



Illusions[®] TM
Vinyl Railing System

CERTIFIED
ICC-ES AC174
2006 INTERNATIONAL BUILDING CODE (IBC)
2006 INTERNATIONAL RESIDENTIAL CODE (IRC)
1999 BOCA NATIONAL BUILDING CODE
Illusions[®] Vinyl Railing SystemTM
meets the highest building
codes in the nation!

PRODUCT CATALOG
Effective March 09, 2010

Available Through



**MASTER
HALCO[®]**

A Tradition of Fencing Solutions



Illusions[®]
Vinyl Railing System TM

Available Through



A Tradition of Fencing Solutions

1.888.MH.FENCE (toll-free)

www.MHillusionsfence.com • www.MasterHalco.com

MH Illusions[®] Vinyl Railing SystemTM 030910 Illusions Railings ©2010 All Rights Reserved.

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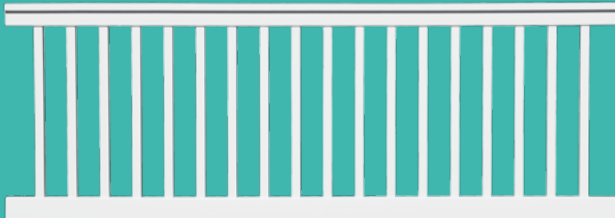


Illusions® Vinyl Railing System™

QuickShip™

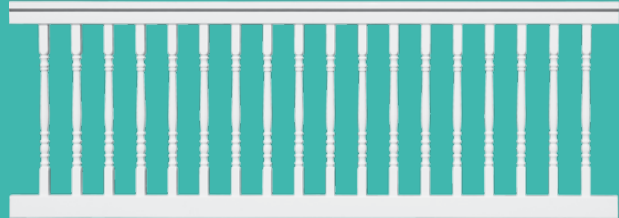
4 STYLES! 2 WIDTHS!
IN STOCK! ALL THE TIME!

ASSEMBLED PANELS



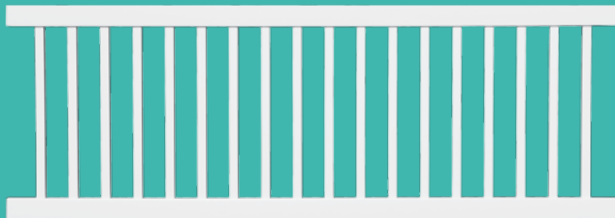
6' - 454634 • 8' - 454644

VRT6/8-3 - 3' High Traditional Blstr. 1.5" x 1.5",
T-Rail Top and 2"x3.5" Bottom Rail, 6' or 8' Wide



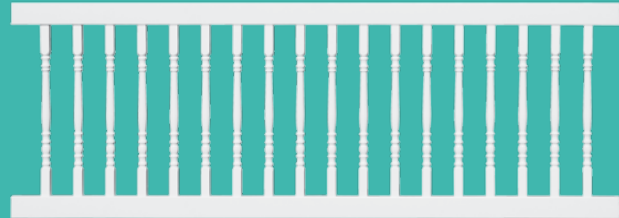
6' - 454674 • 8' - 454684

VRT6/8C-3 - 3' High Colonial Spindle Blstr.,
T-Rail Top and 2"x3.5" Bottom Rail, 6' or 8' Wide



6' - 454654 • 8' - 454664

VR6/8-3 - Traditional Blstr. 1.5" x 1.5",
2"x3.5" Top and Bottom Rail, 6' or 8' Wide



6' - 454694 • 8' - 454704

VR6/8C-3 - Colonial Spindle Blstr.,
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide

STAIR RAILS



6' - 454714

8' - 454724

VRST6/8-3

Traditional Stair Rail
Section, T-Rail Top and
2"x3.5" Bot. Rail, 6'/8' Wide



Also in Stock
2" x 3.5" Top Rail

6' - 454754

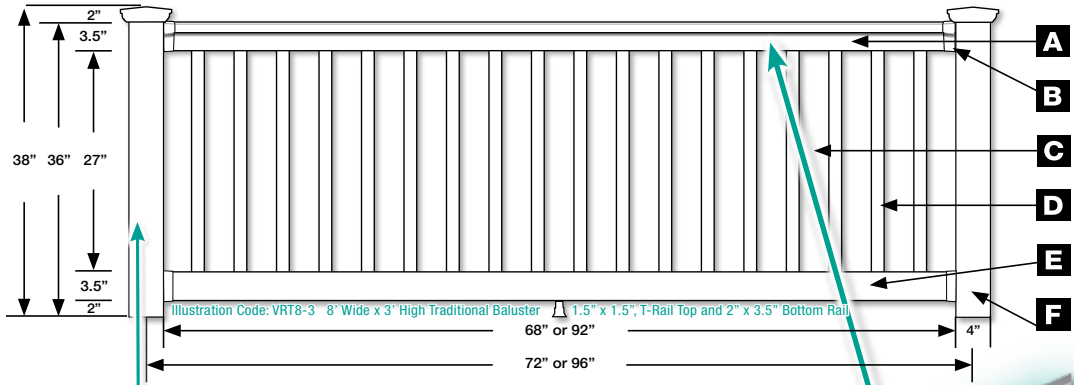
8' - 454764

VRST6/8C-3

Colonial Stair Rail
Section, T-Rail Top and
2"x3.5" Bot. Rail, 6'/8' Wide

RAILING SECTIONS

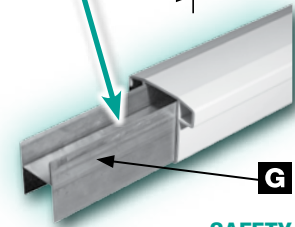
- A Top Rail**
VRT6/8-3 T-Rail Top
VR6/8-3 2" X 3.5" Top
- B Railing Bracket Kits**
VR235TRK T-Rail Hand Rail
VR235K 2" x 3.5" Hand Rail
VRSTRK T-Rail Stair Rail*
VRS235K 2" x 3.5" Stair Rail*
- C Baluster Spacing**
19 Spaces of 3.42" (8'Wide)
14 Spaces of 3.42" (6'Wide)
- D Balusters**
18 Balusters (8' Wide)
13 Balusters (6' Wide)
of 1.5" x 1.5" or
Colonial Spindle Style
- E Bottom Rail**
Both Styles
2" X 3.5"
- F Posts**
4" x 4" x 38" (For 36" Height)
4" x 4" x 44" (For 42" Height)
- G Aluminum Reinforcement**
"H"- Channel (AHC6/8)
*For 30-43 Degree Stairs



*“Commercial Strength
With Residential Beauty”*

Illusions® Vinyl Railing System™ meets the highest building code standards in the nation. Approved for both commercial and residential applications, it is sure to provide a safe and attractive solution to all of you railing needs.

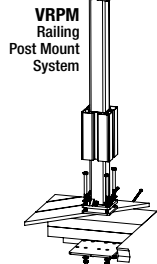
CERTIFIED for the following building codes:
ICC-ES AC174
2006 International Building Code (IBC)
2006 International Residential Code (IRC)
1999 BOCA National Building Code



SAFETY

Aluminum "H" Channel Reinforcement (AHC6/8). Included in all top rails. Shown in T-Rail. Also fits 2" x 3.5" tops.

AVAILABLE IN 36" AND 42" HEIGHTS



RAILINGS								
Item No.		Description	Color	Bundle Count	Loose Ea.	4 Pallet Ea.	8 Pallet Ea.	T/L Ea.
▼ 36" High Railing Sections ▼								
454634	VRT6-3	3' High Traditional Blstr. 1-1/2" x 1-1/2", T-Rail Top and 2"x3.5" Bottom Rail	6' Wide	White	12			
454644	VRT8-3	3' High Traditional Blstr. 1-1/2" x 1-1/2", T-Rail Top and 2"x3.5" Bottom Rail	8' Wide	White	12			
454654	VR6-3	3' High Traditional Blstr. 1-1/2" x 1-1/2", 2"x3.5" Top and Bottom Rail	6' Wide	White	12			
454664	VR8-3	3' High Traditional Blstr. 1-1/2" x 1-1/2", 2"x3.5" Top and Bottom Rail	8' Wide	White	12			
454674	VRT6C-3	3' High Colonial Spindle Blstr., T-Rail Top and 2"x3.5" Bottom Rail	6' Wide	White	12			
454684	VRT8C-3	3' High Colonial Spindle Blstr., T-Rail Top and 2"x3.5" Bottom Rail	8' Wide	White	12			
454694	VR6C-3	3' High Colonial Spindle Blstr., 2"x3.5" Top and Bottom Rail	6' Wide	White	12			
454704	VR8C-3	3' High Colonial Spindle Blstr., 2"x3.5" Top and Bottom Rail	8' Wide	White	12			
▼ 36" High Stair Railing Sections ▼								
454714	VRST6-3	3' High Traditional Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail	6' Wide	White	12			
454724	VRST8-3	3' High Traditional Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail	8' Wide	White	12			
454734	VRS6-3	3' High Traditional Stair Rail Section 2"x3.5" Top and Bottom Rail	6' Wide	White	12			
454744	VRS8-3	3' High Traditional Stair Rail Section 2"x3.5" Top and Bottom Rail	8' Wide	White	12			
454754	VRST6C-3	3' High Colonial Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail	6' Wide	White	12			
454764	VRST8C-3	3' High Colonial Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail	8' Wide	White	12			
454774	VRS6C-3	3' High Colonial Stair Rail Section, 2"x3.5" Top and Bottom Rail	6' Wide	White	12			
454784	VRS8C-3	3' High Colonial Stair Rail Section, 2"x3.5" Top and Bottom Rail	8' Wide	White	12			

★ - In Stock Item

10% Additional for Beige, Gray and Mix 'n' Match™



RAILINGS SECTIONS (Cont.)

RAILINGS

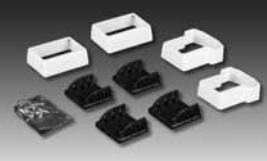
Item No.	Description	Color	Bundle Count	Loose Ea.	4 Pallet Ea.	8 Pallet Ea.	T/L Ea.
▼ 42" High Railing Sections ▼							
454794	VRT6-42 42" High Traditional Blstr. 1-1/2" x 1-1/2", T-Rail Top and 2"x3.5" Bottom Rail 6' Wide	White	12				
454804	VRT8-42 42" High Traditional Blstr. 1-1/2" x 1-1/2", T-Rail Top and 2"x3.5" Bottom Rail 8' Wide	White	12				
454814	VR6-42 42" High Traditional Blstr. 1-1/2" x 1-1/2", 2"x3.5" Top and Bottom Rail 6' Wide	White	12				
454824	VR8-42 42" High Traditional Blstr. 1-1/2" x 1-1/2", 2"x3.5" Top and Bottom Rail 8' Wide	White	12				
454834	VRT6C-42 42" High Colonial Spindle Blstr., T-Rail Top and 2"x3.5" Bottom Rail 6' Wide	White	12				
454844	VRT8C-42 42" High Colonial Spindle Blstr., T-Rail Top and 2"x3.5" Bottom Rail 8' Wide	White	12				
454854	VR6C-42 42" High Colonial Spindle Blstr., 2"x3.5" Top and Bottom Rail 6' Wide	White	12				
454864	VR8C-42 42" High High Colonial Spindle Blstr., 2"x3.5" Top and Bottom Rail 8' Wide	White	12				
▼ 42" High Stair Railing Sections ▼							
454874	VRST6-42 42" High Traditional Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail 6' Wide	White	12				
454884	VRST8-42 42" High Traditional Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail 8' Wide	White	12				
454894	VRS6-42 42" High Traditional Stair Rail Section 2"x3.5" Top and Bottom Rail 6' Wide	White	12				
454904	VRS8-42 42" High Traditional Stair Rail Section 2"x3.5" Top and Bottom Rail 8' Wide	White	12				
454914	VRST6C-42 42" High Colonial Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail 6' Wide	White	12				
454924	VRST8C-42 42" High Colonial Stair Rail Section, T-Rail Top and 2"x3.5" Bottom Rail 8' Wide	White	12				
454934	VRS6C-42 42" High Colonial Stair Rail Section, 2"x3.5" Top and Bottom Rail 6' Wide	White	12				
454944	VRS8C-42 42" High Colonial Stair Rail Section, 2"x3.5" Top and Bottom Rail 8' Wide	White	12				

★ - In Stock Item

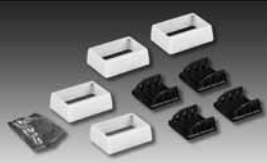
10% Additional for Beige, Gray and Mix 'n' Match™

BRACKETS/ACCESORIES

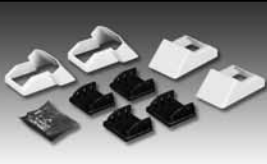
T-RAIL HAND RAIL 2" x 3.5" KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455344	VR235TRK T-Rail Hand Rail 2" x 3.5" Kit (2 pair each) Brackets	White	15				

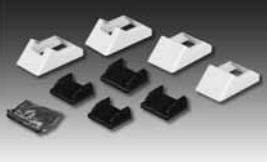
2" x 3.5" HAND RAIL KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455354	VR235K 2" x 3.5" Hand Rail Kit (4 pcs.) Brackets	White	15				


T-RAIL STAIR RAIL KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455364	VRSTRK T-Rail Stair Rail Kit (2 pair each) Brackets	White	15				



2" x 3.5" STAIR RAIL KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455374	VRS235K 2" x 3.5" Stair Rail Kit (4 pcs.) Brackets	White	15				

SCREW KIT WITH REQUIRED INSTALLATION INSTRUCTIONS

Item No.	Description	Case Count	Loose Each	Case Each	8 Case Ea.	10 Case Ea.	
455384 VRSSK	Screw Kit with Instructions (Required for ICC-ES AC174 Certified Installation)	48					

45 DEGREE ADAPTER KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455394	VRT45AK T-Rail 45 Degree Adapter Kit (2 pr. each) Brackets. 4 pcs.	White	30				
455404	VR23545AK 2" x 3.5" 45 Degree Adapter Kit (2 pr. each) Brackets. 4pcs.	White	30				


★ - In Stock Item

★10% Additional for Beige, Gray and Mix 'n' Match™

ACCESSORIES / POSTS


3 PIECE FOOT BLOCK KIT

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	T/L Each
455054	VRFBK 3 Pc. Ft. Block Kit, Bottom Rail Stabilizer	White	50			



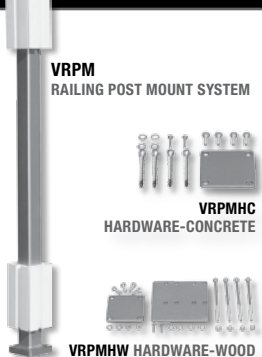
POST SKIRTS

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	T/L Each
455124	V44PS 4" x 4" Post Skirt		32			
	V44PSBG 4" x 4" Post Skirt Beige		32			
	V44PSGY 4" x 4" Post Skirt Gray		32			
455134	V55PS 5" x 5" Post Skirt		56			
	V55PSBG 5" x 5" Post Skirt Beige		56			
	V55PSGY 5" x 5" Post Skirt Gray		56			



POST INSERTS

Item No.	Description	Color	Case Count	Loose Ea.	Case Ea.	T/L Each
455064	VRPM436 Railing Post Mount System - 4" x 4" x 36"		48			
455074	VRPM442 Railing Post Mount System - 4" x 4" x 42"		48			
455084	VRPM536 Railing Post Mount System - 5" x 5" x 36"		48			
455094	VRPM542 Railing Post Mount System - 5" x 5" x 42"		48			
455104	VRPMHC Post Mount Hardware for Concrete Installation		24			
455114	VRPMW Post Mount Hardware for Wood/Composite Installation		24			




VRPM RAILING POST MOUNT SYSTEM

VRPMHC HARDWARE-CONCRETE

VRPMHW HARDWARE-WOOD


4" x 4" x 108" PORCH POST

Item No.	Description	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Each
455034	VRPP44-108 4" x 4" x 108" Porch Post	White	24			



4" x 4" x 48" NEWEL POST

Item No.	Description	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Each
455044	VRNP44-48 4" x 4" x 48" Newel Post	White	24			

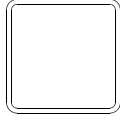


★ - In Stock Item

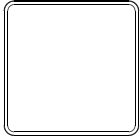
★10% Additional for Beige, Gray and Mix 'n' Match™

POSTS

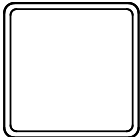
4" x 4"

Item No.		Profile	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Ea.	
454954	V4438B	Post Blank 4" x 4" x 38"	White	55				
454964	V4444B	Post Blank 4" x 4" x 44"	White	55				
454974	V4444B	Post Blank 4" x 4" x 4'	White	55				
454984	V448B	Post Blank 4" x 4" x 8'	White	55				

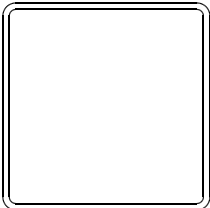
5" x 5"

Item No.		Profile	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Ea.	
454994	V558B	Post Blank 5" x 5" x 8'	White	63				
455004	V559B	Blank 5" x 5" x 9'	White	63				

5" x 5" Heavy Duty

Item No.		Profile	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Ea.	
455014	VH559B	H.D. Post Blank 5" x 5" x 9'	White	63				

8" x 8"

Item No.		Profile	Color	Bundle Count	Loose Ea.	Bundle Ea.	T/L Ea.	
455024	V8812B	Majestic Post Blank 8" x 8" x 12'	White	25				

★ - In Stock Item

10% Additional for Beige, Gray and Mix 'n' Match™

POST CAPS

FLAT CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455414	V44FO	Flat Outside Cap 4" x 4"	White	120		
455418	V44FOBG	Flat Outside Cap 4" x 4"	Beige	120		
455415	V44FOGY	Flat Outside Cap 4" x 4"	Gray	120		
455424	V55FO	Flat Outside Cap 5" x 5"	White	160		
455428	V55FOBG	Flat Outside Cap 5" x 5"	Beige	160		
455425	V55FOGY	Flat Outside Cap 5" x 5"	Gray	160		



FRENCH GOTHIC CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455434	V44FG	French Gothic Cap 4" x 4"	White	45		
455438	V44FGBG	French Gothic Cap 4" x 4"	Beige	45		
455435	V44FGGY	French Gothic Cap 4" x 4"	Gray	45		
455444	V55FG	French Gothic Cap 5" x 5"	White	45		
455448	V55FGBG	French Gothic Cap 5" x 5"	Beige	45		
455445	V55FGGY	French Gothic Cap 5" x 5"	Gray	45		



NEW ENGLAND CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455454	V44NE	New England Cap 4" x 4"	White	32		
455458	V44NEBG	New England Cap 4" x 4"	Beige	32		
455455	V44NEGY	New England Cap 4" x 4"	Gray	32		
455464	V55NE	New England Cap 5" x 5"	White	60		
455468	V55NEBG	New England Cap 5" x 5"	Beige	60		
455465	V55NEGY	New England Cap 5" x 5"	Gray	60		
455474	V88NE	New England Cap 8" x 8"	White	24		
455478	V88NEBG	New England Cap 8" x 8"	Beige	24		
455475	V88NEGY	New England Cap 8" x 8"	Gray	24		



PALACE SOLAR LIGHT CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455484	V55P	Palace Solar Light Cap 5" x 5" or 4" x 4"	White	24		
455488	V55PBG	Palace Solar Light Cap 5" x 5" or 4" x 4"	Beige	24		
455485	V55PGY	Palace Solar Light Cap 5" x 5" or 4" x 4"	Gray	24		



★ - In Stock Item

POST CAPS (Continued)

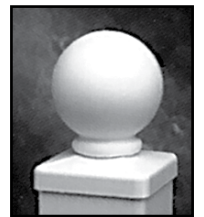
SOLAR LIGHT CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455494	V44SO	Solar Light Cap 4" x 4"	White	24		
455504	V55SO	Solar Light Cap 5" x 5"	White	24		



BALL CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455514	V44BC	Ball Cap 4" x 4"	White	60		
455518	V44BCBG	Ball Cap 4" x 4"	Beige	60		
455515	V44BCGY	Ball Cap 4" x 4"	Gray	60		
455524	V55BC	Ball Cap 5" x 5"	White	32		
455528	V55BCBG	Ball Cap 5" x 5"	Beige	32		
455525	V55BCGY	Ball Cap 5" x 5"	Gray	32		



COACHMAN CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455534	V44CM	Coachman Cap 4" x 4"	White	48		
455538	V44CMBG	Coachman Cap 4" x 4"	Beige	48		
455535	V44CMGY	Coachman Cap 4" x 4"	Gray	48		
455544	V55CM	Coachman Cap 5" x 5"	White	45		
455548	V55CMBG	Coachman Cap 5" x 5"	Beige	45		
455545	V55CMGY	Coachman Cap 5" x 5"	Gray	45		



TEAR DROP CAP

Item No.	Cap	Color	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455554	V44TD	Teardrop Cap 4" X 4"	White	48		
455558	V44TDBG	Teardrop Cap 4" X 4"	Beige	48		
455555	V44TDGY	Teardrop Cap 4" X 4"	Gray	48		
455564	V55TD	Teardrop Cap 5" X 5"	White	48		
455568	V55TDBG	Teardrop Cap 5" X 5"	Beige	48		
455564	V55TDGY	Teardrop Cap 5" X 5"	Gray	48		



GLUE

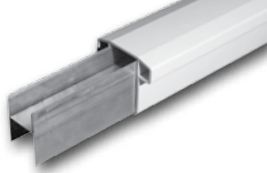
Item No.	Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455574	GLUE15 PVC Adhesive 1.5 oz.	24			
455584	GLUE8 PVC Adhesive 8 oz.	64			
455588	GLUE8BG PVC Adhesive 8 oz. Beige	64			
455585	GLUE8GY PVC Adhesive 8 oz. Gray	64			



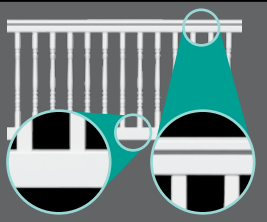
★ - In Stock Item

GATES / COMPONENTS

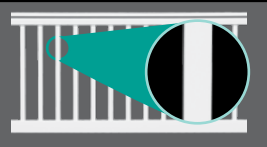
ALUMINUM REINFORCEMENT INSERT (INDIVIDUAL)

Item No.	Description	Color	Case/ Bundle Count	Loose Ea.	Case/ Bundle Ea.	10 Case T/L Ea.	
455154	AHC6 Aluminum Reinforcement Insert 6'	/	72				
455164	AHC8 Aluminum Reinforcement Insert 8'		72				

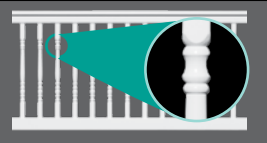
RAILS TOP AND BOTTOM (INDIVIDUAL)

Item No.	Description	Color	Case/ Bundle Count	Loose Ea.	Case/ Bundle Ea.	10 Case T/L Ea.	
455174	V2356TR T-Rail Top Rail 6' (Blank)	White	90				
455184	V2358TR T-Rail Top Rail 8' (Blank)	White	90				
455194	V2358-701 Railing Rail Top or Bottom	White	132				


1.5" x 1.5" x 32" TRADITIONAL BALUSTER (INDIVIDUAL BALUSTERS)

Item No.	Description	Color	Case/ Bundle Count	Loose Ea.	Case/ Bundle Ea.	10 Case T/L Ea.	
455204	V151532 1.5"x1.5"x32" Traditional Baluster	White	180				


1.5" x 1.5" x 32" COLONIAL SPINDLE BALUSTER (INDIVIDUAL BALUSTERS)

Item No.	Description	Color	Case/ Bundle Count	Loose Ea.	Case/ Bundle Ea.	10 Case T/L Ea.	
455214	V151532CS 1.5"x1.5"x32" Colonial Spindle Baluster	White	50				

TRADITIONAL 1.5" X 1.5" BALUSTER GATE

Item No.	Description	Color	Pallet Count	Loose Ea.	Pallet Ea.	T/L Each	
455604	VRG-43 Traditional 1.5" x 1.5" Spindle Picket 48" Wide x 34" High	White	12				

COLONIAL SPINDLE BALUSTER GATE




Item No.	Description	Color	Pallet Count	Loose Ea.	Pallet Ea.	T/L Each	
455614	VRGC-43 Colonial Spindle Picket Gate 48" Wide x 34" High	White	12				

★ - In Stock Item


★10% Additional for Beige, Gray and Mix 'n' Match™

GATE HARDWARE



LATCHES

Item No.		Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455622	MLS	Magnetic Gate Latch (Small)	20				 MLS
455632	V21SS	Gravity Latch w/ Plate S.S.	25				 V21SS
455642	V21LLP	Gravity Lock Latch Pro-Keyed	10				 V21LLP


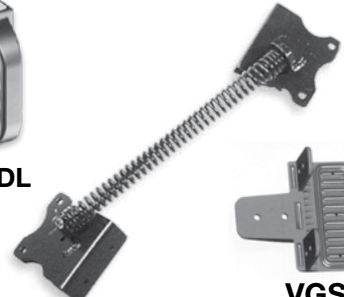

DROP RODS

Item No.		Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455652	DRAS	Drop Rod Assembly S.S. 24"	20				

HINGES

Item No.		Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455662	CPH55S	Corner Plate Hinge S.S. Spring Loaded	12 pr.				 CPH55S
455672	THSL	True-Close Spring Hinge S.S.	40pr.				 THSL

MISCELLANEOUS

Item No.		Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.	
455682	VHDL	Gate Handle PVC	40				 VHDL
455692	CSB-12SS	Spring Closer Stainless Steel	20				
455702	VGS	Gate Stop PVC	40				 VGS

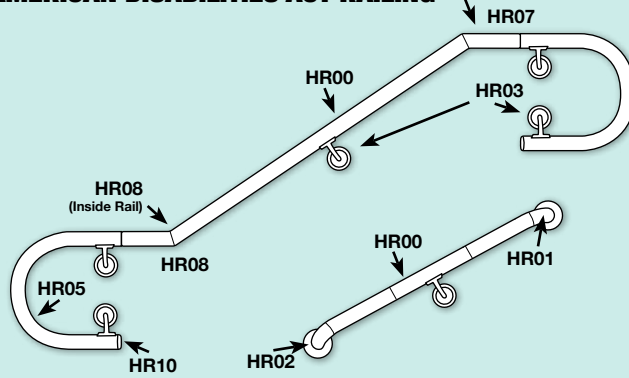
★ - In Stock Item

★★ - In Stock and Available in Black Only. (All others on this page are available in both black or white)

ADA HAND RAILING

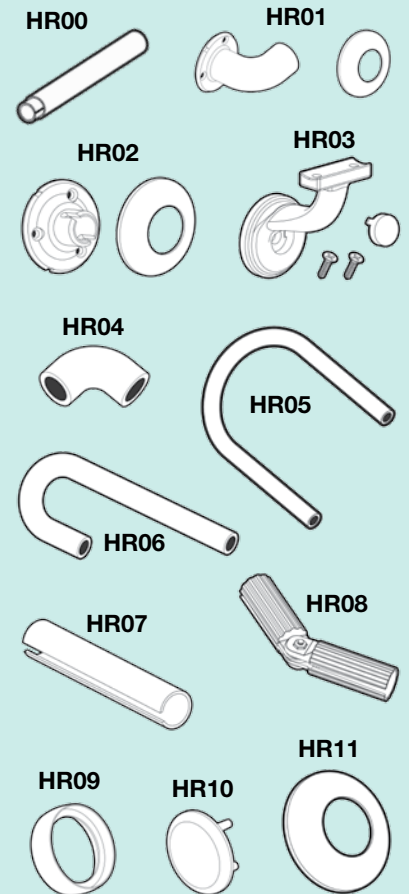


AMERICAN DISABILITIES ACT RAILING



ADA RAILING

Item No.	Description	Case Count	Loose Ea.	Case Ea.	10 Case Ea.
455224	HR00 Rail with Stiffener - 104"	12			
455234	HR01 90 Degree Wall Return Kit	12			
455244	HR02 Straight Wall Return Kit	12			
455254	HR03 Hand Rail Bracket Kit	12			
455264	HR04 90 Degree Corner	12			
455274	HR05 End Loop 18" x 12" x 18"	12			
455284	HR06 Post Return (Candy Cane)	12			
455294	HR07 Straight Joiner	12			
455304	HR08 Adjustable Joiner	12			
455314	HR09 Joint Ring	12			
455324	HR10 Rail End Cap	12			
455334	HR11 Bracket/Wall Return Cover Plate	12			



★ - In Stock Item

ICC-ES AC174



ILLUSIONS® VINYL RAILING SYSTEM™ IS FULLY ICC-ES AC174 CERTIFIED

Evaluation Scope

- Compliance with the following codes:
- 2006 International Building Code® (IBC)
 - 2006 International Residential Code® (IRC)

Properties Evaluated

- Structural
- Durability
- Surface-burning characteristics

*ICC-ES-2995
CCRR-0143*

Uses

The **Illusions Vinyl Railing System™** described in this report is for exterior use as guards for balconies, porches, decks and stairs in buildings of Type V-B (IBC) construction and other types of construction in applications where untreated wood is permitted by IBC Section 1406.3 or in buildings constructed in accordance with the IRC.

Description

The **Illusions Vinyl Railing System™** is composed of polyvinyl chloride (PVC) which is extruded, in accordance with the approved quality control manual, into prefabricated railing system components. The system components are available in white, beige or gray.

The **Illusions Vinyl Railing System™** is composed of top rails with aluminum "H" shaped inserts, bottom rails, and either square or colonial-shaped balusters. The inserts are 1.73 inches (43.9 mm) wide by 3.18 inches (80.8 mm) deep, and have 0.07-inch-thick (1.78 mm) flanges and a 0.10-inch-thick (2.54 mm) web. The inserts are made of Aluminum Alloy 6005-T5 meeting ASTM B 221. Four styles of **Illusions** railings are available: Traditional square balusters with rectangular top rails; Traditional square balusters with T-Rail top rails; Colonial Spindle balusters with rectangular top rails; and Colonial Spindle balusters with T-Rail top rails. The rectangular top rails and the bottom rails are 2 inches (51 mm) wide by 3.5 inches (89 mm) deep. The T-Rail top rails have a wider top, resulting in an overall size of 3.5 inches (89 mm) wide by 3.5 inches (89 mm) deep. The **Illusions Vinyl Railing System™** is recognized for guardrails having a maximum height of 42 inches (107 cm) as shown in Table 1. The railings provide for 3.42-inch-wide (86.9 mm) openings between the 1-1/2 inch (38.1 mm) square sections of the thermoformed hollow PVC Colonial balusters and the co-extruded hollow PVC Traditional balusters. The bottom and top rails have a 0.12-inch (3.05 mm) wall thickness, and the Traditional and Colonial balusters have a 0.08-inch (2.03 mm) wall thickness. See Figure 2 for typical component cross sections.

The top and bottom rails are fastened to the supporting structure using 2.5-inch-tall-by-2.75-inch-wide (64 mm by 70 mm) nylon brackets. The brackets have four screw holes used to fasten the brackets to the supports, a resting flange at the bottom, and a fastening flange on each side with three slotted screw holes each. The brackets are designed for mounting deck railings and stair railings to fixed wall surfaces or to braced columns.

Durability

When subjected to weathering, insect attack and other decaying elements, material used to manufacture the **Illusions Vinyl Railing System™** is equivalent to preservative-treated or naturally durable lumber when used in locations described in Section 2.0 of this report. The **Illusions Vinyl Railing System™** has been evaluated for a temperature range of -20°F to 125°F (-29°C to 52°C).

Surface Burning Characteristics

When tested in accordance with ASTM E 84, the **Illusions Vinyl Railing System™** has a flame-spread index of no greater than 200.

Design and Installation

General: Installation of the **Illusions Vinyl Railing System™** must comply with this report and the manufacturer's published installation instructions. A copy of these instructions must be available on the jobsite at all times during installation. When the manufacturer's published installation instructions differ from this report, this report governs.

Design: The **Illusions Vinyl Railing System™** is satisfactory to resist the loads specified in IBC Section 1607.7.1 and IRC Table R301.5, when installed at a maximum edge-of-structure-to-edge-of-structure spacing as prescribed in Table 1 of this report.

Installation: The **Illusions Vinyl Railing System™** has been evaluated for installation between two fixed points, such as walls or columns. The top rails must be reinforced with aluminum "H" shaped inserts, which are provided with the rails. The rails must be installed using the mounting plates supplied by Eastern Wholesale Fence Co., Inc., mounted on the supports at the appropriate heights for the bottom and top rails, with four No.10 by 1-1/2 inch-long (38.1 mm) panhead, stainless steel screws per bracket supplied by the manufacturer. The rails must be secured to the mounting brackets with two No. 10 by 3/4-inch (19.1 mm) stainless steel, pan head, self-tapping screws, making sure the screws engage and penetrate through the aluminum "H" shaped inserts. At stairs, the rails are installed in the same manner, with the bottom rail installed 2 inches above the risers. The attachment method described above for brackets to supports is for fasteners embedded into a wood substrate having a specific gravity of 0.50 (minimum), to a minimum depth of 1-3/8 inches (34.9 mm). Additional attachment methods are outside the scope of this report and are required to be submitted to the code official for approval. See Figure 1 for typical railing system installation.

Conditions of Use

The **Illusions Vinyl Railing System™** described in this report complies with, or is a suitable alternative to what

is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

The **Illusions Vinyl Railing System™** described in this report is limited to exterior use as guards for balconies, porches, decks and stairs in buildings of Type V-B (IBC) construction and other types of construction in applications where untreated wood is permitted by IBC Section 1406.3, or in buildings constructed in accordance with the IRC.

Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. Only those fasteners and fastener configurations described in this report have been evaluated for the installation of the **Illusions Vinyl Railing System™**. When the manufacturer's published installation instructions differ from this report, this report governs.

The determination of compatibility of the fasteners, metal post mount components and other metal hardware with the supporting construction, including chemically treated wood, is subject to approval by the code official.

5.4 Adjustment factors outlined in the AF&PA National Design Standard and applicable codes must not apply to the allowable capacity and maximum spans for the **Illusions Vinyl Railing System™**.

5.5 The **Illusions Vinyl Railing System™** must be fastened directly to supporting construction. Where required by the code official, engineering calculations and construction documents consistent with this report must be submitted for approval. The calculations must verify that the supporting construction complies with applicable building code requirements and is adequate to resist the loads imparted upon it by the products and systems discussed in this report. The documents must contain details of the attachment to the supporting structure consistent with the requirements of this report. The documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

5.6 The top rail of the **Illusions Vinyl Railing System™** must not be permitted to be used as a handrail for stairways or ramps.

5.7 Posts are outside the scope of this report.

5.8 The **Illusions Vinyl Railing System™** components are produced in Calverton, New York, under a quality control program with inspections by Architectural Testing, Inc. (AA-676).

Evidence Submitted

Data in accordance with the ICC-ES Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails) (AC174), dated February 2008 (editorially revised April 2008).

TABLE 1 – MAXIMUM GUARDRAIL SYSTEM SPANS¹

GUARDRAIL SYSTEM	GUARDRAIL TYPE	APPLICABLE BUILDING CODE ²		MAXIMUM SPAN ^{3,4} (Inches)
		IBC	IRC	
Colonial balusters with maximum 42-inch-high Rectangular or T-Rail top rail	Level	Yes	Yes	92
	Stair	Yes	Yes	87.5
Traditional balusters with maximum 42-inch-high Rectangular or T-Rail top rail	Level	Yes	Yes	92
	Stair	Yes	Yes	87.5

¹ The ability of the supporting construction to resist the reaction from guardrail loads must be justified to the satisfaction of the code official.

² Indicates compliance with the respective building codes.

³ Maximum allowable span has been adjusted for durability. No further increases are permitted.

⁴ Maximum span is measured from edge-of-support-to-edge-of-support. It is recommended that separate specimens be used for each exposure time.

ASTM F964-09



WHAT IS ASTM F964-09?

Scope

ASTM F964-09 is considered one of the "end all, beat all" testing specification for vinyl railing and fence quality. The purpose of this specification is to establish a recognized standard of quality for exterior vinyl profiles for use in assembling agricultural, commercial, and residential fencing and railing. This specification covers **Illusions® Vinyl Railing System™** sections and the EverStrong® Profiles used to fabricate them.

Materials

Illusions® Vinyl Railing System™ Products are manufactured using rigid poly vinyl chloride (PVC) compounds for exterior-profile extrusions that meet the requirements of ASTM Specification D4216.

Manufacture

Illusions® Vinyl Railing System™ Products are manufactured to meet cell Class 1-32333-3 as defined in Specification D4216. **Illusions®** compounds have higher cell classification because one or more properties are superior to those used in standard acceptable compounds.

Color/Consistency Testing – The PVC compound in extruded section shall maintain uniform color and be free of any visual surface or structural changes, such as peeling, chipping, cracking, flaking, or pitting after weathering at intervals of six months and one year for white and for six months, one year, and two years for all other colors in hot, dry climate such as Phoenix, AZ; a hot humid climate, such as Miami, FL; and a temperate northern climate, when tested in accordance with ASTM Performance Weathering Requirements (TABLE 1).

Weathering Testing – The PVC compound shall have a minimum impact resistance of 0.6 in.-lb/mil (2670 J/m) after weathering six months and one year in a hot, dry climate such as Phoenix, AZ; a hot, humid climate, such as Miami, FL; and a temperate northern climate, when tested in accordance with ASTM Performance Weathering Requirements. The PVC compound shall have successfully met the weathering requirements prescribed for six months at each climatic testing site prior to use in production of exterior-profile extrusions, when tested in accordance with ASTM Performance Weathering Requirements (TABLE 1).

ASTM Specifications Met

- D256** – To determine Izod impact properties
- D618** – Practice for Conditioning Plastics for Testing
- D635** – Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
- D638** – To determine tensile properties
- D648** – To determine heat distortion temperature
- D696** – Test Method for Coefficient of Linear Thermal Expansion of Plastics Between 030°C and 30°C with a Vitreous Silica Dilatometer
- D790** – To determine flexural properties
- D792** – To determine specific gravity
- D883** – Terminology Relating to Plastics
- D1435** – Practice for Outdoor Weathering of Plastics
- D1600** Terminology for Abbreviated Terms Relating to Plastics
- D1784** – Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
- D7032** – Standard Specification for Establishing: Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail Systems (Guards or Handrails)
- D1761** – Standard Test Methods for Mechanical Fasteners in Wood: Used to test rail mounting brackets in PVC sleeved pressure treated wood posts.
- D1898** – Practice for Sampling of Plastics
- D2240** – To determine Shore hardness values
- D2244** – Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
- D2565** – Practice for Xenon-Arc Exposure of Plastics Intended for Outdoor Applications
- D4216** – Material Class Number1-32333-3. To establish Cell Classification of PVC material. **Illusions** compounds have higher cell classification because one or more properties are superior to those used in standard acceptable compounds
- D4226** – Test Methods for Impact Resistance of Rigid

Poly-(Vinyl Chloride) (PVC) Building Products
D4726 – Specification for Rigid Poly(Vinyl Chloride) (PVC) Exterior-Profile Extrusions Used for Assembled Windows and Doors
E-84-04 – Used to determine the flame spread value of PVC material; **Illusions®** burn rate is significantly lower than allowed value

Quality Assurance

Illusions® Vinyl Railing System™ Products are run through a series of dimensional and color tests that are performed at least every two hours. Testing includes; flattening, extrusion quality, impact resistance, warp, color comparison with standard color samples, capstock thickness, and bond testing. All will be done at the startup of a production and once per shift thereafter with a minimum of two tests per 24 hours of production.

TABLE 1 - Required Exposures for PVC Extrusions - In Process

Color of PVC Extrusions	Exposure Climate	Required Exposure Times, Months*
White	hot, dry (Phoenix, AZ)	6 and 12
	hot, humid (Miami, FL)	6 and 12
	northern temperate	6 and 12
Any other color	hot, dry (Phoenix, AZ)	6, 12 and 24
	hot, humid (Miami, FL)	6, 12 and 24
	northern temperate	6, 12 and 24

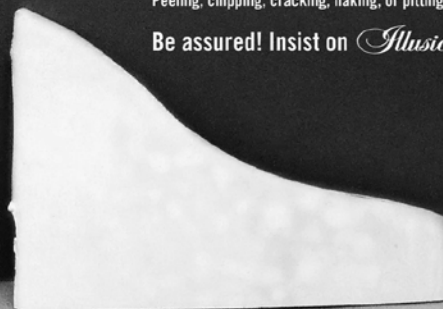
*It is recommended that separate specimens be used for each exposure time.

THESE ARE THE RESULTS FROM AN ACCELERATED WEATHER TESTING CHAMBER IN LABORATORY CONDITIONS

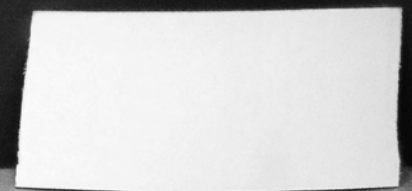
The *Illusions® Vinyl Railing System™* Advantage

This test is run according to ASTM Standard G-155, Cycle #1. All **Illusions® Vinyl Railing** products are guaranteed to be made from 100% Pure Virgin Vinyl and assembled according to ASTM F964. Please note the difference in color retention and be assured, **Illusions® Vinyl Railing System™** will have uniformed color and be free of any visual surface or structural changes such as: Peeling, chipping, cracking, flaking, or pitting after weathering.

Be assured! Insist on *Illusions® Vinyl Railing* Products.



Competitor:
450 Hrs.
 (4-5 Years)



Illusions®:
1000 Hrs.
 (10-11 Years)

QuickShip

4 STYLES!
2 WIDTHS!
IN STOCK!
ALL THE TIME!

ASSEMBLED PANELS



VR16/8-3 - Traditional Pkt. 1.5" x 1.5",
T-Rail Top and 2"x3.5" Bottom Rail, 6' or 8' Wide



VR6/8-3 - Traditional Pkt. 1.5" x 1.5",
2"x3.5" Top and Bottom Rail, 6' or 8' Wide



VR16/8C-3 - Colonial Spindle Pkt.,
T-Rail Top and 2"x3.5" Bottom Rail, 6' or 8' Wide



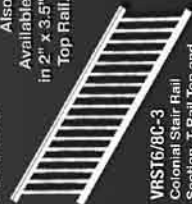
VR6/8C-3 - Colonial Spindle Pkt.,
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide

STAIR RAILS

Also Available
in 2" x 3.5"
Top Rail.



VR16/8-3
Traditional Stair Rail
Section, T-Rail Top and
2"x3.5" Bot. Rail, 6'/8' Wide



VR16/8C-3
Colonial Stair Rail
Section, T-Rail Top and
2"x3.5" Bot. Rail, 6'/8' Wide

GATES



VRG-43



VRG-43

Accessories



VR2351TRK
T-RAIL HAND RAIL 2" x 3.5" KIT



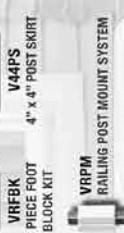
VR2351RK
2" x 3.5" HAND RAIL KIT



VRSTRK
T-RAIL STAIR RAIL KIT



VRT45AK
T-RAIL 45° ADPT. KIT



VRFBK
3 PIECE FOOT
BLOCK KIT



VRPMS
RAILING POST MOUNT SYSTEM



VRPWC
HARDWARE - COMPLETE



VR44PS
4" x 4" POST SKIRT



VRNP44-48
4" x 4" x 48" NEWEL POST



VRPP44-108
4" x 4" x 108" PORCH POST



CERTIFIED
ICC-ES ACT14
2006 INTERNATIONAL BUILDING CODE (IBC)
2006 INTERNATIONAL RESIDENTIAL CODE (IRC)
1999 IBCA NATIONAL BUILDING CODE
Illusions Vinyl Railing System™
meets the highest building
codes in the nation!

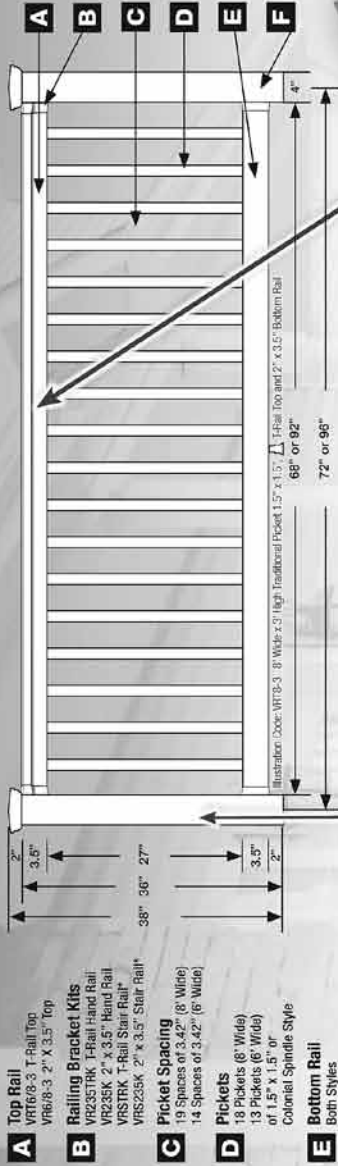


Eastern Fence ©2004, IFRS 0309

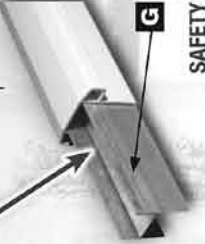


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Mission's® VINYL RAILING SYSTEM™



- A Top Rail**
VR16/8-3 T-Rail Top
VR16/8-3 2" x 3.5" Top
- B Railing Bracket Kits**
VR225TRK T-Rail Hand Rail
VR225SK 2" x 3.5" Hand Rail
VR18TRK T-Rail Stair Rail*
VR18SK 2" x 3.5" Stair Rail*
- C Picket Spacing**
19 Spaces of 3.42" (8" Wide)
14 Spaces of 3.42" (6" Wide)
- D Pickets**
18 Pickets (6" Wide)
13 Pickets (6" Wide)
of 1.5" x 1.5" or
Colonial Spindle Style
- E Bottom Rail**
Both Styles
2" x 3.5"
- F Posts**
4" x 4" x 33" (For 36" Height)
4" x 4" x 44" (For 42" Height)
- G Aluminum Reinforcement**
"H"-Channel (AHC6/8)
*For 30-40 Degree Spires



SAFETY
Aluminum "H" Channel Reinforcement (AHC6/8). Included in all top rails. Shown in T-Rail. Also fits 2" x 3.5" tops.

"Commercial Strength With Residential Beauty"

Mission's® Vinyl Railing System™ meets the highest building code standards in the nation. Approved for both commercial and residential applications, it is sure to provide a safe and attractive solution to all of your railing needs.

CERTIFIED for the following building codes:
ICC-ES AC174
2006 International Building Code (IBC)
2006 International Residential Code (IRC)
1999 BOCA National Building Code

AVAILABLE IN 36" AND 42" HEIGHTS



Comfort and Security

Mix 'n' Match Colors

White Beige (BG) Gray (GY)

Post Caps Available

SOLAR	EXTERNAL FLAT	BALL	COACHMAN
PALACE SOLAR	TEARDROP	GOTHIC	NEW ENGLAND



VR6/8-3
Traditional Picket 1.5" x 1.5", 2" x 3.5" Top and Bottom Rail



VR6/8C-3 Colonial Spindle Picket Shown With 2" x 3.5" Top and Bottom Rail
Porch Post VRPP44-108 (Short Newel Posts VRNP44-48 Also Available)



VRT6/8C-3
Colonial Spindle Picket T-Rail Top and 2" x 3.5" Bottom Rail



Installation Instructions

Tools Needed to Complete Installation:

- Measuring Tape
- Wrench Set
- Pencil
- Phillips Head Screwdriver or Screwdriver Bits
- Level
- Circular Saw With Carbide Tip Multi-purpose Blade
- 2" Wood Blocks for Ease of Determining Height of Sections

The following instructions will guide you through the AC174 approved installation of your new *Illusions*® Vinyl Railing System™. Testing was performed to evaluate compliance with ICC-ES AC174, *Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails)* which is ICC-ES acceptance criteria for recognition of compliance with the following building codes:

- **ICC-ES AC174**
- **2006 International Building Code (IBC)**
- **2006 International Residential Code (IRC)**
- **1999 BOCA National Building Code**

This installation guide is a recommendation for meeting most code requirements. Always check your local building codes before starting a project and for determining the acceptable installation practices of your area. Read assembly instructions completely before beginning construction. Always wear protective goggles and gloves when installing a vinyl railing system.

IMPORTANT NOTE:

- **When installing brackets to post mounts, use 1 inch screws provided.**
- **When installing brackets to vinyl sleeved over wood, use 1-1/2 inch screws provided.**
- **When securing rails to brackets, use 3/4 inch screws provided for all applications.**

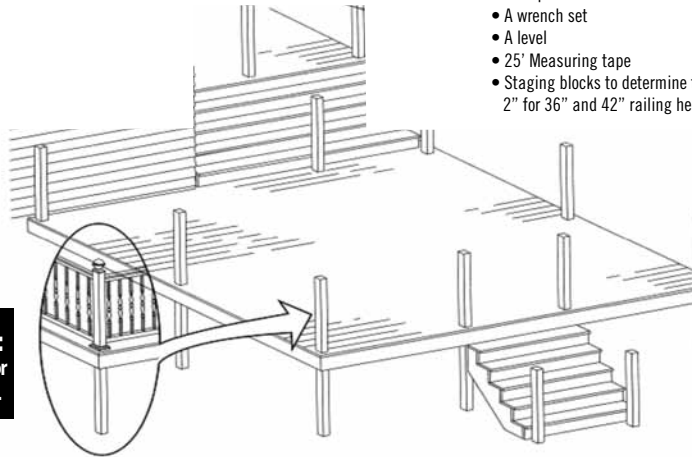


Vinyl Post Sleeve Over Wood Posts

Typically, square 4" x 4" support posts are placed according to the length of railing desired and extend through the deck and then are cut to a height to receive the railing post. Square vinyl posts are then slid over the wooden posts, ready for railing sections to be installed.

TOOLS NEEDED

- Cut off saw with fine tooth blade, and/or a
- Circular saw with a carbide tip multi-purpose blade
- Drill
- 1/2" Masonry drill bit (if mounting a post on concrete)
- #2 Square drive screwdrivers or screwdriver bits
- A wrench set
- A level
- 25' Measuring tape
- Staging blocks to determine the height of the railing; 2" for 36" and 42" railing heights



IMPORTANT NOTE:
Installer must consult local code officials for compliance to building code requirements.



Wood Post Mount Installation Instructions for VRPM436 and VRPM442 with VRPMHW

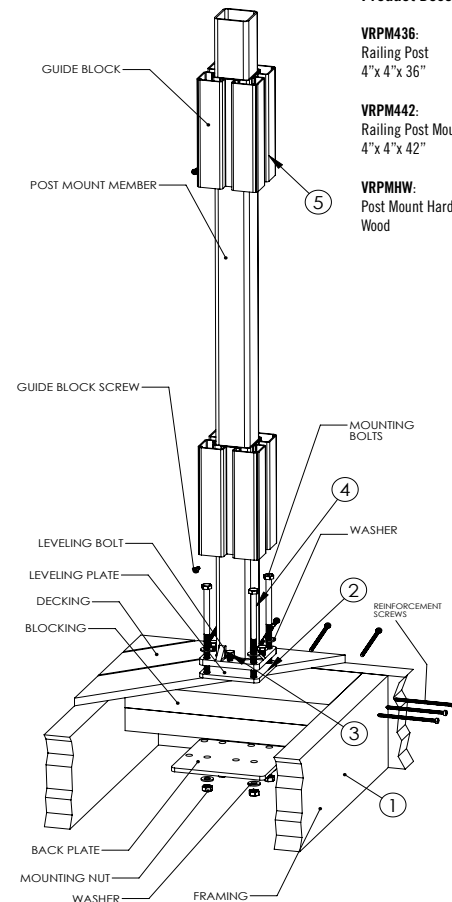
- STEP 1** - Lay out the location of the post.
- Install at least 3" of blocking under the mounting location. Securely attach the blocking using reinforcement screws.
- STEP 2** - Using the leveling plate as a template, mark the locations of the 4 mounting holes to be drilled.
- Drill 4 holes through the decking and blocking using a 3/8" diameter drill bit.
- STEP 3** - Install the 4 leveling bolts into the post mount member.
- Place the leveling plate on the decking surface and align over the (4) drilled holes.
 - Place the post mount member on top of the leveling plate and align the (4) holes.
 - Adjust the leveling screws to ensure the post mount member is level.
- STEP 4** - Install the 4 mounting bolts with washers as shown.
- On the underside, place the back plate over the exposed mounting bolts. (Use the centered holes for in-line applications and the offset holes for corner applications).
 - Secure the back plate by using the supplied mounting nuts and washers.
- STEP 5** - Install the two guide blocks onto the post mount member. They should be positioned so that the screws from the railing brackets will screw into the guide blocks.
- Once the proper heights are established, drill a 1/8" dia. hole through both the guide block and the post mount member. Install the supplied guide block screws to hold the guide blocks in place.
- STEP 6** - Install the post profile and rail brackets according to *Illusions* specifications.

Product Descriptions:

VRPM436:
Railing Post
4" x 4" x 36"

VRPM442:
Railing Post Mount
4" x 4" x 42"

VRPMHW:
Post Mount Hardware - Wood



IMPORTANT NOTE:
Installer must consult local code officials for compliance to building code requirements.

Concrete Post Mount Installation Instructions for VRPM436 and VRPM442 with VRPMHC

STEP 1 - Lay out the location of the post.

STEP 2 - Using the leveling plate as a template, mark the locations of the 4 mounting holes to be drilled.

- Drill 4 holes into the concrete using a 1/4" diameter masonry drill bit. The hole must be drilled to a minimum depth of 3-1/2".
- Clean out the holes of all dust and debris.

STEP 3 - Install the 4 leveling bolts into the post mount member.

- Place the leveling plate on the concrete surface and align over the (4) drilled holes.
- Place the post mount member on top of the leveling plate and align the (4) holes.
- Adjust the leveling screws to ensure the post mount member is level.

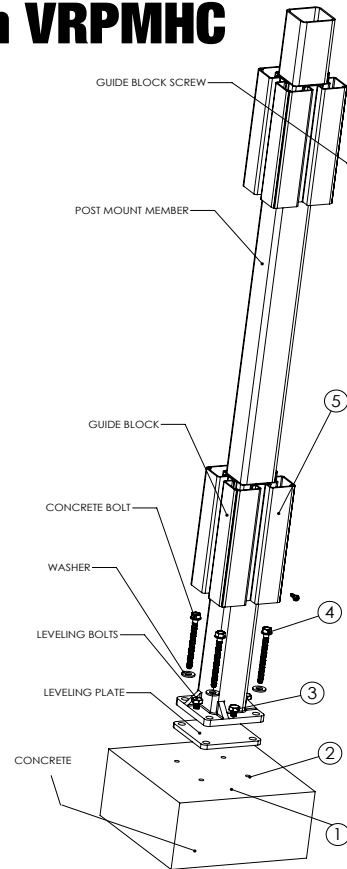
STEP 4 - Install the 4 concrete bolts with washers as shown by applying downward pressure while turning in a clockwise direction.

- Continue to tighten the bolts until the heads are firmly seated. (Do not over tighten).

STEP 5 - Install the two guide blocks onto the post mount member. They should be positioned so that the screws from the railing brackets will screw into the guide blocks.

- Once the proper heights are established, drill a 1/8" dia. hole through both the guide block and the post mount member. Install the supplied guide block screws to hold the guide blocks in place.

STEP 6 - Install the post profile and rail brackets according to *Illusions*[®] specifications.



Product Descriptions:

VRPM436:
Railing Post
4" x 4" x 36"

VRPM442:
Railing Post Mount
4" x 4" x 42"

VRPMHC:
Post Mount Hardware -
Concrete

IMPORTANT NOTE:
Installer must consult local code officials for compliance to building code requirements.

Straight Railing Bracket System Install Instructions for VR235K and VR235TRK

STEP 1 - Using four (4) of the **VRSSK** provided screws (1 inch screws for post mount applications and 1-1/2 inch screws for vinyl sleeve over wood post applications), install the lower mounting plate to the post. The Mounting Plates should be centered on the post and **the resting flange should be at the required height from the deck which is 2 inches.**

STEP 2 - Repeat Step 1 for installation of upper Mounting Plate. **The distance between the top of the post to the top of resting flange is 5-1/2 inches.** Repeat steps 1 and 2 on opposite Post.

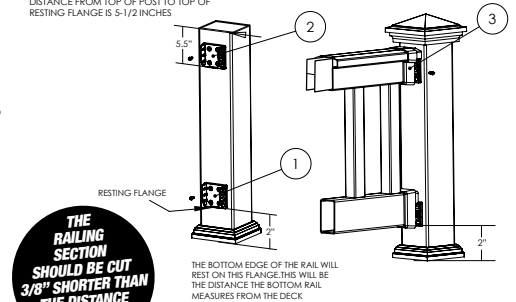
STEP 3 - Slide the bracket covers onto the railing section. Install the pre-assembled railing section into the mounting plates. Making sure that the rails sit on the resting flanges.

STEP 4 - Install two (2) of the supplied 3/4 inch side screws into each mounting plate (one on each side) using the best slot location making sure that the screws engage into the aluminum H-channel (Code#-AHC6/8) in the rail. The mounting plates are slotted to allow for thermal expansion and contraction.

STEP 5 - Slide the covers towards the post until they snap onto the mounting plates. You will hear an audible "click."

STEP 6 - Choose any decorative post cap and footblock styles.

CENTER THE BRACKETS ON THE POST. DISTANCE FROM TOP OF POST TO TOP OF RESTING FLANGE IS 5-1/2 INCHES

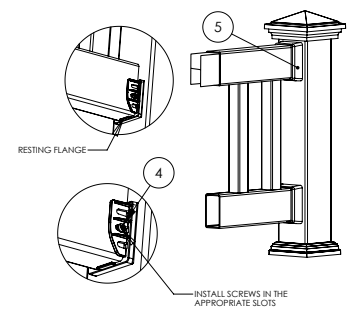


THE RAILING SECTION SHOULD BE CUT 3/8" SHORTER THAN THE DISTANCE BETWEEN POSTS

Product Descriptions:

VR235K:
2" x 3.5" Hand Rail Bracket Kit (4 Pc.)
Also available in:
Beige (VR235KBG)
Gray (VR235KGY)

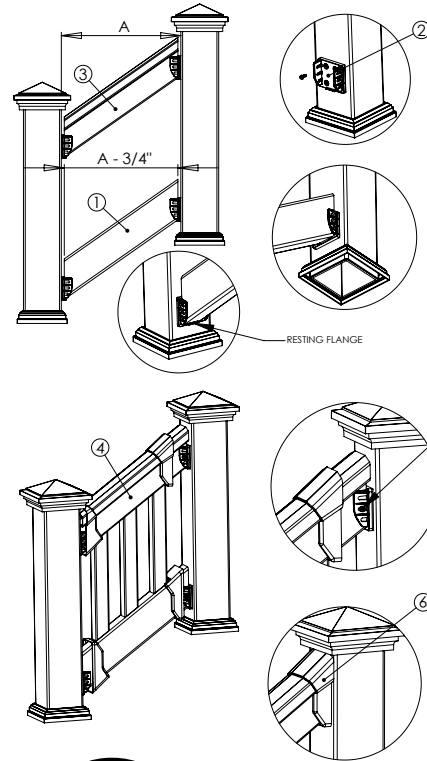
VR235TRK:
T-Rail 2" x 3.5" Rail Bracket Kit (2 of ea.)
Also Available in:
Beige (VR235TRKYG)
Gray (VR235TRKGY)





Stair Railing Bracket Installation for VRS235K or VRSTRK

- STEP 1** - Cut top and bottom rail to desired length and angle to match the stair angle and the distance between the stair posts minus 3/8". Place a mounting bracket on each end of the rail, make sure the bottom rail sits on the resting flanges. Temporarily place into position at the desired distance above tread risers. The Mounting plates should be centered on the post and **the resting flange should be at the required height from the risers which is 2 inches.** Mark locations of the bottom of each mounting bracket and remove the section.
- STEP 2** - Using Four (4) of the provided VRSSK screws (1 inch screws for post mount applications and 1-1/2 inch screws for vinyl sleeve over wood post applications), install the lower mounting plate to the post. The Mounting plates should be centered on the post and aligned with the locations marked in Step 1.
- STEP 3** - Repeat step 1 and 2 for upper rail. **The distance between the top of the post to the top of resting flange is 5-1/2 inches.**
- STEP 4** - Slide the bracket covers onto the railing section. Install the pre-assembled Illusions® railing section into the mounting plates. Making sure that the rails sit on the resting flanges.
- STEP 5** - Install two (2) of the supplied 3/4 inch side screws into each mounting plate (one on each side) using the best slot location making sure that the screws engage into the aluminum H-channel (Code#-AHC6/8) in the rail. The mounting plates are slotted to allow for thermal expansion and contraction.
- STEP 6** - Slide the covers toward the post until they snap onto the mounting plates. You will hear an audible "click."
- STEP 7** - Choose any decorative post cap and footblock styles.



THE RAILING SECTION SHOULD BE CUT 3/8" SHORTER THAN THE DISTANCE BETWEEN POSTS

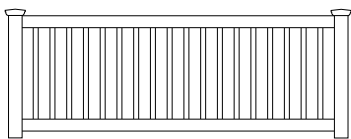
Product Descriptions:

VRS235K:
2" x 3.5" Stair Rail Bracket Kit (4 Pc.)
Also available in:
Beige (VRS235KBG)
Gray (VRS235KGY)

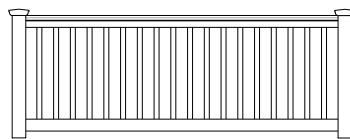
VRSTRK:
T-Rail 2" x 3.5" Stair Rail Bracket Kit (2 of ea.)
Also Available in:
Beige (VRS235TRKBG)
Gray (VRS235TRKGY)



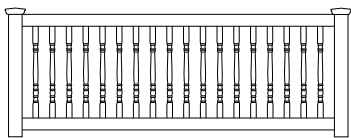
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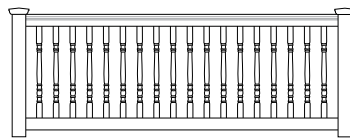
**Traditional Blstr. 1.5" x 1.5",
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide**



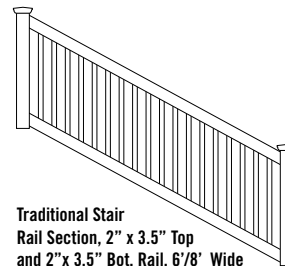
**Traditional Blstr. 1.5" x 1.5",
T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide**



**Colonial Spindle Blstr.,
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide**



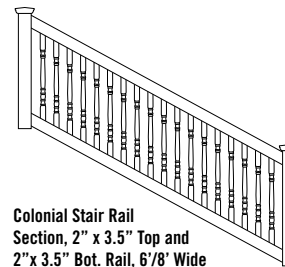
**Colonial Spindle Blstr.,
T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide**



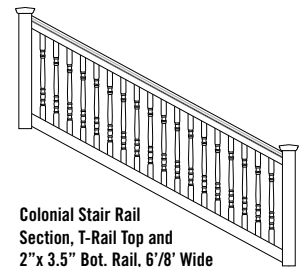
Traditional Stair Rail Section, 2" x 3.5" Top and 2" x 3.5" Bot. Rail, 6' or 8' Wide



Traditional Stair Rail Section, T-Rail Top and 2" x 3.5" Bot. Rail, 6' or 8' Wide



Colonial Stair Rail Section, 2" x 3.5" Top and 2" x 3.5" Bot. Rail, 6' or 8' Wide



Colonial Stair Rail Section, T-Rail Top and 2" x 3.5" Bot. Rail, 6' or 8' Wide

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