## feeney

IN-LINE TURNBUCKLE WITH FIXED LOCK TOGGLE

# CADLE·RAIL CUSTOM In-Line Turnbuckle

Feeney<sup>®</sup> In-Line Turnbuckles are Tension Adjustment fittings used in the middle of a cable assembly for additional tensioning on long runs or where end tensioning is not feasible or desired. In-Line Turnbuckles can be used in both level and stair applications. Cable assemblies are available pre-attached (machine swaged M) or ready to attach in the field (CableCrimp<sup>M</sup> C). Use with Feeney Bulk Cable, sold separately.

#### **FEATURES & BENEFITS**

- For use with wood or metal frames, level or stair railings
- Made of Type 316 marine-grade stainless steel
- For use in the middle of a cable assembly, attaches to cable on both ends
- For CableCrimp<sup>™</sup> fittings ( ) use the Crimper tool to attach fittings to cable in the field
- Can be used between any Tension Adjustment Fittings or Fixed Ends



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

Part#	Swage	CableØ	Thread	L close (open)
3289	М	1/8"	1/4-28	7-1/2" (10-1/2" )
3731	М	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" )



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#### CUSTOM CABLERAIL SWAGED FITTINGS

Projects with special installation conditions or design considerations may require certain styles of cable and fittings not addressed by our CableRail Kits. 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, ready to install.

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. Swaged fittings come in two types:

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#### MACHINE SWAGING (SWĀJ'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™ 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. After proper crimping, the fitting will display several evenly spaced compression marks where the tool was engaged. Most 1/8-in and 3/16-in cable fittings are available in CableCrimp<sup>™</sup> styles.

FIXED END

#### **CABLE ASSEMBLIES**

There are two types of fittings: Fixed End fittings and Tension Adjustment fittings.

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Each cable assembly must include at least one Tension Adjustment fitting.



- Include Tensioner fittings, Turnbuckles, Threaded Terminals, and Adjusters
- Tension is adjusted by spinning the tubular body on Tensioners and Turnbuckles, tighting the bolt on ThreadedTerminals, or rotating the bolt on the Adjusters
- Tension Adjustment fittings can be paired with either a Fixed End or another Tension Adjustment fitting.

#### **FIXED END FITTINGS**

- Non-adjustable end termination fittings
- No tensioning capabilities
- Must be paired with a Tension Adjustment fitting

CableRail is made of marine grade stainless steel and will last for years with regular maintenance. Learn more: feeneyinc.com/Warranty-and-Care.

#### SPECIALLY ENGINEERED TOOLS FOR CABLERAIL



For shearing stainless steel cables up to 1/8" diameter.



Cable Cutters For shearing stainless steel cables up to 1/4" diameter.



Stainless Steel Cleaner Kit Clean and maintain all stainless steel surfaces, fittings, and cables.



Cable Tension Guage Easy-to-use tool for checking cable tension.



CableCrimp<sup>™</sup> Crimper For attaching 1/8-in and 3/16-in CableCrimp<sup>™</sup> style hand swage fittings

in the field.

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