

CABLE RAIL



Ultra-tec[®]
CABLE RAILING SYSTEMS

Ready to Install Cable Assemblies

Includes one Invisiware[®] with **Swaged Threaded Ferrule** tensioning end and one **Pull-Lock**[™] fixed end.

Install the Cable and field trim after tensioning.

CABLE ASSEMBLIES INCLUDE:

- Fittings for both ends of your Cable run
- All Washers and Fasteners necessary
- 3/16" Diameter, Type 316 Stainless Steel Cable
- Instructions

IM S INDUSTRIAL METAL SUPPLY CO.
metal made easy

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Field installed Pull-Lock fittings make installing cables easy.

No field swaging

Pull-Lock fittings are designed for use with 1 x 19 left-hand-lay strand only.

Easy to install

1. Insert the **Invisiware Receiver with Swaged Threaded Ferrule** on one **End Post**.
2. Slip the **Pull-Lock** fitting into the other **End Post** and pull the **Cable** all the way through the **Pull-Lock** fitting.
3. Tension the Cable then cut the excess Cable off on the back side of the fitting with a 4" right angle grinder or a cutting wheel (CRCUTOFFKIT) used with a hand drill.
4. Press on the stainless steel cap to cover the bare Cable end, and you're done!



Cable Assembly shown with Invisiware Receiver and Push-Lock Stud.



How to Order: Determine your Railing frame materials

– wood or metal – and the width or diameter of your End Post – Posts to which tensioning and other mounting hardware will be attached.

Measure the length of each Cable run:

- Add at least 6 inches to your measurement.
- Order the assemblies in Cable length increments of 10, 20 or 30 feet – to provide sufficient Cable for each of your Cable runs.

Cable will be cut to proper length on site.

Order Cable Cutter and other tools separately – as required.

200 SERIES CABLE ASSEMBLIES Invisiware® Receiver with Pull-Lock™

Outside to Outside Mount. Use on straight runs.

- Slide the Invisiware Receiver with Cable into one End Post – be sure to leave several threads of the Threaded Ferrule visible so that you have ability to tension.
- Install the Pull-Lock Fitting on the other end.
- Insert Cable into and through Pull-Lock.
- Cut Cable to length using CRCUTOFFKIT.
- Tension the Cable using a hex wrench in the slot in the cap of the Receiver.
- Cap cut end of Cable.

3/16" Cable Pull-Lock with 2" Long Invisiware Receiver

Type 316, Stainless Steel	Length
CR2326-10	10'
CR2326-20	20'
CR2326-30	30'



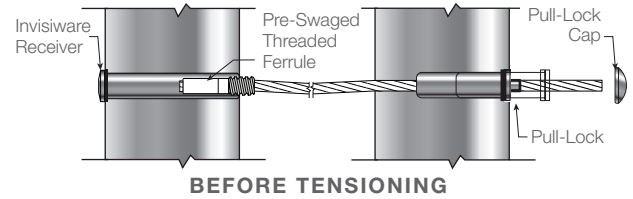
Pull-Lock Install Video



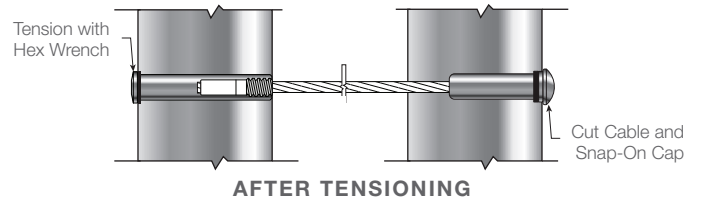
Invisiware Install Video



Make sure half of the Threaded Ferrule's threads are visible so that there is enough draw in the Receiver to properly tension the Cable.



Tension the Cable at the Receiver end then trim cable and snap on cap.



CUT-OFF TOOL

Used to cut Cable flush with the end of Pull-Lock Fittings, and to cut excess threads off stud-type tensioners. Includes mandrel and two cut-off wheels.



CABLE GRIPPING PLIERS

Locking Pliers with machined jaws to keep the Cable from turning and prevents damage to the Cable when Cable is being tensioned.



CABLE TENSIONING GAUGE

Check the tension on your Cables with this simple to use gauge.

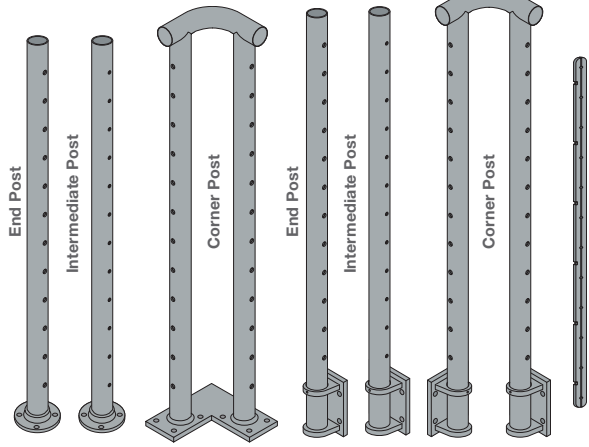
Part Number	Jawed Pliers Part Number	Part Number
CRCUTOFFKIT	CRJP	CRPTCR

CABLE RAILING POSTS

Produced from 1 1/2" Schedule 40 Pipe – 1.90" Diameter with a .145" Wall. 42" Finished Height. Use Epoxy for connections to Tees and Elbows.

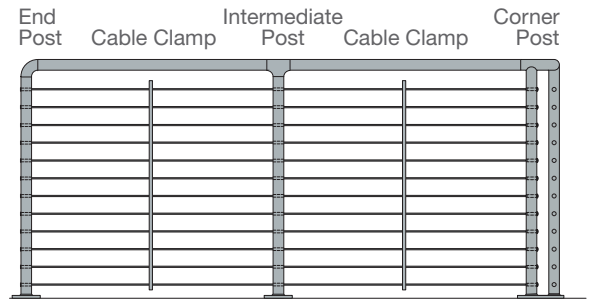
SURFACE MOUNT POSTS

FACIA MOUNT POSTS



CABLE CLAMP
Bolts onto cable to minimize Cable flex.

Satin Stainless
CRCC188-12



In order to meet load requirements, these Posts should be spaced 4 to 5 feet on center with a Cable Clamp inserted at the mid-point between Posts. With this configuration, Cables need to only be tensioned to 200 lbs. The system will only be as strong as the structure to which it is attached. You may need reinforcement in your existing structure to assure performance.

POST TYPE	MOUNT	CABLE LINES	SATIN FINISH TYPE 304 STAINLESS STEEL
Corner Post	Fascia Mount	12	CR190SS42CF
Intermediate Post	Fascia Mount	12	CR190SS42LF
End Post	Fascia Mount	12	CR190SS42EF
Corner Post	Surface Mount	12	CR190SS42CS
Intermediate Post	Surface Mount	12	CR190SS42LS
End Post	Surface Mount	12	CR190SS42ES

SNAP-ON COVER FLANGE

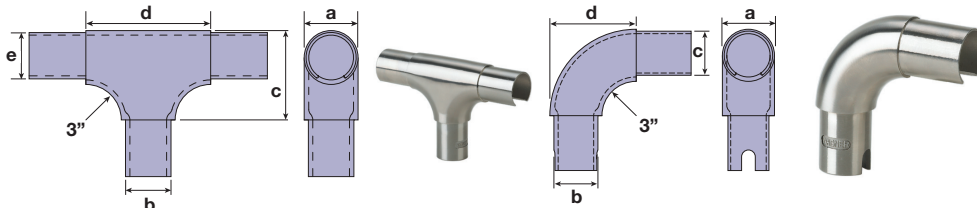
18 Gauge. 4 1/2" Diameter. Use to cover Flanges on Surface Mount Posts.



Satin Stainless
2077

CAST ELBOWS AND TEE

These cast Stainless Steel Fittings are designed to permit weld-free assembly of Wagnerail systems. Components are joined to Top Rail and Posts using Epoxy.



TEE

This Tee is used at the top of intermediate posts to transition the thinner walled 1 1/2" Schedule 5 Pipe into a 1 1/2" Schedule 40 Pipe Post. Use Epoxy for connections.

Pipe Size	a	b	c	d	d	Satin Stainless
1 1/2"	1.900"	1.610"	3.150"	4.440"	1.770"	GR3190T

RADIUS POST ELBOW

This Elbow is used to transition the thinner walled 1 1/2" Schedule 5 Pipe into a 1 1/2" Schedule 40 Pipe Post. Use Epoxy for connections.

Pipe Size	a	b	c	d	Satin Stainless
1 1/2"	1.900"	1.610"	1.770"	3.150"	GR3190PT

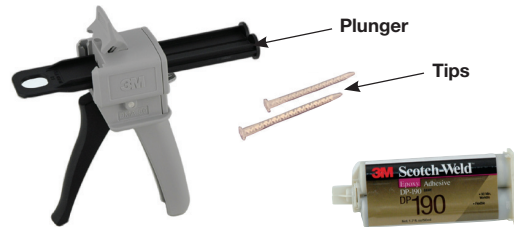


RAILING SPLICE

Aluminum for use with Stainless Steel.

Pipe Size	Schedule	Tube OD	Tube ID	Length	Extruded Aluminum
1 1/2"	5	1.90"	1.78"	4"	GR3190S

Ribbed outer surface. Attach using Epoxy.



3M™ SCOTCH-WELD™ EPOXY

Applicator Gun with Plunger, One 50ml Epoxy and 2 Tips **EPX100**

One 50ml Epoxy Cartridge Refill and 2 Tips **EPX100R**

Plunger **EPX100P**

1. Abrade the inside wall of the Pipe.
2. The areas to be joined should be cleaned thoroughly.
3. Mix 3M™ Scotch-Weld™ Epoxy according to package directions – mix only enough that you can use within 1/2 hour.
4. Apply Epoxy to inside surface of Pipe.
5. Insert Splice Sleeve or Cast Elbow/Tee Splice into Pipe.
 - a. For Splice Sleeves, compress with lock-grip pliers then slip into the Pipe.
 - b. For Cast Elbow or Tee, abrade internal splice portion of fitting and slide into Pipe.
6. Wipe off excess Epoxy after components are properly joined.
7. The areas connected together should be left undisturbed for eight hours – longer in cold weather. Be sure to strap or bind components to eliminate movement. A Cable Assembly may be used for this purpose.
8. After Epoxy is set, install other Cables and tension to 200 lbs.

