV resistant acrylic visor panes, integrated aluminum rain gutters, and all of the necessary attachment hardware. Kits come in a variety of sizes with clear, frosted, and tinted pane finish options, and the special patented Click-Lock pane attachment feature makes installation a breeze.

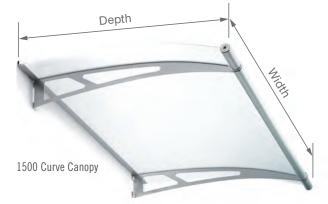
- Easy-to-order, easy-to-install kits in a variety of sizes
- Can be used to protect doorways, entrance areas, windows, and walkways
- Support arms come in standard and heavy duty thicknesses
- Arms made from 304-grade stainless steel with a fine grain satin finish
- UV resistant acrylic visor panes available in clear, frosted, and tinted finishes
- Integrated clear-anodized aluminum rain gutters
- Clear-anodized aluminum wall connection with hidden rubber seal
- Patented Click-Lock pane attachment feature for easy installations
- Load tested
- German precision engineering and quality
- Toll-free information and assistance line, 1-800-888-2418
- Product contains recycled materials



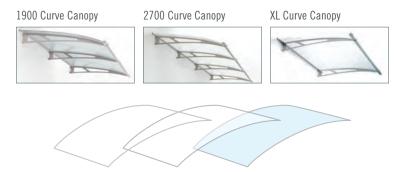
# Lightline<sup>®</sup> Curve Canopies

The *Lightline*<sup>®</sup> Curve Canopy is a simple and elegant design with a curved visor pane that slopes gently away from the wall face.

- Kits come in four size models (1500, 1900, 2700, and XL) and include all of the basic installation hardware
- Hidden rubber gasket seals the canopy to the wall and directs rainwater down the curved pane and into an integrated front gutter that drains on both ends
- Special patented Click-Lock pane attachment feature allows fast, secure installations without drilling holes through the acrylic pane
- UV resistant acrylic visor panes are available in clear, frosted, and tinted finishes
- Support arms are, 304-grade stainless steel with a fine sand satin finish. Gutters are clear-anodized aluminum
- Heavy-duty (HD) canopy models with thicker support arms are available for areas with higher snow load requirements







Clear, frosted, and blue.

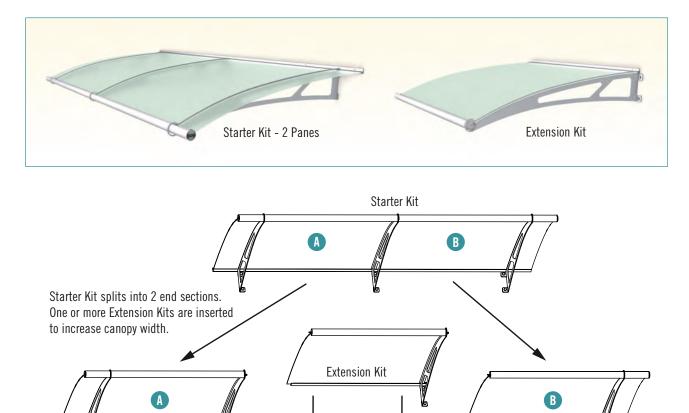
Model	Part#	Acrylic Pane (Color/Thickness)	Support Arms (Qty/Thickness)	Width	Depth	Max. Snow Load Limit (Lbs./Sq.Ft.)
1500-Curve	9000-CLR	Clear 5/32"	2 @ 5/32"	(4' 11-1/16")	(3' 1-3/8")	15
1500-Curve	9000-FRS	Frosted 5/32"	2 @ 5/32"	(4' 11-1/16")	(3' 1-3/8")	15
1500-Curve-HD	9000-CLR-HD	Clear 5/32"	2 @ 1/4"(HD)	(4' 11-1/16")	(3' 1-3/8")	27
1500-Curve-HD	9000-FRS-HD	Frosted 5/32"	2 @ 1/4"(HD)	(4' 11-1/16")	(3' 1-3/8")	27
1900-Curve	9001-FRS	Frosted 5/32"	3 @ 5/32"	(6' 2-13/16")	(3' 1-3/8")	15
1900-Curve	9001-CLR-HD	Clear 5/32"	3 @ 1/4"(HD)	(6' 2-13/16")	(3' 1-3/8")	27
1900-Curve-HD	9001-FRS-HD	Frosted 5/32"	3 @ 1/4"(HD)	(6' 2-13/16")	(3' 1-3/8")	27
2700-Curve	9002-FRS	Frosted 5/32"	4 @ 5/32"	(8' 10-5/16")	(3' 1-3/8")	15
2700-Curve-HD	9002-CLR-HD	Clear 5/32"	4 @ 1/4"(HD)	(8' 10-5/16")	(3' 1-3/8")	27
2700-Curve-HD	9002-FRS-HD	Frosted 5/32"	4 @ 1/4"(HD)	(8' 10-5/16")	(3' 1-3/8")	27
XL-Curve	9003-CLR	Clear 1/4"	2 @ 1/4"	(6' 8-11/16")	(4' 7-7/8")	15
XL-Curve	9003-FRS	Frosted 1/4"	2 @ 1/4"	(6' 8-11/16")	(4' 7-7/8")	15
XL-Curve	9003-BLU	Blue 1/4"	2 @ 1/4"	(6' 8-11/16")	(4' 7-7/8")	15
XL-Curve-HD	9003-CLR-HD	Clear 1/4"	2 @ 5/16"(HD)	(6' 8-11/16")	(4' 7-7/8")	27
XL-Curve-HD	9003-FRS-HD	Frosted 1/4"	2 @ 5/16"(HD)	(6' 8-11/16")	(4' 7-7/8")	27

### HURRY, ORDER TODAY!

Lightline® Canopies are being discontinued. Limited to stock on hand. Please call 1-800-888-2418 to confirm availability.

# Curve Extendable Canopies

Curve Canopies are also available in extendable styles that can be expanded to create wider canopies suitable for storefronts, showcase facades, or large entrance areas. These extended canopies are comprised of special Extension Kits that are combined with a two-pane Starter Kit. Multiple Extension Kits can be added to the same Starter Kit to achieve the desired canopy width. The components, materials, and finishes used in these kits are identical to those used in the individual standard curve canopies shown on the adjacent page, with the only difference being the width of the acrylic panes. Heavy-duty models with thicker support arms are <u>not</u> available in these extendable canopy styles.



Part#	Description	Acrylic Pane (Color/Thickness)	Support Arms (Qty/Thickness)	Width	Depth	Max. Snow Load Limit (Lbs./Sq.Ft.)
9030-CLR	Starter Kit	Clear 5/32"	3 @ 5/32"	(6' 3-7/16")	(3' 1-3/8")	15
9030-FRS	Starter Kit	Frosted 5/32"	3 @ 5/32"	(6' 3-7/16")	(3' 1-3/8")	15
9030-BLU	Starter Kit	Blue 5/32"	3 @ 5/32"	(6' 3-7/16")	(3' 1-3/8")	15
9031-CLR	Extension Kit	Clear 5/32"	1 @ 5/32"	(2' 8-1/8")	(3' 1-3/8")	15
9031-FRS	Extension Kit	Frosted 5/32"	1 @ 5/32"	(2' 8-1/8")	(3' 1-3/8")	15
9031-BLU	Extension Kit	Blue 5/32"	1 @ 5/32"	(2' 8-1/8")	(3' 1-3/8")	15
9016-CLR	XL-Starter Kit	Clear 1/4"	3 @ 1/4"	(9' 5-1/8")	(4' 7-7/8")	15
9016-FRS	XL-Starter Kit	Frosted 1/4"	3 @ 1/4"	(9' 5-1/8")	(4' 7-7/8")	15
9017-CLR	XL-Extension Kit	Clear 1/4"	1 @ 1/4"	(3' 11-15/16")	(4' 7-7/8")	15
9017-FRS	XL-Extension Kit	Frosted 1/4"	1 @ 1/4"	(3' 11-15/16")	(4' 7-7/8")	15

### HURRY, ORDER TODAY!

Lightline<sup>®</sup> Canopies are being discontinued. Limited to stock on hand. Please call 1-800-888-2418 to confirm availability. Lightline

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## Basic Steps For Installing The Curve Canopy

Complete step-by-step installation instructions are available in PDF format on our website www.lightlinecanopies.com



Align and attach the stainless support arms to the wall.



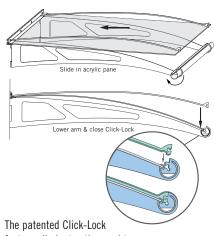
Insert the aluminum rain gutter through the slots at the end of the support arms.



Slide the acrylic pane into position on the open support arms.



Secure the pane by closing the Click-Locks and attaching the rain gutter rods and end caps.



feature eliminates the need to drill holes in the acrylic visor panes. Simply insert the acrylic pane into the frame, lower the support arms, and snap the Click-Lock ends together. Secure and lock the arms and pane by attaching the special rain gutter rods and end caps.

### **IMPORTANT NOTES**

*Lightline*<sup>®</sup> canopy kits come with all the hardware needed to assemble. Please verify the type of wall you have before installing the canopy. If necessary, you may need to use screws and anchors other than those included in the installation kit. Never attach canopies to vinyl siding, stucco, Dryvit<sup>®</sup> or other synthetic or natural construction material walls where the structural integrity is uncertain or where possible penetration of a moisture barrier membrane may create a potential for water leakage or damage. Be sure to carefully seal any wall penetrations with the proper sealant materials. Consult a construction expert for advice on your specific conditions.

Building codes vary by state, county, and city, so be sure to consult with your local building department before starting your project.

WARNING: *Lightline<sup>®</sup>* canopies have snow and wind load limitations. You are solely responsible for determining the snow and wind load requirements for your area.





### A FEW WORDS ABOUT THE MATERIALS

The protective chromium oxide film on the surface of stainless steel gives it superior corrosion resistance. Properly maintained stainless steel provides excellent luster, strength, and durability. In most applications, stainless steel will not rust or stain even after years of service, but it is NOT rust or stain proof. When stainless comes in contact with chloride salts, sulfides, or other rusting metals, it can discolor or even rust and corrode. With proper care and maintenance, however, stainless steel can remain beautiful and functional for years to come.

The acrylic panes have excellent resistance to weather and UV rays, but prolonged exposure to direct sunlight and environmental contaminants may cause slight discoloration over time. The panes are also subject to scratching. Therefore, it is important to install and handle the panes carefully and clean them properly. Please note that the Click-Lock installation feature also makes it very easy to replace panes if they are ever damaged. For complete care and maintenance instructions, please visit our website *www.lightlinecanopies.com* 

### HOW TO ORDER LIGHTLINE® CANOPIES

- 1) Carefully Review: Read all information provided in this catalog and on our website *www.lightlinecanopies.com.* For questions and assistance, please call our sales department toll-free, *1-800-888-2418.*
- 2) Select Your Canopy Style: Curve or Curve Extendable.
- 3) Select Canopy Size: Models 1500, 1900, 2700, XL, or Extendable Kits.
- 4) Select Acrylic Pane Finish: Clear, frosted, blue, or green.
- 5) **Determine Quantities:** Count the number of kits you will need.
- **5) Confirm Details, Prices & Availability:** All projects are unique. Call us at *1-800-888-2418*, and our staff will assist you in confirming a list of all items needed for your project and provide you with a price quote. Since Lightline® canopies are being discontinued, our customer service staff can also confirm in-stock availability.
- 7) Place Your Order: Please call, fax, or e-mail us your final list for order processing. The 1500 models can ship via UPS and all others via common truck carrier, freight collect.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.LIGHTLINECANOPIES.COM



# **TRELLIS** Collection Stylish, Easy-to-Install Trellises for Residential and Commercial Settings.

Drawing from our vast experience with aluminum frames and stainless steel cables, rods, and fittings, we have developed a selection of attractive vertical trellises for residential and commercial settings.

The trellises are sold in complete, easy-to-use kits with powder-coated aluminum support frames and sleek stainless steel cable and rod vine grids. Utilitarian, decorative, and artistic, these trellises are perfect for displaying light- to medium-weight foliage and offer simple, elegant design details with exceptional versatility and easy installation. Use them to minimize UV exposure on walls, control ambient heat gain, frame a lovely view, direct foot traffic, or create a cool, relaxing retreat or entertaining area.

- Complete, easy to install kits available in an assortment of sizes and mounting options
- Aluminum support frames and brackets with durable, powder-coated finishes
- 316-grade stainless steel cables & rods for lasting beauty and weather-tough strength
- Fully adjustable rods with special Micro Cross-Clamp connectors
- Variety of uses: extending gardens vertically, vegetable supports, privacy panels, space dividers, sun shades, decorative backdrops, and more
- Multiple kits can be combined to create the landscape design you desire
- Detail drawings and 3-part specifications available at www.feeneyinc.com/garden
- Toll-free information and assistance line, 1-800-888-2418
- Product contains recycled material







# 3-in-1 Wall Mount Trellis



The 3-in-1 trellis is a complete, easy-to-assemble, all stainless steel wall mount trellis kit with 1/8" diameter rods and special mounting components that can be configured into any one of 3 trellis design layouts (Fan, Grid, or Diamond), or you can create your own designs.



Rods come in 48" lengths that can be spliced together using Connector Tubes (included), and they are supported by specially designed 2" Stand-Off fittings that screw into the wall. Micro Cross-Clamp fittings securely hold intersecting rods in position using locking setscrews. All rods and components are made from high quality 316-grade stainless steel for weather-tough durability, low maintenance, and lasting beauty. Kits include all mounting hardware and installation instructions for building any one of the 3 standard layouts, plus a time saving layout template.



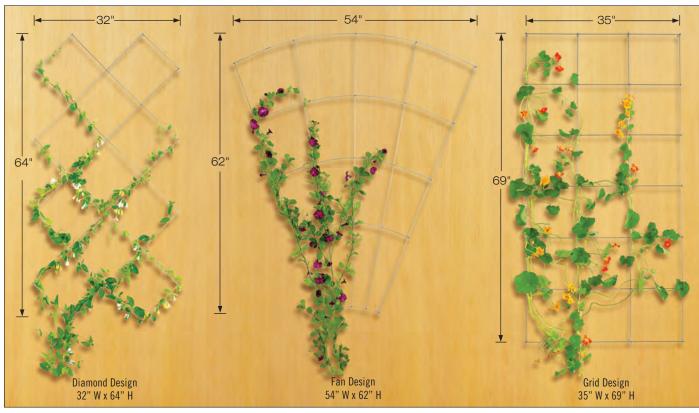
### Each 3-in-1 trellis kit includes the following:

- 12 stainless steel 2" Stand-Off fittings with mounting hanger bolts
- 13 stainless steel rods (48" long)
- 6 stainless Rod Connector Tubes
- 16 stainless steel Micro Cross-Clamp fittings
- 12 plastic anchor inserts (for masonry/concrete)
- Installation instructions
- Layout template
- Hanger bolt installation tool
- Hex key wrench

Part#	Description	Possible Layouts
8900	3-In-1 Trellis Kit	Fan, Grid, or Diamond

#8900 Package





Trellises are spaced 2" from wall.

Exclusive Design Details



2" Stand-Off fittings support the lattice structure. They attach to the wall using a threaded hanger bolt.

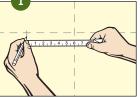


Micro Cross-Clamp fittings use a locking setscrew to securely fasten crisscrossing rods.

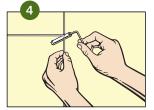


Slender Connector Tubes splice rods together to extend rod lengths beyond 48".

Installing The 3-in-1 Trellis



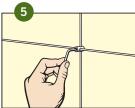
Mark layout on wall using tape measure or template (included).



Lace the rods through the Stand-Off fittings and secure by tightening the setscrews.



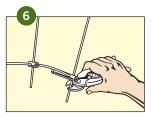
Drill holes to mount the Stand-Off fittings.



Connect intersecting rods with Micro Cross-Clamp fittings.



Screw the Stand-Off fittings to the wall.



Trim the excess rod, and you're done.

# Somerset® II Wall Mount Trellis



The Somerset<sup>®</sup>// trellis is designed for easy mounting onto walls or fences. It consists of two 40" long powder-coated aluminum brackets, top and bottom, that screw to the wall face and support a lattice of four vertical 1/8" diameter stainless steel cables and five horizontal 1/8" diameter rods. The support brackets can be spaced from 2 to 6 feet apart to fit a variety of wall heights.



Also available in Arch Top style, #8707-BLK

Special setscrew-locking Threaded Terminal cable fittings allow the cable assemblies to be easily trimmed and assembled to exact length in the field during installation. Special Micro Cross-Clamps with locking setscrews securely hold the rods in position. All rods, cables, and components are made from high quality 316-grade stainless steel for weather-tough durability, low maintenance, and lasting beauty. Multiple kits can be mounted adjacent to one another to make wider trellises, and each kit includes all mounting screws, hardware, and installation instructions.

### Each Somerset<sup>®</sup> II trellis kit includes the following:

- 2 powder-coated aluminum support brackets with mounting hardware
- 4 stainless cables with attachment fittings
- 5 stainless rods with Micro Cross-Clamps
- 4 plastic anchor inserts (for concrete/masonry)
- Installation instructions
- Hex key wrenches

Part#	Description	*Bracket Color
8706F-BLK	Somerset <sup>®</sup> II Trellis Kit	Black Matte
8707-BLK	Somerset® II Arch-Top Trellis Kit	Black Matte

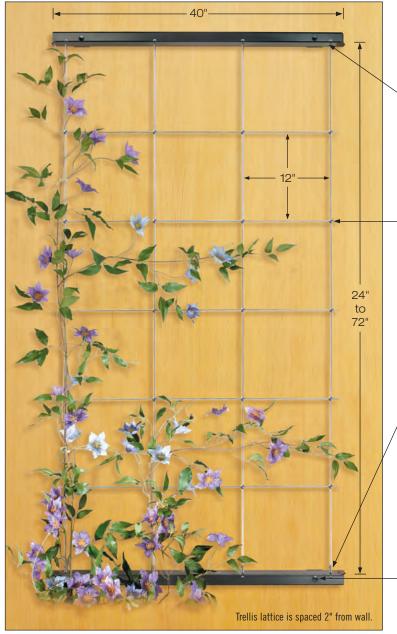
\*Powder coated finishes meet rigorous AAMA-2604 coating specifications for superior color retention, impact resistance, and weather protection. Additional colors are available on a custom quote, custom order basis.

#8706F-BLK Package

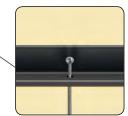


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### Adjustable to fit your wall height



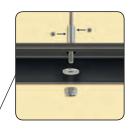
### Exclusive Design Details



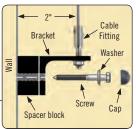
Each cable comes with a small stainless steel Ball fitting pre-attached to one end.



Micro Cross-Clamps use a locking setscrew to firmly hold the rods in position.

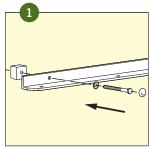


Special Threaded Terminal fittings are attached to the cable in the field using two offsetting setscrews. Anti-loosening nylon-insert locknuts securely fasten the cables to the bottom bracket and are used to adjust tension.

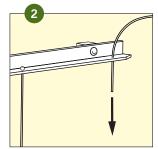


½" thick spacer blocks hold the brackets away from the wall for proper lattice clearance and optimal water drainage. Mounting screws are inserted through the bracket and spacer blocks and into the wall and are finished with decorative caps.

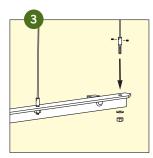
### Installing The Somerset®II Trellis



Securely screw top and bottom support brackets to wall. Check that brackets are level and vertically aligned with one another. Brackets may be spaced 2-ft to 6-ft apart.



Lace cables through holes in top brackets and let them hang freely on the Ball fittings.



Trim cables to proper length and attach Threaded Terminals using setscrews. Fasten and tighten Terminals to bottom bracket with nylon-insert locknut.



Position and fasten horizontal rods to cables using Micro Cross-Clamps.

# Greenway Freestanding Trellis



The *Greenway* is a freestanding trellis panel kit (43"w x 72"h) made from 1-1/2" diameter aluminum tubing sections with a durable powder coated finish. The pre-cut tubing sections are easily assembled using connecting splice sleeves and screws.



Four 1/8" diameter stainless steel cables with adjustable threaded end fittings are strung vertically on the frame, and they support four 1/8" diameter stainless steel rods that are attached horizontally using special Micro Cross-Clamps with locking setscrews. The rods may be positioned anywhere along the cables, but the recommended spacing is 11-1/4" apart. The frame legs can either be set in compacted gravel or concrete footings, or they can be trimmed and fitted with surface mount Base Plates (sold separately). All rods, cables, and components are made from high quality 316-grade stainless steel for weather-tough durability, low maintenance, and lasting beauty. Multiple trellis kits can be combined in a variety of ways to create the landscape effect you desire. Kits include all necessary hardware and installation instructions.



### Each *Greenway* trellis kit includes the following:

- 1 powder coated aluminum tubular frame (comprised of 4 sections with complete assembly hardware)
- 4 stainless cable assemblies with attachment fittings
- 4 stainless rods with Micro Cross-Clamps
- Installation instructions
- Hex key wrench
- Square-drive bit

### Each Base Plate kit includes the following:

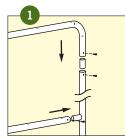
- 2 powder coated aluminum Base Plates (5" diameter) with connecting splice sleeves and locking screws
- 6 stainless mounting screws (1/4"x 2") with washers and cover caps
- 6 plastic anchor inserts (for concrete or masonry installations)
- Installation instructions

Part#	Description	*Frame Color	Part#	Description	*Frame Color
8705-BLK	Greenway Trellis Kit	Black Matte	8451-BLK	Greenway Base Plate Kit	Black Matte

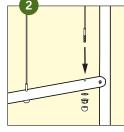
\*Powder coated finishes meet rigorous AAMA-2604 coating specifications for superior color retention, impact resistance, and weather protection. Additional colors are available on a custom quote, custom order basis.



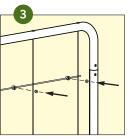
### Installing The Greenway Trellis



On a flat surface assemble the tubular frame using connecting splice sleeves and screws.



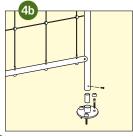
Attach and tighten the vertical cables. Threaded Terminal fittings on the bottom and Fixed Button Head fittings on top.



Position and fasten the horizontal rods to the cables using the Micro Cross-Clamps with locking setscrews.



Dig holes and lift the trellis frame into position. Carefully fill the holes with gravel or concrete; check alignment frequently.



or Trim legs to desired length and attach Base Plates (sold separately). Lift frame into position and securely screw plates to floor or deck surface.

### HOW TO ORDER TRELLIS KITS

- 1) **Carefully Review:** Read all product information provided in this catalog and on our website *www.feeneyinc.com/garden* If you have questions, please call our sales department for assistance, *1-800-888-2418*.
- Select Trellis Style: Wall mounted Somerset<sup>®</sup>II, or 3-in-1, or freestanding Greenway.
- 3) **Determine Quantities:** Select the quantity of trellises needed.
- 4) Check Accessories: Make sure that you have all of the necessary accessories and tools.
- 5) Place Your Order: Please call, fax, or e-mail us your final list for order processing. Orders ship via UPS.

FREE: 1-800-888-2418 PH: 1-510-893-9473 FAX: 1-510-788-6041 SALES@FEENEYINC.COM WWW.FEENEYINC.COM/GARDEN



# Tools & Accessories

### **CABLE CUTTERS**

For trimming excess cable or rod on the Somerset®II and 3-in-1 trellises

Part#	Description
2972-pkg	7-1/2" long, for cable/rod up to 1/8"Ø

### ABRASIVE DISKS

- Option for trimming and touching-up the exposed cable and rod ends
- Fits 4-1/2" electric grinders with 7/8" arbor hole

Part#	Description
3219	Cut-Off Disk (designed for cutting stainless steel)
3220	Grinding Disk

### HANGER BOLT INSTALLATION TOOL

For easily installing Stand-Off fitting hanger bolts

Hexagonal	shaft fite	: 1/3"	electric	drill	or 3/8"	socket wrench
HEXaguilai	Shart Int	o 72	Electific	uIIII	01 3/0	SOCKEL WIEIICH

Part#	Description
3988	1/4-20RH threads x 7/8" long

### STAND-OFF FITTINGS (316 Stainless)

- For attaching rods to walls to create custom trellis layouts
- Double-hole design can support either a single rod or two crossing rods
- Each fitting includes a 2" Stand-Off body with locking setscrew, hanger bolt, hex nut, and plastic anchor insert (for masonry/concrete)

boit, nex nut, and p		
Part#	Description	
8406	3/8"Ø x 2" long tubular body, for 1/8"Ø rods	

### ROD CONNECTOR TUBES (316 Stainless)

For splicing rods together to extend rod lengths	
--	--

Part#	Description
22208F	3/16"Ø x 1-5/8" long, for 1/8"Ø rods

### **RODS** (316 Stainless)

- For creating custom trellis designs or adding more rods to the Somerset®II or Greenway
- Use with Stand-Off, Cross-Clamp, and Connector Tube fittings

Part#	Description
8420	1/8"Ø x 38" long
1445	1/8"Ø x 48" long



### MICRO CROSS-CLAMPS (316 Stainless)

■ For attaching two intersecting 1/8"Ø rods/cables

Each fitting includes a locking setscrew

Part#	Description
8402	3/8ӯ x 9/16
8404	3/8ӯ x 9/16

2	3/8"Ø x 9/16"	long, 2-hole (rods/cables must be laced through each hole)
		long, slotted (quick attachment to pre-hung cables/rods)

**IMPORTANT NOTE:** Never attach trellises to vinyl siding, stucco, Dryvit<sup>®</sup> or other synthetic or natural construction material walls where the structural integrity is uncertain or where possible penetration of a moisture barrier membrane may create a potential for water leakage or damage or may violate and void any product warranties. Be sure to carefully seal any wall penetrations with the proper sealant materials. Consult a construction expert for advice on your specific conditions.

Building codes vary by state, county, and city, so be sure to consult with your local building department before starting your project.

### 5 YEAR LIMITED WARRANTY

Feeney, Inc. (Feeney) warrants that all trellis kits (aluminum support frames and stainless steel cables, rods, and connectors) shall be free from defects in material and workmanship under normal use, conditions, installation, and maintenance in accordance with product specifications for five (5) years from date of purchase. The complete warranty is available on our website *www.feeneyinc.com/garden* 

# **Cinch Plant Hanger**



*Cinch* plant hangers are made from sleek, strong, 3/64" diameter 316-grade stainless steel cable crafted into an attractive and versatile hanger design that blends beautifully with any decor, indoors or out, requires no assembly, and easily adjusts to fit a variety of shapes and sizes. *Cinch* hangers can be used to hang pots, wood planters, bird feeders and baths, candles, baskets, bowls, and more, and each hanger can hold up to a 25 lb load.





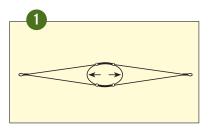
Retail Package

### The Hang Length will vary depending on the pot diameter:

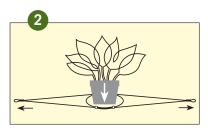
Part#DescriptionPot SizeApprox.<br/>Hang LengthPH-300Cinch hanger (1 qty)4"31"8"28"12" (Maximum)24"



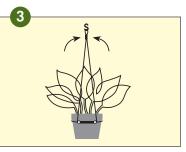
### Using the Cinch is simple



Open the center loop to accommodate the pot size.



Insert the pot into loop and pull the ends to securely close the loop around the pot.



Lift the ends together and attach the "S" hook to hang.

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### **Sales Locations**

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