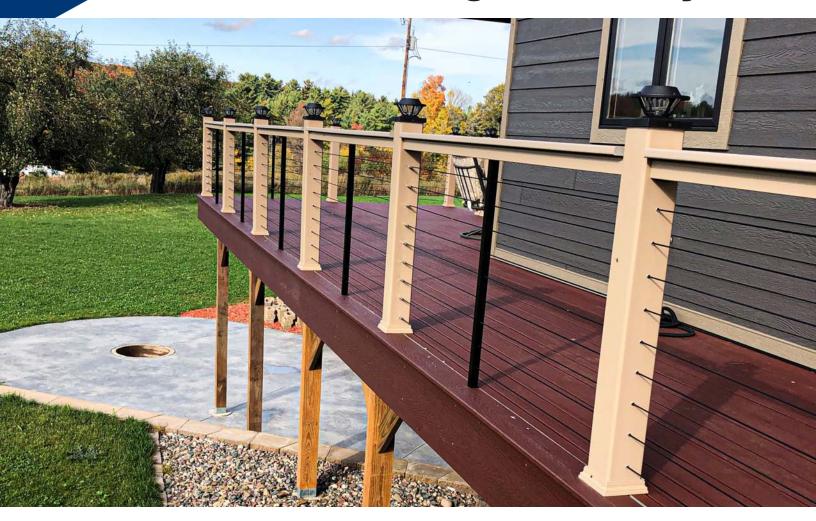
# Cable Railing Hardware

# **Deck Railing Made Easy**



Step 1



Fully seat wire rope.

Step 2



Tighten cone onto receiver.

Step 3



Rotate body to tension.

800.431.3095 | info@fehr.com



### **RAILEASY™ TENSIONER**

The RailEasy™ Tensioner features mechanical swaging capabilities that allow installers to cut cable on site, removing the hassle of pre-measuring and the cost of miscalculating dimensions. Each tensioner is made up of durable, corrosion resistant marine grade stainless steel.





FEHR BROS. INDUSTRIES, INC. www.fehr.com

### Step 1



Fully seat wire rope.

# Step 2

Tighten cone onto receiver. Rotate body to tension.

#### **Multiple Designs FEATURES & BENEFITS**

Patented RailEasy™ Tensioners are designed to handle any

and angled rails.

Step 3

indoor or outdoor application.

### **Slotted Base**

Each tensioner is capable of accomodating angles to 45 degrees up, down, or side to side, making it perfect for stair applications.

# 800.431.3095 | info@fehr.com





### S0980-L004 & -R004 RAILEASY™ LAG STUD

The RailEasy™ Lag Stud is used on straight runs with a RailEasy™ Tensioner to ensure cable tautness. They are available with a left hand or right hand thread and are pre-drilled and fastened into the post.



### S0980-0004 - RAILEASY™ STUD ASSEMBLY

The RailEasy™ Stud Asse mbly is used on straight runs and angles by drilling through the post and fixing it to the back side. The assembly is tensioned by tightening the locking nut and cutting off the excess thread, leaving 1/4" to 3/8" in order to fit the acorn nut.



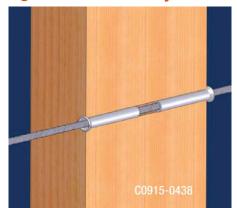
### S0915-0438 - RAILEASY™ FLUSH FITTING

The RailEasy™ Flush Fitting is perfect for architectural cable railing applications where "through post" hardware is desired. These fittings feature a self-locking mechanism that holds the cable in place. The RailEasy™ Flush Fitting is a fixed termination point and must be used in conjunction with a RailEasy™ tensioning device at the opposite end of each cable run. Affix a Deluxe or HandiSwage™ Cover Nut Set (sold separately) t C0981-P004-C o the end for a finished look.



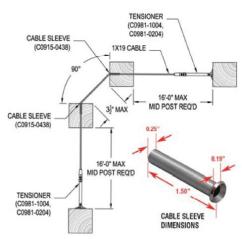
## RAILEASY™ CABLE SLEEVE

Use the cable sleeve to accommodate angles up to 90 degrees and stairways coming off a straight run.



### S0915-0438 - RAILEASY™ CABLE **SLEEVES**

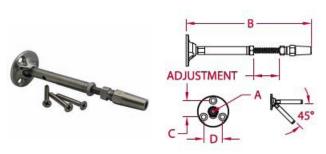
The RailEasy™ Cable Sleeve is designed to protect wood posts from chafing and incidental damage from the cables rubbing around the outside of your mid post cable holes. It can also be used to accommodate angles up to 90 degrees and stairways coming off a straight run (see cable sleeve illustration). The cable sleeves are made from marine grade, type 316, stainless steel for maximum durability and corrosion resistance. To install, drill a 1/4" hole and tap in the cable sleeve for a snug fit.







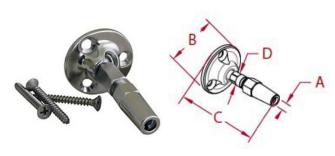
# For 5/32" Cable



RAILEA	RAILEASY™ TENSIONER - FLAT - 316 STAINLESS STEEL									
ITEM	A (WIRE SIZE)	В	С	D	ADJ	FAST	QTY.	WT(LBS)		
S0981-0004	5/32"	5.40"	0.78"	0.90"	1.35"	#8	1	0.16		

#### NOTE:

Patented tensioner is used for cable railing applications. Slotted base allows for angles up to 45 degrees and is used at either end of cable runs. Compression fitting allows for tensioning with simple hand tools. Flat base can be fixed on any level surface at any orientation and stays fixed while allowing the body to rotate during tensioning of cable.

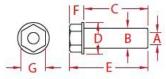


RAILEASV™ SWIVEL END - FLAT - 316 STAINLESS STEEL           ITEM         A (WIRE SIZE)         B         C         D         FAST         QTY.         WT(LB           S0981-S004         5/32"         1.50"         2.64"         0.44"         #8         1         0.12					STEEL			
	ITEM	A (WIRE SIZE)	В	С	D	FAST	QTY.	WT(LBS)
	S0981-S004	5/32"	1.50"	2.64"	0.44"	#8	1	0.12

#### NOTE

Patented swivel end is used for cable railing applications. Swivel end is used in conjunction with RailEasy™ Tensioner (S0981-0004) in order to tension cable. Slotted base allows for angleS up to 45 degrees and is surface mounted with three #8, 1-1/2" stainless steel screws (not supplied).

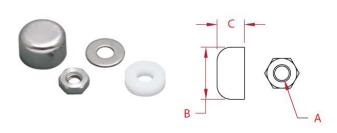




KAILEAS	RAILEAST FLOSH FITTING - 316L STAINLESS STEEL										
ITEM	A (WIRE SIZE)	В	С	D	E	F	G	QTY.	WT(LBS)		
2 PACK S0981-P004-2	5/32"	0.37"	1.16"	0.57"	1.42"	0.26"	0.44"	2	0.06		

#### NOTE:

The RailEasy™ Flush Fitting is perfect for architectural cable railing applicationswhere "through post" hardware is desired for minimal obstruction. Self-locking mechanism holds cable in place. A tensioning device must beused at the opposite end of the cable run. Affix a Deluxe or HandiSwage™ Cover Nut Set (sold separately) to the end for a finished look.



DELUXE	DELUXE COVER NUT SET - 316 STAINLESS STEEL										
ITEM	A (THREAD)	В	С	THREAD		QTY.	WT(LBS)				
2 PACK C0307-U007-2	1/4"	0.75"	0.44"	Right Hand/UNF		2	0.05				

#### NOTE:

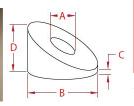
Designed for use with HandiSwage™ Studs and RailEasy™ Stud Assembly. Stainless Nut Sets are perfect for cable railing systems where "throughpost" hardware is desired for minimal obstruction. Affix to end of stud for a finished look. Requires HandiSwage™ Combination Wrench Set.

# Cable Railing Hardware

# For 5/32" Cable



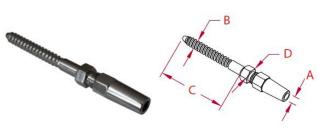




# RAILEASY™ 30 DEGREE SPACER - 316L STAINLESS STEEL ITEM A (WIRE SIZE) B C D QTY. WT(LBS) 2 PACK C0841-0030-2 1/4" 0.75" 0.07" 0.50" 2 0.07

#### NOTE:

Use in conjunction with the RailEasy™ Stud Assembly or HandiSwage™ Studs to achieve angled cable runs on stairs. Install one of our cover nut options (sold separately) on the end of the threaded stud for a finished look.



## RAILEASY™ LAG STUD - 316L STAINLESS STEEL

	ITEM	A (WIRE SIZE)	В	С	D	THREAD	QTY.	WT(LBS)
2 PAG	C0980-R004-2	5/32"	0.28"	2.25"	0.44"	Right Hand	2	0.05

#### NOTE:

Patented lag stud is used for cable railing applications. Stud is used on straight run with a RailEasy™ Tensioner to ensure cable tautness. Installation Involves pre-drilling of posts and requires only simple hand tools.



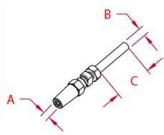
### RAILEASY™ STUD ASSEMBLY - 316L STAINLESS STEEL

	ITEM	A (WIRE SIZE)	В	С	D	QTY.	WT(LBS)	
2 PACK	C0980-0004-2	5/32"	1/4"-28	4.50"	1.50"	2	0.25	

#### NOTE:

Patented tensioner is used for cable railing applications. Assembly is used on straight and angled (30 Degree Stair Spacer is availiable for angles) runs by drilling through the post and fixing it to the back side. Tighten lock nut to tension and cut off excess thread to fit acorn nut.





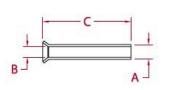
# RAILEASY™ STUD - 316 STAINLESS STEEL

ITEM	A (WIRE SIZE)	В	С		QTY.	WT(LBS)
S0980-0003	5/32"	1/4"-28	1.75"		1	0.05

#### NOTE:

Patented tensioner stud is used on one side of a cable railing application. A RailEasy™ Tensioner (S0981-0004) is needed at the other side for tensioning capabilities. Stud is UNF threaded.





### RAILEASY™ CABLE SLEEVES - 316 STAINLESS STEE

	IT	ЕМ	A	В	С		QTY.	WT(LBS)	
10 PACE	•	C0915-0438	0.25"	0.19"	1.50"		10	0.09	

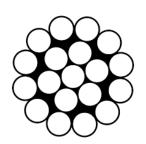
#### NOTE:

The RailEasy™ Cable Sleeve is designed to protect your wood posts from chafing and incidental damage fom cable rubbing around the outside of your mid post cable holes. It can also be used to accommodate angles up to 90 degrees and stairways coming off a straight run.



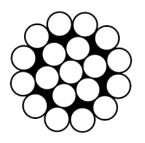
# Fehr Bros. Industries Railing Cable





WIRE ROPE 1X19 - 5/32" 316 STAINLESS STEEL										
ITEM	SIZE	SPOOL	BREAKING STRENGTH (LBS)	WT (LBS)						
2T19156-00100	5/32"	100ft	2800	6.0						
2T19156-00250	5/32"	250ft	2800	15.0						
2T19156-00500	5/32"	500ft	2800	30.0						
2T19156-01000	5/32"	1000ft	2800	60.0						
2T19156-05000	5/32"	5000ft	2800	300.0						

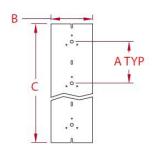




WIRE ROP	WIRE ROPE 1X19 - 5/32" Black Galvanized										
ITEM	SIZE	SPOOL	BREAKING STRENGTH (LBS)	WT (LBS)							
2G1B156-00100	5/32"	100ft	3300	5.5							
2G1B156-00250	5/32"	250ft	3300	13.75							
2G1B156-01000	5/32"	1000ft	3300	55							
2G1B156-05000	5/32"	5000ft	3300	275							





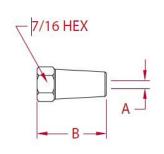


RAILEASY	RAILEASY™ DRILLING TEMPLATE - ALUMINUM										
ITEM	A	В	С				QTY.	WT(LBS)			
S0988-1000	3.00"	3.50"	24.00"				1	0.19			

#### NOTE:

Drilling template allows for easy installation of RailEasy<sup>™</sup> cable railing systems. Cable runs are spaced 3" on-center for either a 36" or 42" height railing system. Hole pattern designed specifically for mounting tensioners on end/ corner posts and for drilling "through-holes" in mid posts.



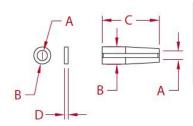


RAILE	RAILEASY™ CONES - 4 PACK - 316 STAINLESS STEEL									
ITEM		A	В					QTY	WT(LBS)	
4 PACK	S0980-0002-4	0.22"	1.11"					4	0.08	

#### NOTF.

Tensioner cone is where the brass spacer and aluminum wedge are housed. 4 Pack does not Include spacers and wedges. Weight listed above is for complete 4 Pack.



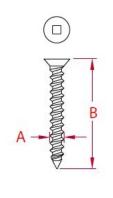


RAILEASY™ WEDGES- 10 PACK - 316 STAINLESS STEEL							
	ITEM	A	В	С	D	QTY.	WT(LBS)
10 PACK	S0980-0001-10	5/32"	0.28"	0.85"	0.06"	10	0.01

#### NOTE:

Includes 10 spacers and 10 wedges. Components are located in the cone of each tensioner. Weight listed above is for complete 10 pack.





RAIL V	RAIL WOOD SCREW - 316L STAINLESS STEEL							
	ITEM	SIZE	Α	В	TYPE	QTY	WT(LBS)	
10 PACK	S0917-0538-10	#8	0.16"	1.50"	Square	10	0.06	



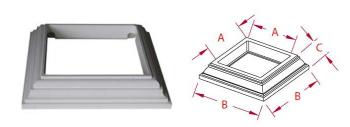
# **Tubing & Railing Accessories**



RAILEASY™ COLONIAL POST CAP - VINYL								
ITEM	A	В	С					WT(LBS)
S0984-0000	4.03"	6.00"	2.75"					0.70

#### NOTE:

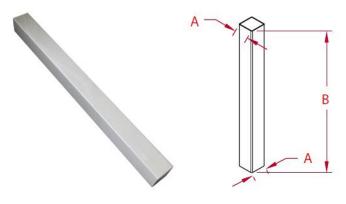
Standard cap dimensioned to fit over RailEasy $^*$  Sleeve. Post cap is constructed of durable white vinyl.



RAILEASY	RAILEASY™ COLONIAL POST BASE - VINYL							
ITEM	A	В	С					WT(LBS)
S0984-0001	4.03"	6.00"	1.42"					0.20

#### NOTE:

Standard post skirt dimensioned to fit over RailEasy™ Sleeve. Post skirt is constructed of durable white vinyl. Always install the post skirt over sleeve at the base first before installing the railing sections.



RAILEASY	RAILEASY™ SLEEVE - VINYL								
ITEM	SIZE	A	В					WT(LBS)	
S0983-1000	4" x 4"	4.00"	48.00"					5.00	

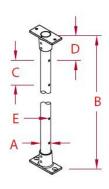
### NOTE:

Accent RailEasy™ Systems with vinyl post sleeves, designed to fit over 4"x4" wood posts. Wall thickness is approximately 1/8".



# **Tubing & Railing Accessories**



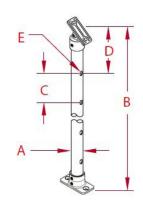


CABLE STA	CABLE STABILIZER KIT - 316 STAINLESS STEEL								
ITEM	A	В	С	D	E			WT(LBS)	
S0950-0060	1"	42.00"	3.00"	3.00"	0.22"			2.90	

#### NOTE:

The Cable Stabilizer Kit is designed specifically for use where post to post measurement spans over 4'. It enables you to adapt longer spans to code compliancy by stabilizing the deflection of cable between posts. Each kit comes with a 42" stanchion pre-drilled to work with our standard 3" spacing. In most cases, stanchions must be field cut at both ends for an accurate fit. The Cable Stabilizer Kit cannot be used to replace the use of substantial mid posts and should never be used in spans over 7'. Kit includes fasteners.

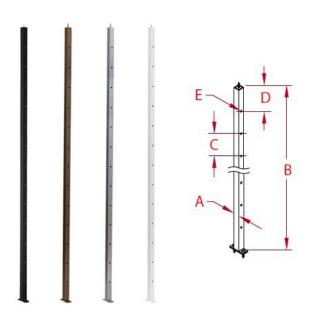




CABLE STABILIZER STAIR KIT - 316L STAINLESS STEEL								
ITEM	Α	В	С	D	E			WT(LBS)
S0950-0060	1"	42.00"	3.00"	3.00"	0.22"			2.90

#### NOTE:

The Cable Stabilizer Stair Kit is designed specifically for stairs where post to post measurement spans over 4'. It enables you to adapt longer spans to code compliancy by stabilizing the deflection of cable between posts. Each kit comes with a 42" stanchion pre-drilled to work with our standard 3" spacing. In most cases, stanchions must be field cut at both ends for an accurate fit. The Cable Stabilizer Stair Kit cannot be used to replace the use of substantial mid posts and should never be used in spans over 7'. Kit includes fasteners.



ALUMINUM CABLE STABILIZER KIT - ALUMINUM							
ITEM	Α	В	С	D	E	COLOR	WT(LBS)
A0908-BK60	0.76"	42.00"	3.00"	3.00"	0.22"	Black	0.91
A0908-WH60	0.76"	42.00"	3.00"	3.00"	0.22"	White	0.91
CABLE GROMMET*	CAB	BLE	H	IOLE SIZE		QUAN	TITY
C0916-A003	1/8	3"		7/32"		25	5
C0916-0004	5/3	2"		7/32"		25	5

#### NOTE:

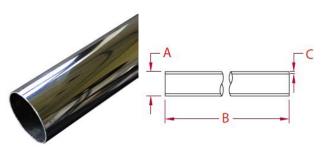
DO NOT INSTALL WITHIN 1 MILE OF SALT WATER.

Stabilizer kit is designed specifically for use where post to post measurement spans over 4'. Each kit comes with a 42" stanchion, mounting hardware, 3" hole spacing and fasteners. Cut at both ends for an accurate fit. Kit cannot be used to replace the use of a substantial mid post and should never be used in spans over 7'.

<sup>\*</sup>GROMMETS REQUIRED FOR INSTALL.

# Cable Railing Hardware

# **Tubing & Railing Accessories**



RAILEASY™ TUBING - 316L STAINLESS STEEL								
ITEM	SIZE	Α	В	С		WT(LBS)		
	POUSHED - STANOARD LENGTHS							
C0973-0900	2"x 36"	2.00"	36.00"	0.062"		4.02		
C0973-1200	2" x 48"	2.00"	48.00"	0.062"		5.36		

#### NOTE.

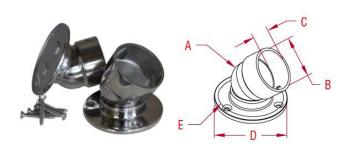
Stainless steel tubing is type 316L. Standard lengths of 3 feet, 4 feet and 5 feet are used as top and bottom rails for the RailEasy™ and SunRailTM systems. Tubing is available in a highly polished or brushed finish.



RAILEASY™ STRAIGHT SIDEMOUNT - 316L STAINLESS STEEL							
ITEM	SIZE	Α	В	С	D	FAST.	WT(LBS)
POLISHED - 2 PACK C0975-0002	2"	2.02"	3.50"	1.23"	2.88"	#10	1.01

#### NOTE:

Standard post skirt dimensioned to fit over RailEasy™ Sleeve. Post skirt is constructed of durable white vinyl. Always install the post skirt over sleeve at the base first before installing the railing sections.



RAILEASY™ ADJUSTABLE SIDEMOUNT - 316L STAINLESS STEEL							
ITEM	SIZE	Α	В	С	D	FAST.	WT(LBS)
POLISHED - 2 PACK C0976-0002	2"	2.00"	2.01"	1.00"	3.50"	#10	3.13

#### IOTE:

Patented design can accept any angle up to 45 degrees in one of four directions, while keeping the perpendicular directions immovable.

Tube is placed inside mount, therefore the ends can be cut on-site; no precision cutting is required. Set screws are included to lock tubing and to prevent turning. Fasteners are included in the 2 pack.

# Cable Railing Hardware

# Fehr Bros. Industries Cable Cutters



8" HANDLES							
ITEM	CAPACITY	WT (LBS)					
TRC8	1/64" - 1/8"	0.75					



13" HANDLES								
ITEM	CAPACITY	WT (LBS)						
THWC-9	11/32"	2						



20" HANDLES									
ITEM	CAPACITY	WT (LBS)							
THWC-12	1/2"	3.75							

# **Superior Quality / Great Savings**



# PAIL EASY

# **MEASURING**

# HOW TO MEASURE FOR RAILEASY™ SYSTEMS

Please use this sheet as a guide to create a preliminary parts list. For project assistance contact Fehr at (800) 431-3095.

# STEP 1 - Select a railing model

Based on the available selections, choose a model.

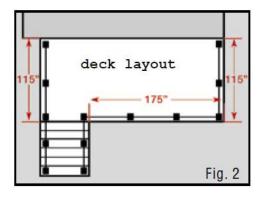
# deck layout

# STEP 2 - Sketch your project

Sketch your project to scale. Start from the left and measure from each end to the next end or corner (Figure 1). Please note the type of surface the railing system will be mounted on. If using posts other than those supplied by Atlantis Rail, take care to indicate the location on the sketch (Figure 2).

**Post and Rail Mounting Surfaces Note:** Atlantis Rail Systems provides a variety of mounting options for posts and rails used in our systems. Products of this nature require that mounting surfaces are constructed to be considered

structural per building code definition for the surface material used. Structural integrity and building code compliance of mounting surfaces are the responsibility of the end user and / or installer. The use of any of our mounting methods are at the option and decision of the end user and /or installer and should be selected to match the structural material used to create the mounting surface.



# STEP 3 - Determine how many railing sections are required

Number each railing section (Figure 4) on your sketch beginning at the farthest section to the left and moving right. Atlantis Rail Systems recommends staying within 4' section lengths for code compliance and to maintain structural integrity.

# STEP 4 - Determine the required rail height of each section

Railing sections are offered in standard heights of 36" and 42". Custom heights are available upon request. Refer to your local building codes and note the required rail height for your project.



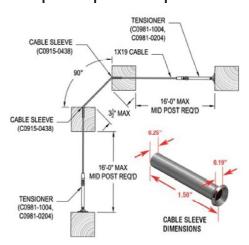
# PAIL EASY"

# **GUIDE**

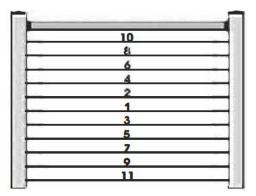
### **DESIGN CONSIDERATIONS**

The patented RailEasy™ Cable Railing System is designed to be used with existing or new wood (or in some cases, metal) posts. Make sure that all post material and attachments (rails) are constructed of approved materials per yolll' local building code. Most building departments have a simple set of deck building criteria that are easy to follow. For commercial projects, the requirements may be different and the building department should be consulted.

For cable sections using
the RailEasy™ Cable Sleeve
to accomodate a corne,
thespecifications are as follows
(mid post required as specified).



Follow the recommended tensioning sequence bdow to ensure proper installation and to achieve optimal results.



# **CODE COMPLIANCY**

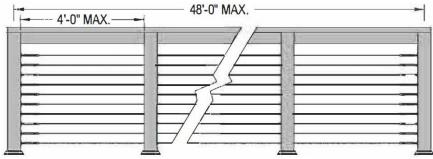
Questions are often raised regarding horiwnral railings and their use in residential applications. In 2001, the ICC removed the "ladder effect" restriction on horiwnral railings and the questions of safety were revisited in a three year study, concluded in 2008. The ICC concluded that the most current documentation shows no indication that a problem exists with climbable guard rails and that there has not been sufficient justification established to mandate a higher level of climbability restriction on guard rails than what is currently required in the 2006 ICC codes. In summary, the current ICC developed codes (the International Building Codes) does not prohibit climbable or horizontal railings.

ALWAYS REFER TO YOUR LOCAL BUILDING CODE OFFICIAL PRIOR TO INSTALLING ANY ATLANTIS RAIL SYSTEM TO ENSURE ALL CODE AND SAFETY REQUIREMENTS ARE MET. ATLANTIS RAIL SYSTEMS IS NOT RESPONSIBLE FOR IMPROPER OR NON-RECOMMENDED INSTALLATIONS.

# **Post Construction & Configuration**

### **End Posts and Corner Posts**

A key factor in any successful deck rail application is always the attachment of the post to the decking. Municipal building departments usually provide specific drawings and examples of preferred post attachment methods. Substantial end and comer posts are always necessary to prevent the posts from bending under the cable tension. If post material is not strong enough to withstand tension, it may cause the post to bow and the cables to sag. A minimum 4x4 (3-1/2" square) post is required. RailEasy $^{\text{TM}}$  fittings are required on each end of a cable run.



### **Mid Posts**

Mid posts should be placed at intervals between end or comer posts as frequently as necessary to meet building code requirements. We recommend intermediate posts be placed every 4 feet to maintain cable spans with minimum deflection. Never exceed a spacing of 60" between posts. For each foot over 4 feet that you run cable, you must move your cable 1/4" closer together. For example, the cable spacing would be 2-3/4" for a cable span of 5 feet. If you wish to maintain 3" spacing for cable sections that span over 5 feet, we offer a Cable Stabilizer Kit made from I" stainless steel tubing. The stabilizer bar is mounted with simple brackets and will minimize cable deflection.

### Rails

A top rail is always necessary when building a wood railing with cable railing infill. The top rail should always be installed to absorb and deflect the pressure applied when cable is tensioned. It is highly recommended to secure the top rails between the post rather than simply placing the rail on top of the posts. The addition of bottom rails will provide more support to any railing system and they allow for a foot rest when leaning on the railing.

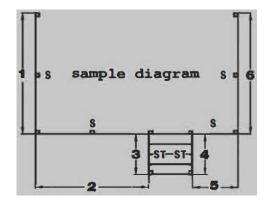


# PAHL EASY<sup>M</sup>

# PROJECT PLANNER

# **GETTING STARTED**

# STEP-BY-STEP ORDERING



### Sketch your project

Sketch your project to aid in the process of ordering your cable railing system. Indicate the location of the rails and the posts on the deck and any stairs. Number each cable section on your project sketch. Note: A "cable section" is the total length between end posts and comer posts, as well as, the total length between top and bottom stair posts.

ALWAYS CONSULT
YOUR LOCAL BUILDING CODE

# STEP 1- Determine the type of cable section

A "cable section" is the total length between end posts and comer posts, as well as, the total length between top and bottom stair posts (refer to sample diagram). Using this key, label the sections accordingly in the "Step 1" column of the chart below.

S = Straight

C = Greater than 45 degree angle

CA = Less than 45 degree angle

ST= Stairway

### STEP 2 - Measure your cable sections

Record each cable section length in the "Step 2" column of the Easy Ordering Chart below.

Maximum length for a section is 48 FEET.

Sections over 48 FEET must be split.

# STEP 3 - Determine the number of cable rows and components needed

Measure the distance from the top of your bottom rail or deck to the bottom of your top rail in inches. Divide that measurement by 3, round down to the nearest whole number and subtract 1.

Example: A 36" high railing with 34" between deck and bottom of top rail.

34 divided by 3=11.33, round to 11-1 =10 rows

### STEP 3 - Continued

Record railing height and the number of rows in the first two fields on the Easy Ordering Chart. Based on the notation below, determine which components are fit for your job and record them in "Step 3" of the chart.

**Note:** Straight sections over 25 feet require RailEasy™ Tensioners at both ends. Straight sections less rhan 25 feet may use a RailEasyrn Swivel fitting at one end. Stairway railings should use a RailEasy™ Swivel fining or RailEasy™ Cable Sleeve at top post.

### **SELECTING CABLE COMPONENTS**

**Tensioner** - Straight sections greater than 25 feer require tensioners at both ends. Straight sections less than 25 feet use a tensioner at one end with a swivel end at the other.

**Swivel** - Swivel end is designed for use in short runs and straight sections less than 25 feet with a tensioner at the other end. Do nor use swivel ends at each end of a cable section.

**Cable Sleeve** - Stainless cable sleeves are used to accomodate cable sections with mid posts angled less than 90 degrees. Stair railing may use a sleeve at the top post when there is a straight transition from a straight section into a stair section.

# Cable Railing Hardware

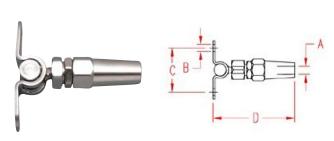
# **Quick Attach Fittings**



QA™ STUD & WALL MOUNT - 316 STAINLESS STEEL											
ITEM	A (WIRE SIZE)	B (THREAD)	С	D	E	F	WT(LBS)				
S0766-0703	1/8"	1/4"	4.20"	6.75"	0.25"	1.58"	0.25				
S0766-0704	5/32"	1/4"	4.20"	6.75"	0.25"	1.58"	0.27				
S0766-0905	3/16"	5/16"	4.40"	7.30"	0.31"	1.75"	0.50				
S0766-1007	1/4"	3/8"	4.90"	8.00"	0.38"	2.00"	0.74				

### NOTE:

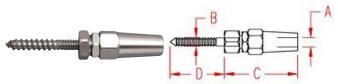
MECHANICAL SWAGE FITTING ALLOWS VERY FAST ATTACHMENT TO ANY TYPE OF CABLE (1X19, 7X19, OR 7X7) USING ONLY SIMPLE TOOLS. WLL IS DETERMINED BY WLL OF WIRE USED.



QUICK ATTACH™ WALL TOGGLE - 316 STAINLESS STEEL											
ITEM	A (WIRE SIZE)	B (THREAD)	С	D			WT(LBS)				
S0779-0703	1/8"	1/4"	1.58"	2.00"			0.10				
S0779-0704	5/32"	1/4"	1.58"	2.25"			0.12				
S0779-0905	3/16"	5/16"	1.75"	2.75"			0.22				
S0779-1007	1/4"	3/8"	2.00"	3.50"			0.35				

### NOTE:

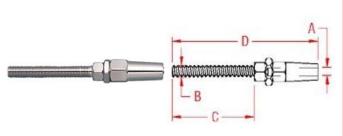
MECHANICAL SWAGE FITTING ALLOWS ATTACHMENT TO A FLAT SURFACE WITH AUGNMENT THROUGH 160  $^{\circ}$  +/- VERY FAST AND SIMPLE ATTACHMENT TO CABLE (1X19, 7X19, OR 7X7). WLL IS DETERMINED BY WLL OF WIRE USED.



QUICK ATTACH™ WOOD STUD - 316 STAINLESS STEEL										
ITEM	A (WIRE SIZE)	B (THREAD)	С	D			WT(LBS)			
S0777-0703	1/8"	1/4"	1.46"	1.25"			0.11			
S0777-0704	5/32"	1/4"	1.68"	1.25"			0.13			
S0777-0905	3/16"	5/16"	2.02"	1.50"			0.24			

### NOTE:

MECHANICAL SWAGE FITTING ALLOWS VERY FAST AND SIMPLE ATTACHMENT OF CABLE (1X19, 7X19, OR 7X7) TO WOOD USING ONLY SIMPLE TOOLS. WLL IS DETERMINED BY THE TYPE OF WOOD USED IN THE APPLICATION.



QUICK #	QUICK ATTACH™ STUD - 316 STAINLESS STEEL											
ITEM	A (WIRE SIZE)	B (THREAD)	С	D			WT(LBS)					
		UNF	RIGHT HA	ND								
S0771-0703	1/8"	1/4"	1.85"	3.35"			0.11					
S0771-0704	5/32"	1/4"	1.85"	3.62"			0.13					
S0771-0904	5/32"	5/16"	2.25"	4.00"			0.15					
S0771-0905	3/16"	5/16"	2.25"	4.37"			0.21					
S0771-1005	3/16"	3/8"	2.48"	4.60"			0.23					
S0771-1007	1/4"	3/8"	2.48"	5.04"			0.33					



# PAIL EASYM

# Cable Railing System utilizing Hand Swage Fitting and 1/8" Cable

Atlantis Rail's HandiSwage<sup>TM</sup> System is an easy to use cable railing product utilizing fittings that are an adaptation of traditional swage fittings. They can be attached to cable using Atlantis Rail's hand swage tool. This system combines the aesthetic appeal, quality and durability of the RailEasy<sup>TM</sup> cable railing components with the convenience and economy of 1/8" and 5/32" cable. All HandiSwage<sup>TM</sup> components are made from grade 316L stainless steel for durability and corrosion resistance.



The HandiSwage Cable Railing System is one of the simplest and most economical cable railing systems available.

### **VERSATILITY BY DESIGN**

The HandiSwage line consists of 5 styles of hand swage fittings, 1/8" cable in a variety of stock lengths, accessories to finish off the look and easy installation tools. All the fittings are offered in a 1/8" cable size and include standard, large, and small studs, lag studs, tensioners, cable sleeves and a variety of nut sets. The HandiSwage cable is 1 x 19 strand construction to achieve lasting strength and durability.





# Cable Railing Hardware

# **Hand Swager Tool Installation Instructions**



ALWAYS WEAR APPROPRIATE
PROTECTIVE EYEWEAR AND GLOVES
WHEN WORKING WITH CABLE TO
PREVENT INJURY. ALWAYS POINT THE
TOOL AWAY FROM PEOPLE AND BE
AWARE OF YOUR SURROUNDINGS.

### Position the Swage Fitting & Cable

Place the swage stud into the proper opening on the swaging tool. Position the swage stud and leave approximately 1/8" from the end of the swage stud (*See Figure A*). Do *NOT* attempt to crimp any closer to the end of the swage stud as this could severely weaken the fitting. Insert the cable into the swage stud being sure to seat it to the full depth of the swage stud.

## **Make the First Crimp**

With the cable and swage stud both firmly in place, make the first crimp making sure that the tool closes completely around the fitting. It is very important that the swage is done properly. Under-swaging could cause the cable to slip while over-swaging can cause the swage stud to fail.

# **Check the After Swage Dimensions**

After making the first crimp, use the supplied gauge (included with the Hand Swager) to check the after swage dimension (*See Figure D*) to ensure that the crimp is done correctly. Adjust the tool accordingly before continuing per the prescribed instruction on the back page.

## **Make Second & Third Crimps**

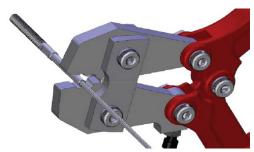
When you are satisfied that the tool is properly set up, continue on to make the second crimp. Rotating the fitting 180 degrees between crimps will help keep the terminal from bending (*See Figure B*). Make sure to leave approximately 1/8" between the previous swage. Make sure the tool closes completely to ensure the strongest swage possible. Upon completion of the second crimp, rotate the fitting back to its initial position (*See Figure C*). Leaving approximately 1/8" of space between the previous crimp, begin making the third swage.

Do <u>NOT</u> attempt to crimp closer than 1/8" from base of the terminal as this could severely weaken the fitting.

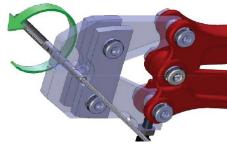
### **IMPORTANT**

**Fehr Bros.** HandiSwage line is acceptable using only 1/8" cable. For 1/8" fittings, 7x7, 7x19 or 1x19 cable construction is acceptable. The estimated holding percentage is 60-70% of cable strength.

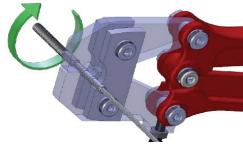
NOT FOR USE ON STANDING RIGGING OR HIGH LOAD APPLICATIONS.



**Figure A.** Begin first crimp approximately 1/8" from the edge of the swage stud.



**Figure B.** Rotate the fitting 180 degrees and leave approximately 1/8" of space between the previous crimp.



**Figure C.** Rotate the fitting back to its initial position and make the final crimp, leaving approximately 1/8" of space between the previous crimp.



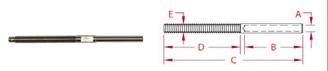


**Figure D.** Measure the fitting as shown after the first swage. Adjust the tool accordingly before completing any additional swaging.

# Cable Railing Hardware

# CONTRACTOR OF THE STATE OF THE

# For 1/8" Cable



HANDISWAGE™ STUDS - UNF 316L STAINLESS STEEL											
	ITEM	A (CABLE)	В	С	D	E (THREAD)	QTY.	WT(LBS)			
STANDARD - 2 PACK	C0731-H0703-2		1.51"	3.62"	2.00"	0.25"	2	0.07			
SHORT	S0731-HM0703	1/8"	1.51"	2.56"	0.44"	0.25"	1	0.10			



## C0841-SPACE Use in Long S

### C0841-0030-2 - "30 DEGREE STAIR SPACER (2 PACK)"

Use in conjunction with the Ha ndiSwage™ Long Stud to achieve ang led cable runs on stairs. Insta ll one of our cover nut options (sold seperately) on the end of the threaded stud for a finished look.

#### NOTE:

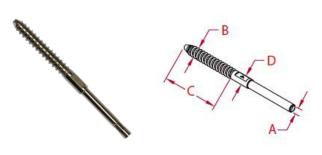
DESIGNED FOR HAND SWAGE USE ONLY. Threads are "UNF". Crimp HandiSwage" Studs onto cable using the Hand Swager.

HANDISWAGE™ LONG STUD - UNF 316L STAINLESS STEEL									
	ITEM	A (CABLE)	В	С	D	E (THREAD)	QTY.	WT(LBS)	
2 PACK	C0731-HL703-2	1/8"	4.50"	8.00"	3.5"	0.25"	2	0.18	

#### NTE:

DESIGNED FOR HAND SWAGE USE ONLY. The HandiSwage<sup>™</sup> Long Srud is perleet for archiuclural cable raillng applications where "through post" hardware is desired for minimal obstruction.

Threads are "UNF". Crimp HandlSWage<sup>™</sup> Studs onto cable using the Hand Swager {E0113-H600}.

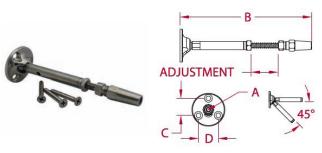


## HANDISWAGE™ LAG STUD - 316L STAINLESS STEEL

ı	TEM	A (CABLE)	В	С	D	QTY.	WT(LBS)
INDIVIDUAL	S0747-HR03	1/8"	0.28"	1.73"	0.19"	1	0.04

#### NOTE:

DESIGNED FOR HAND SWAGE USE ONLY. Threads are "UNF". The HandiSwage™ Lag Stud is designed for use In short nms and must always be used with a tensionIng devise at the opposite end of the cable run. These Fittings are made from grade 316L stainless steel for corrosion resistance and durabiliy. Crimp the lag stud on1o cable using the Hand Swager (E0113-H600).

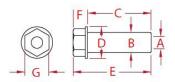


HANDI	SWAGE™	TENSI	TENSIONER - 316L STAINLESS STEEL								
ITEM		A (CABLE)	В	С	D	ADJ	QTY.	WT(LBS)			
2 PACK C0748-0003-2		1/8"	5.40"	0.78"	0.90"	1.35"	2	0.37			

#### NOTE:

DESIGNED FOR HAND SWAGE USE ONLY. The HandiSwage™ Tensioner is used in architectural cable railing applications. This tensioner is made from grade 316L stainless steel for corrosion resistance and durability, It feature a slotted base to achieve angles up to 45 degrees. Compression fitting allows tor tensioning with simple hand tools. Fasteners included.





### HANDISWAGE™ FLUSH FITTING - 316L STAINLESS STEE

ITEM	A (WIRE SIZE)	В	С	D	E	F	G	QTY.	WT (LBS)
2 PACK C0981-P003-2	1/8"	0.37"	1.06"	0.57"	1.32"	0.26"	0.44	2	0.10

#### NOTE:

The HandiSwage<sup>™</sup> Flush Cable Fitting Is perfect for architectural cable railing applications where "through post" hardware Is desired for minimal obstruction. Fitting uses mechanical swage design to attach to cable, Affix the supplied stainless steel deluxe cap to the end for a finished look.



# MADISUAGE MARCHINA CONTRACTOR OF THE PROPERTY OF THE PROPERTY

# For 1/8" Cable



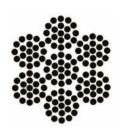
CO307-UF07-2 CO308-UF07-2



#### NOTE:

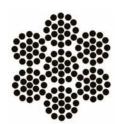
Designed for use with HandiSwage™ studs and RailEasy™ Stud Assembly. Stainless Nut Sets are perfect for cable railing systems where "throughpost" hardware is desired for minimal obstruction. Affix to end of stud for a finished look.



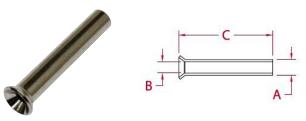


WIRE ROPE - 316 STAINLESS STEEL											
ITEM	SIZE	SPOOL	BREAKING STRENGTH (LBS)	WT(LBS)							
2T9125-00250	1/8"	250FT	1350	7.25							
2T9125-00500	1/8"	500FT	1350	14.5							
2T9125-01000	1/8"	1000FT	1350	29							
2T9125-05000	1/8"	5000FT	1350	145							





WIRE ROPE 7X19 - 1/8" Black Galvanized						
ITEM	SIZE	SPOOL	BREAKING STRENGTH (LBS)	WT (LBS		
2G9B125-00100	1/8"	100FT	2000	2.9		
2G1B125-00250	1/8"	250FT	2000	7.25		
2G1B125-01000	1/8"	1000FT	2000	29.0		
2G1B125-05000	1/8"	5000FT	2000	145.0		





	E0113-HG00 - AFTER SWAGE GAUGE
	Use this gauge to confirm that the "after
ì	swage" dimension of each HandiSwage
ı	fitting is correct. The After Swage Gauge is
J	designed to measure 1 /8" and 3/16" fittings

HANDISWAGE™ (	CABLE S	LEEV	E - 3	16 S	TAIN	ILESS S	STEEL
ITEM		_	_			OTV	WITCHES

 ITEM
 A
 B
 C
 QTY.
 WT(LBS)

 10 PACK
 C0915-0338
 0.25"
 0.19"
 0.15"
 10
 0.08

#### NTE:

The HandiSwage Cable Sleeve is designed to protect your wood posts from chafing and incidental damage from cable rubbing around the outside of your mid post cable holes. It can also be used lo accommodate angles up to 90 degrees and stairways coming off a straight run.

HAND SWA	AGER - FOR	USE WITH HAI	NDISW	AGE S	SERIE	S ONLY
ITEM	SIZE (LENGTH)	SWAGES			QTY.	WT(LBS)

1/8", 5/32" and 3/16"

#### NOTE:

E0113-H600

Make hand swaging quick and easy using our Hand Swager. Hand Swager crimps HandiSWage Studs onto 1/8" cable.

6.35



# A Square Post System With Many Options

The Spectrum System features pre-drilled square posts and fittings to surface or fascia mount the posts and mount handrails. The cable infill offers a choice between using 1/8" or 5/32" cable with HandiSwage<sup>TM</sup> Studs. You can find installation instructions at www.atlantisrail.com or by asking your Atlantis Rail Sales Representative for more information. Customers must source their own hardwood flat handrail (minimum 2" x 4"). Choose from the colors below.





Colors from top, left to right: Black, Metallic Silver, Pure White, Dark Brown, Pebble Grey and Light Brown. \*Uncoated option available upon request.

# CABLE INFILL OPTION HandiSwage™

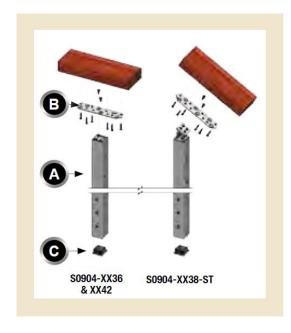
The Spectrum System is available using a 5/32" or 1/8" diameter cable and HandiSwage<sup>TM</sup> Studs, making it one of the simplest and most economical cable railingsystems available. All the studs, cable and accessories are made from electro-polished 316L stainless steel for maximum corrosion resistance and durability. For a finished look, we offer a variety of cover nut sets including multiple styles and colors.

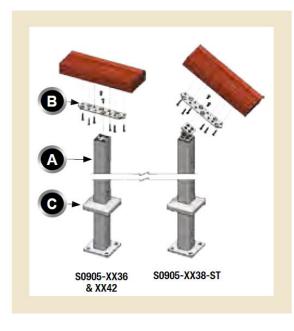


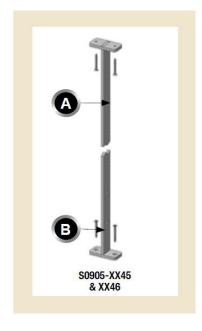




# **SPECTRUM SYSTEM**







# FASCIA MOUNT POST KIT COMPONENTS

- A. Spectrum Square Post
- B. Top Mounting Plate Assembly
- C. Plastic Bottom Cap

NOTE: Fascia mounting fasteners & hardware sold seperately.

# SURFACE MOUNT POST KIT COMPONENTS

- A. Spectrum Square Post
- B. Top Mounting Plate Assembly
- C. Base Cover

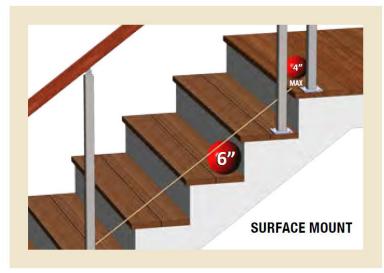
NOTE: Surface mounting fasteners & hardware sold seperately.

# CABLE STABILIZER KIT COMPONENTS

- A. Spectrum Cable Stabilizer
- **B. Wood Screws**

NOTE: Use with surface mount Spectrum posts only.







# **SPECTRUM ACCESSORIES**

# ADA HANDRAIL MOUNTING BRACKET

The ADA Handrail Mounting Bracket features a clamp that fits onto a Spectrum post and allows for the attachment of rail end and mid support fittings. These supports accept a 1-1/2" stainless steel tube which enables the Spectrum System to be ADA compliant. The clamp is powdercoated to match the post color.

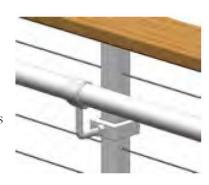
### REINFORCING CHANNEL

This channel is used in applications where the handrail needs additional structural reinforcement. It fits over the Top Mounting Plate Assembly and the screws can be mounted through the slots running the length of the channel and into the handrail. The Reinforcing Channel is powder-coated to match the post color and available in 48" lengths and can be cut to size. The 36" surface mount post requires a spacing block (\$0904-XX58\*). Spacing block sold separately with fasteners.

We do not recommend the use of artificial lumber. Use at the installer/end users' own risk.

### WIDE MOUNTING PLATE

The Wide Mounting Plate is twice the width of the standard mounting plate and is used in applications where a wider top rail is desired. The plate is powder-coated to match the post color. Additional wood screws are included.



\$0904-XX60\* (clamp) & \$0901-0401 (rail mid support)



S0904-XX54\*



S0904-XX53\*

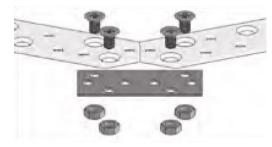
\* "XX" in the part number is the color designation. Replace with "BK" for black, "MT" for metallic silver, "WH" for white, "BR" for dark brown or "SP" for one of the special colors.



Top Mounting Plate Assembly

(fasteners included)

This assembly allows for the easy installation of a customer supplied flat top rail. Each plate is precision machined with matching hole patterns for easy installation to posts and handrails. A stainless plate is fastened to the post and wood screws are then drilled up into the top rail.



## Corner Mending Plate Set - S0904-XX51\*

(fasteners included)

This set is used to join Top Mounting Plate Assemblies on corner posts. The hole patterns match those of the Mounting Plate and attach using the 1/4" screws and nuts.



The mounting plates feature angled ends which allow installers to meet 90° or 135° angles at corners. Corners require double posts.



The base cover can be added once the surface mount post is secured for a finished look.



**PRICES:** Prices are subject to change without notice. Invoices are based upon prices in effect at time of order. Check our website for up to date pricing. Fuel surcharges may apply.

**TERMS OF PAYMENT:** VISA, MasterCard, AMEX and Discover accepted. Net Cash 10 days for approved accounts.

MINIMUM INVOICE: \$50.00, FOB Saugerties, NY

**LATE CHARGE:** A late charge of 1.5% per month is added to accounts over sixty (60) days from date of invoice.

**RETURNED CHECKS:** A \$30.00 fee is charged for returned checks.

**FREIGHT POLICY:** All shipments are FOB warehouse. Freight Collect or Prepay and Add. Call 800.431.3095 to inquire about our Prepaid Freight Policy. Fehr Bros. Industries, Inc. reserves the right to ship by carrier of our choice. Policy subject to change.

COD fees, redelivery, inside delivery, lift gate, call for appointment, over length, residential delivery, airfreight charges and any other special handling or packaging charges are the responsibility of the customer.

Bills of lading must be signed with exception for missing goods or exposed damages. Freight claims for damaged or missing materials are the responsibility of the buyer. All cartons must be inspected for concealed damage or shortage upon receipt. Claims must be submitted to the carrier within five (5) business days.

**RETURNS:** Fehr Bros. wants you to be 100% satisfied with our products and service. Merchandise in its original condition may be returned for credit within thirty (30) days of receipt of material. Our Customer Service Department will provide a Return Material Authorization (RMA) form and number on request. Affix the RMA number labels to the outer carton and return the form with the material, freight paid, to the warehouse indicated on the RMA instructions. Call 800.431.3095.

A restocking fee of 15% plus freight charges may apply. No freight collect or COD shipments will be accepted. Unauthorized shipments will be returned at the customer's expense. Special order material and material cut to custom specifications are not returnable.

**WARRANTY:** Fehr Bros. Industries, Inc. warranties its products against defective materials and workmanship at time of shipment. Damage in transit is the responsibility of the carrier. Claims are subject to inspection by our authorized representative, and liability is limited to replacement of material or refund of the purchase price. We cannot be responsible for labor charges and consequential damages.

# To Place Your Order...

For your convenience, we have provided a number of ways for you to order from us:

- On-Line: Go to www.fehr.com to request a login ID and Password for our Business Partnership Website. 24/7 accessibility when you need it.
- **By Phone:** 800-431-3095 or 845-246-9525
- **By Fax:** 845-246-3330 or 845-247-8300
- By email: info@fehr.com



# **ORDER FORM**

# FEHR BROS. INDUSTRIES, INC.

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QUANTITY	PART #	DESCRIPTION	UNIT PRICE			
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Date:	Customer	P.O.# Purcha	asing Authorization			