



**MASTER  
HALCO<sup>®</sup>**

**RAILING  
SYSTEMS**



# MASTER HALCO RAILING PROGRAM

Introducing the most comprehensive railing opportunity utilizing vinyl railing, aluminum railing, and color and woodgrain vinyl railing.



# MH RAILING PROGRAM

- STOCKING VINYL RAILING
- STOCKING ALUMINUM RAILING
- CUSTOM COLOR & WOODGRAIN VINYL RAILING



# MASTER HALCO VINYL RAILING SYSTEM



# MASTER HALCO VINYL RAILING SYSTEM



**Vinyl Railing** is the heartbeat of the current deck and railing industry.

Between the guaranteed longevity and the myriad of styles to choose from, it's no wonder that deck and railing installation companies are always reaching for the vinyl option. start installing it on any floor today.



# MASTER HALCO VINYL RAILING SYSTEM



## Made in the U.S.A.

Master Halco Vinyl Railing System is proudly manufactured in the United States of America.



## ICC-ES AC174 Certified

ICC-ES AC174 is the industry accepted criteria for recognition of compliance with the following building codes: 2018 International Residential Code (IRC), 2018 International Building Code (IBC), and 2013 Abu Dhabi International Building Code (ADIBC).



## ASTM F964 Compliant

ASTM F964 is considered the most recognized testing specification for vinyl. 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.



# MASTER HALCO VINYL RAILING SYSTEM STOCKING SUGGESTIONS



## VINYL BALUSTERS

## ALUMINUM BALUSTERS

### SECTIONS:

- VRA126BBW – 36" High x 6' Level Rail Kit w/ 1.5" x 1.5" Square WHITE Baluster
- VRA128BBW – 36" High x 8' Level Rail Kit w/ 1.5" x 1.5" Square WHITE Square Baluster
- VRA126BBWS – 36" High x 6' Stair Rail Kit w/ 1.5" x 1.5" Square WHITE Square Baluster
- VRA128BBWS – 36" High x 8' Stair Rail Kit w/ 1.5" x 1.5" Square WHITE Square Baluster

### SECTIONS:

- VRA126LPW – 36" High x 6' Level Rail Kit w/ 3/4" BLACK ROUND Aluminum Baluster
- VRA128LPW – 36" High x 8' Level Rail Kit w/ 3/4" BLACK ROUND Aluminum Baluster
- VRA126LPWS – 36" High x 6' Stair Rail Kit w/ 3/4" BLACK ROUND Aluminum Baluster
- VRA128LPWS – 36" High x 8' Stair Rail Kit w/ 3/4" BLACK ROUND Aluminum Baluster

# MASTER HALCO VINYL RAILING SYSTEM

## STOCKING SUGGESTIONS



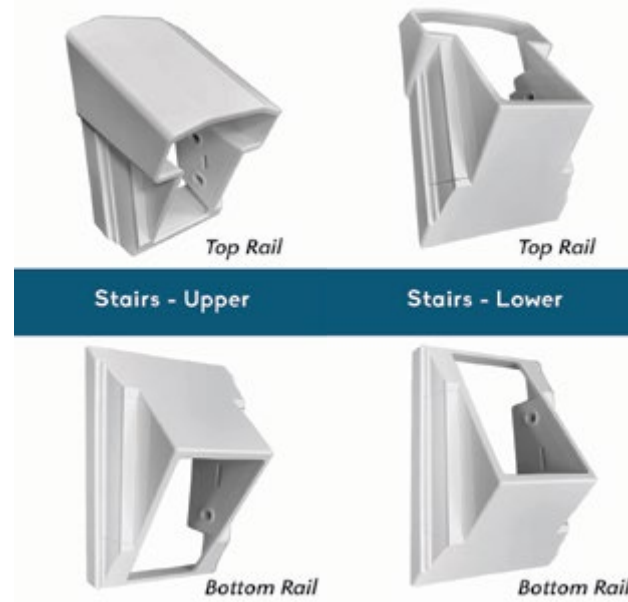
### ACCESSORIES:

- SVSVBA100SLBPW – Cover Clip Style - Level Bracket Pack (2 Tops, 2 Bottoms) - WHITE
- SVSVBA100SSBPW – Cover Clip Style - Stair Bracket Pack (2 Tops, 2 Bottoms) - WHITE
- SVSVBA100MALBPW - Multi-Angle Level Bracket Pack (2 Tops, 2 Bottoms) - WHITE
- SVSVBA100MASBPW - Multi-Angle Stair Bracket Pack (2 Tops, 2 Bottoms) - WHITE
- SVSVBA100S45BPW - Cover Clip Style - 45 Degree Bracket Pack (2 Tops, 2 Bottoms) - WHITE
- SVSVRP8RCAW - 8" ROUND COLUMN ADAPTER WHITE (4-PACK) - WHITE



### VINYL POST / CAPS / TRIM RINGS:

- VRP0404039HSW – 4" x 4" x 39" Post Sleeve (wrapped) WHITE
- VRP0404048HSW – 4" x 4" x 48" Post Sleeve (wrapped) WHITE
- VRP0404054HSW – 4" x 4" x 54" Post Sleeve (wrapped) WHITE
- VRP0404096HSW – 4" x 4" x 96" Post Sleeve (wrapped) WHITE
- VRP0404108HSW – 4" x 4" x 108" Post Sleeve (wrapped) WHITE
- VRP0404120HSW – 4" x 4" x 120" Post Sleeve (wrapped) WHITE
- VRP0606108HSW – 6" x 6" x 108" Post Sleeve (wrapped) WHITE
- VRP0606120HSW – 6" x 6" x 120" Post Sleeve (wrapped) WHITE
- VRP0606132HSW – 6" x 6" x 132" Post Sleeve (wrapped) WHITE
- VRP4TRADNEW – 4" Traditional New England Cap WHITE
- VRP4TRIMW – 4" Traditional Trim Ring WHITE (#A-44TR)
- VRP4HORSE – 4" Flat Cap WHITE
- VRP6TRADNEW – 6" Traditional New England Cap WHITE
- VRP6TRIMW – 6" Traditional Trim Ring WHITE
- VRP0404036AWGP – 4" Angle Wizard Post Mount





# MASTER HALCO VINYL RAILING SYSTEM

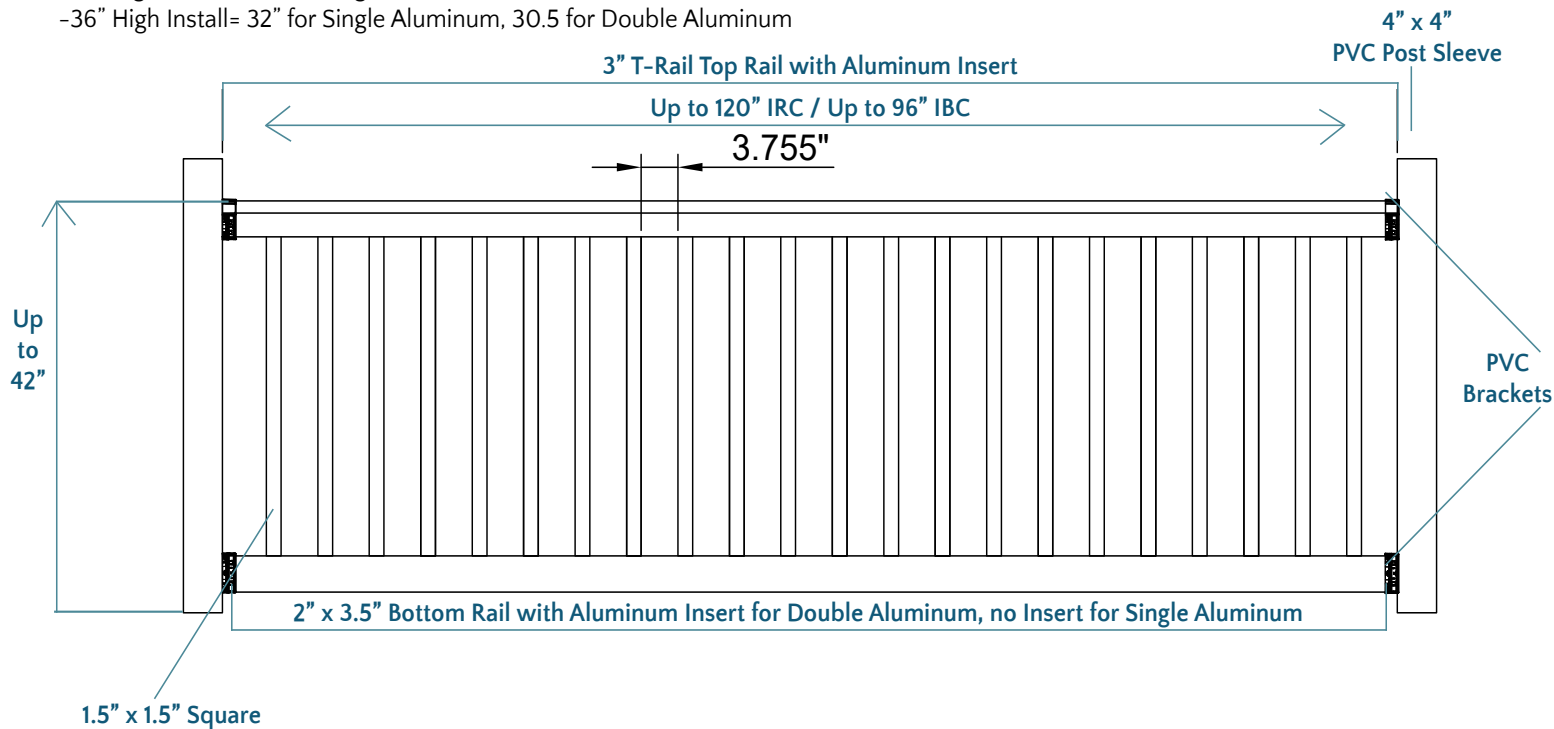
## STOCKING SUGGESTIONS



### 100 Series – Level Square Baluster

#### Notes:

- For Testing information, see Intertek Report: K0895.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38" for Single Aluminum, 36.5" for Double Aluminum
  - 36" High Install= 32" for Single Aluminum, 30.5 for Double Aluminum



**Top T-Rail**  
 3½" Wide  
 3½" High  
 Aluminum Reinforced



**Bottom Rail**  
 2" Wide  
 3½" High  
 Aluminum Reinforced  
 Optional

# MASTER HALCO VINYL RAILING SYSTEM

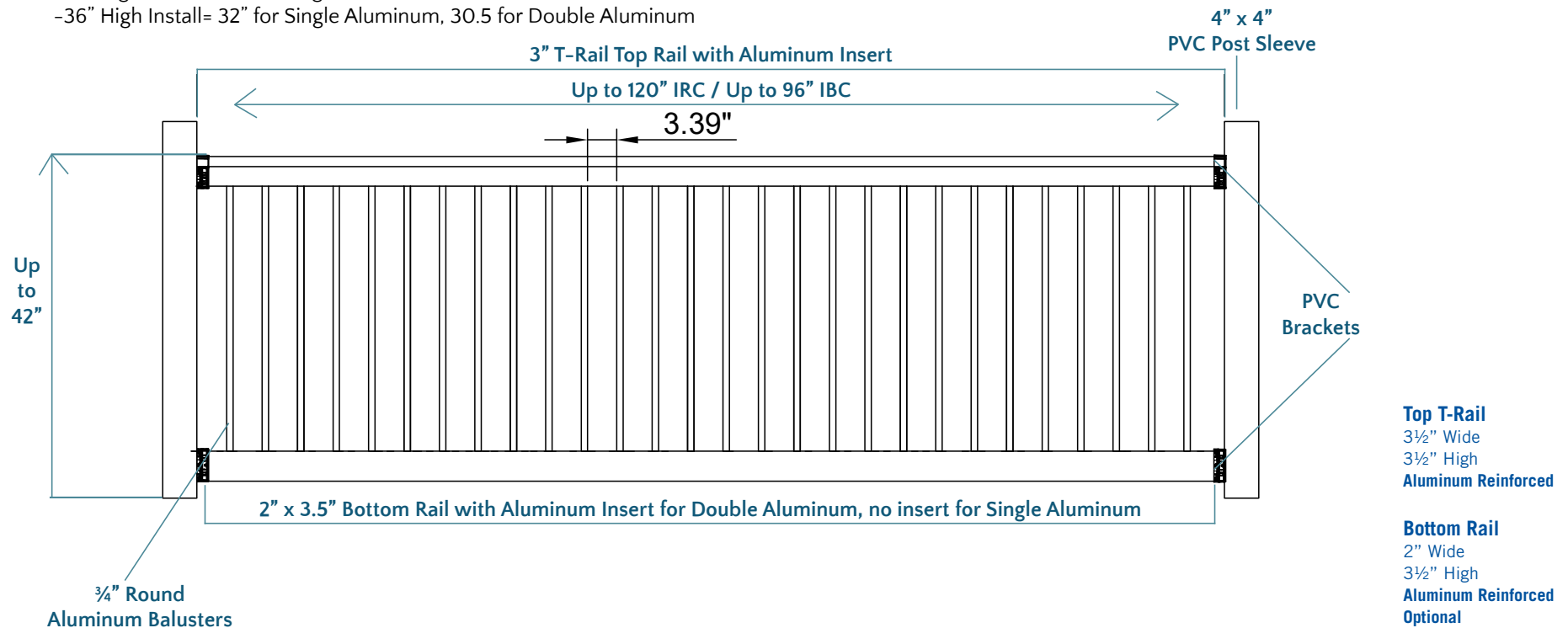
## STOCKING SUGGESTIONS



### 100 Series – Level Round Aluminum Baluster

**Notes:**

- For Testing information, see Intertek Report: K0895.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38" for Single Aluminum, 36.5" for Double Aluminum
  - 36" High Install= 32" for Single Aluminum, 30.5 for Double Aluminum

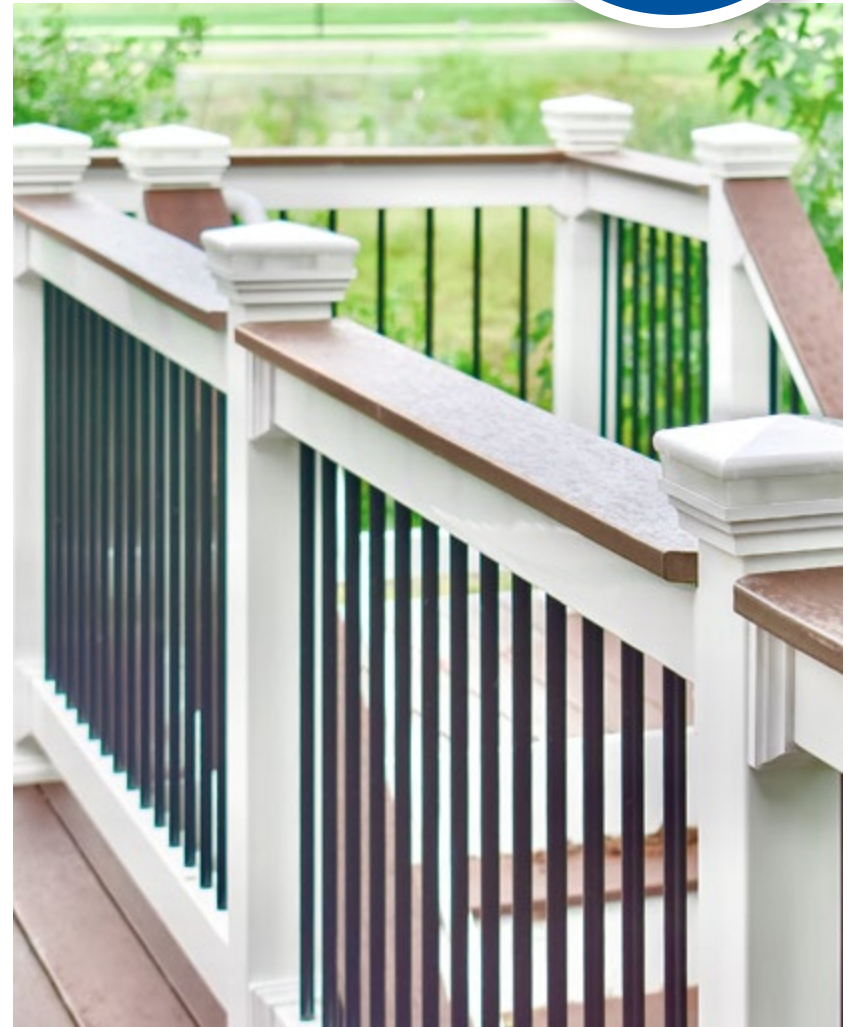


# MASTER HALCO VINYL RAILING SYSTEM

## SPECIAL ORDER OPTIONS AVAILABLE



**Master Halco Vinyl Railing** offers a huge selection of special order options including colors, balusters, rail choices, and more.



# MASTER HALCO ALUMINUM RAILING SYSTEM



# MASTER HALCO ALUMINUM RAILING SYSTEM



**Aluminum Railing** has fast become one of the most respected ornamental aluminum products in the railing industry.

*It's Simple, Attractive, Safe, and Affordable,* and ICC-ES AC273 certified, so you can start installing it on any floor today.



# MASTER HALCO ALUMINUM RAILING SYSTEM



- Available in 36" and 42" Heights
- Available in 6' & 8' Widths
- Available in Black, Bronze, and White
- ICC-ES AC273 Certified
- Flat Matte Finish
- 3/4" Pickets
- Highly Rackable
- Available for QuickShip Delivery
- 2.5" & 3" Posts Available
- Matching Gates Available
- Easy Bracket Install



# MASTER HALCO ALUMINUM RAILING SYSTEM STOCKING SUGGESTION



**SECTION: EOR6-36-BK & EOR8-36-BK**  
**36" H x 6' W & 8' W EO Railing Sections in BLACK**



# MASTER HALCO ALUMINUM RAILING SYSTEM



## STOCKING SUGGESTION

**SECTION: EOR-36-BK and EOR-36-BK**  
36" H x 6' W and 8' W EO Railing Sections in BLACK

**POST KIT: EOR25PK37-BK**  
Matching Post, Cap, and Skirt  
Included With a Base Plate

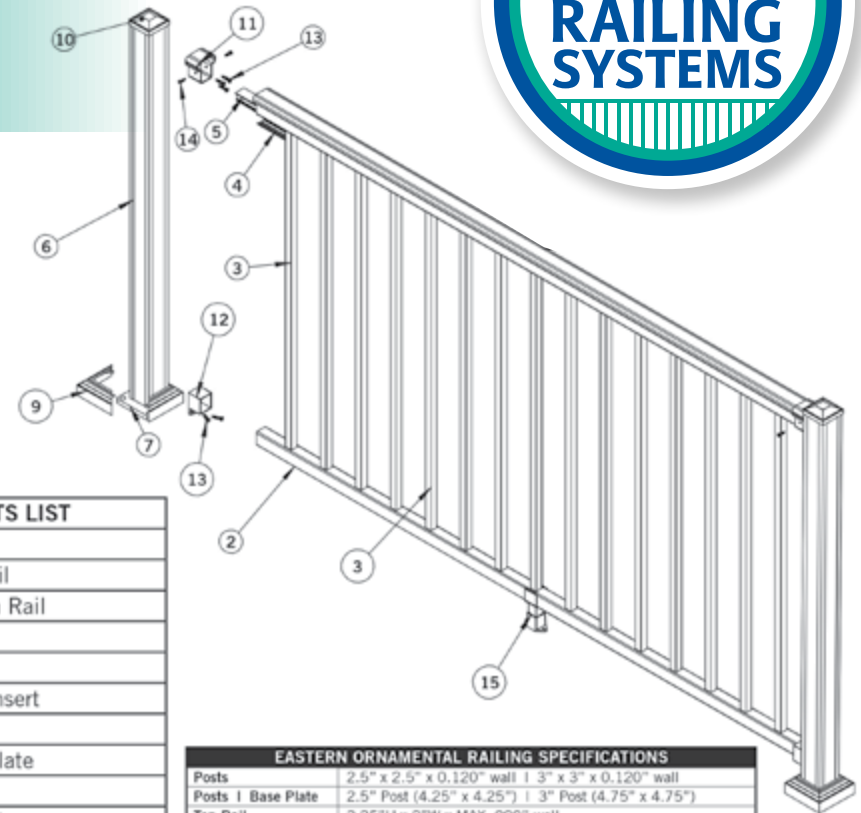
**STAIRS: EOR8ST-BK**  
Stair Conversion Kit  
(Uses same section as straight)

### ACCESSORIES:

EORBKIT-BK - Straight Section Brackets  
EORABKIT-BK - Straight Section Swivel Brackets  
EORFSTRK-BK - Stair Section Brackets  
EORSTRK-BK - Stair Adjustable Brackets  
EOR8ST-BK - Stair Conversion Kit  
(Uses EOR-36-BK Straight Section)

**GATE:**  
EORG-KIT-43-BK - Matching 36" H Gate

Sections come boxed with top handrail and bottom rail with pickets all as a knockdown section. (Brackets and Accessories Sold Separately.)



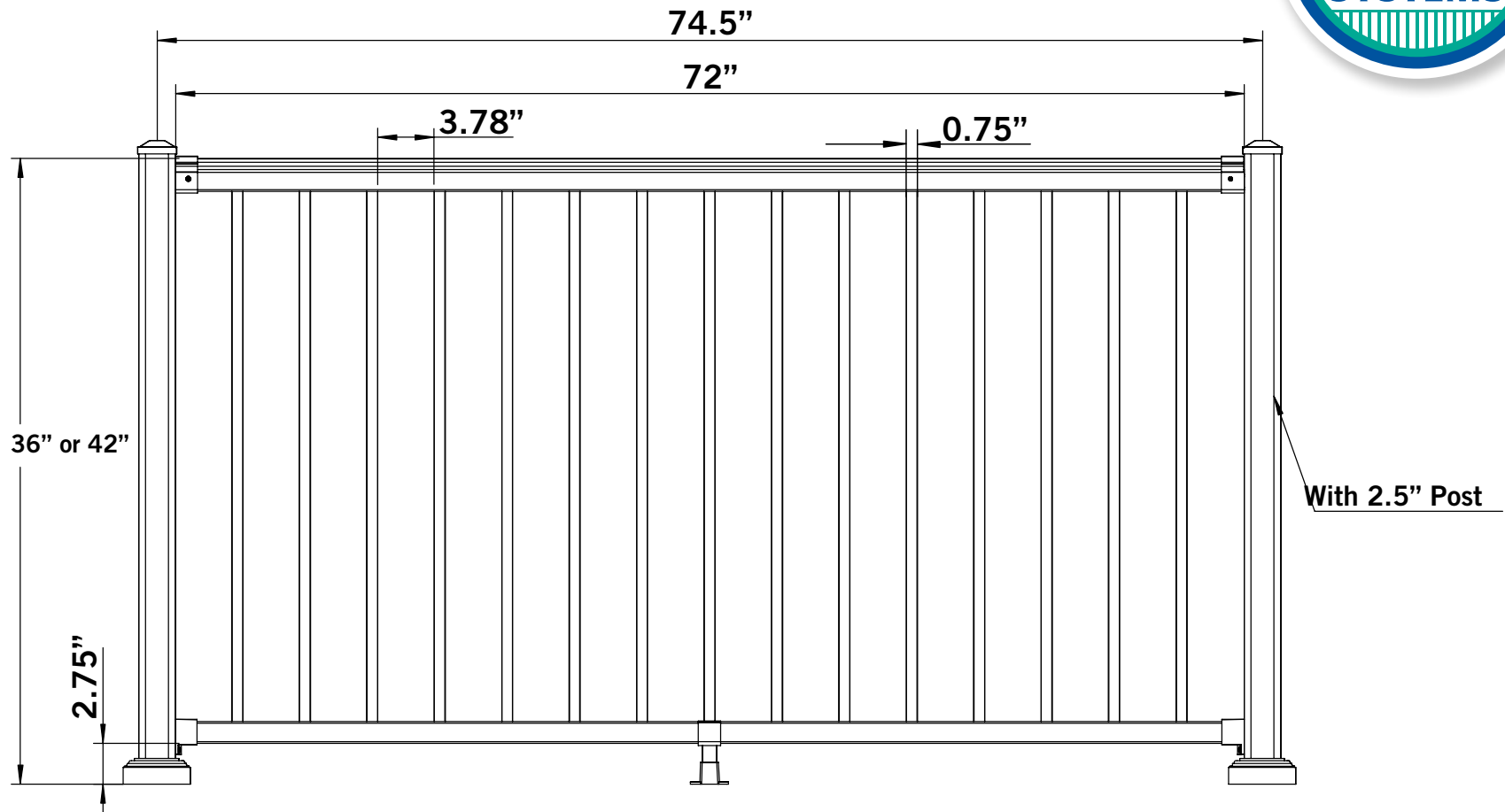
PARTS LIST	
#	Item
1	Top Rail
2	Bottom Rail
3	Picket
4	Spacer
5	Vinyl Insert
6	Post
7	Base Plate
8	Bolt
9	Post Trip
10	Post Cap
11	Top Bracket
12	Bottom Bracket
13	10# 1" Screw
14	8# 3/4" Screw
15	Foot Block Support

EASTERN ORNAMENTAL RAILING SPECIFICATIONS	
Posts	2.5" x 2.5" x 0.120" wall   3" x 3" x 0.120" wall
Posts   Base Plate	2.5" Post (4.25" x 4.25")   3" Post (4.75" x 4.75")
Top Rail	2.25"H x 2"W x MAX .090" wall
Bottom Rail	1.5"H x 1.25"W x MAX .050" wall
Pickets	.75" x .75" square x .050" wall
Picket Spacing	3.86" MAX
Heights	36" and 42"
Colors	Matte Finish Black
MATERIALS	
Posts	6061 T6 Aluminum Alloy
Rails	6061 T6 Aluminum Alloy
Pickets	6061 T6 Aluminum Alloy
Finish	Interpon Powder Coating   Reading, PA

Connection	Fastener
Top Rail Bracket to Post	Three #10 x 1", Self-drill, 304 Stainless Steel Screws
Bottom Rail Bracket to Post	Two #10 x 1", Self-drill, 304 Stainless Steel Screws
Top Rail Bracket to Rail	Two #8 x 3/4", Self-drill, 304 Stainless Steel Screws
Bottom Rail Bracket to Rail	No Mechanical Fastener



# MH STOCKING ALUMINUM RAILING: 6' WIDE



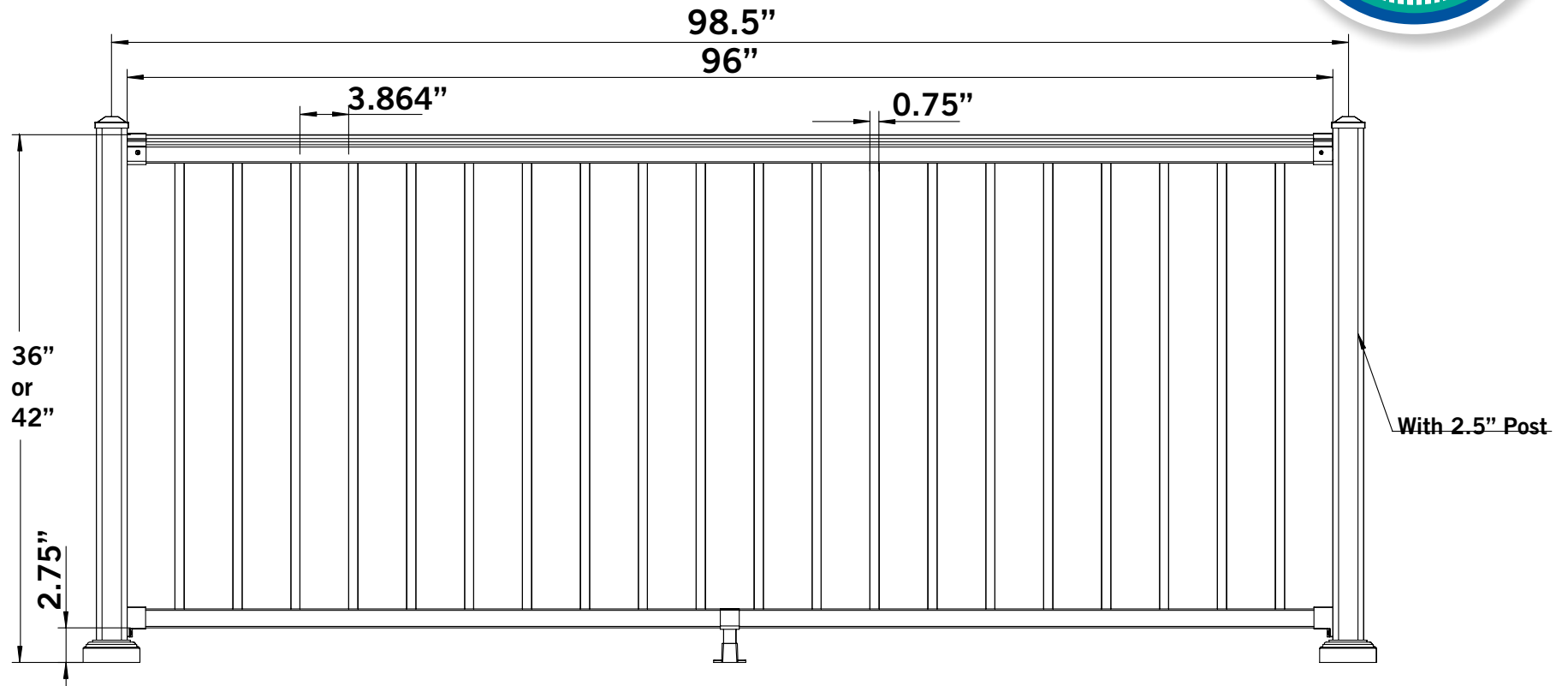
## EOR6-36-BK

### 36" Wide, Black Ornamental Aluminum Railing Sections

Aluminum Alloy #6061-T-6 | Standard Tolerance: 0.015 +/-

(NOTE: Sections are sold knockdown (unassembled and boxed) and include top and bottom rails, balusters, and spacers. Posts, brackets, footblocks, and caps sold separately.)

# MH STOCKING ALUMINUM RAILING: 8' WIDE



## EOR8-36-BK

### 36" High, 8' Wide, Black Ornamental Aluminum Railing Sections

Aluminum Alloy #6061-T-6 | Standard Tolerance: 0.015 +/-

(NOTE: Sections are sold knockdown (unassembled and boxed) and include top and bottom rails, balusters, and spacers. Posts, brackets, footblocks, and caps sold separately.)

# ALUMINUM RAILING SYSTEM

## SPECIAL ORDER OPTIONS AVAILABLE



**ALL** Master Halco Aluminum Railing sections and accessories are available through special order.

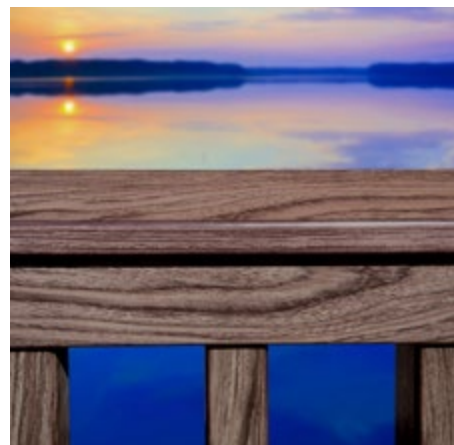
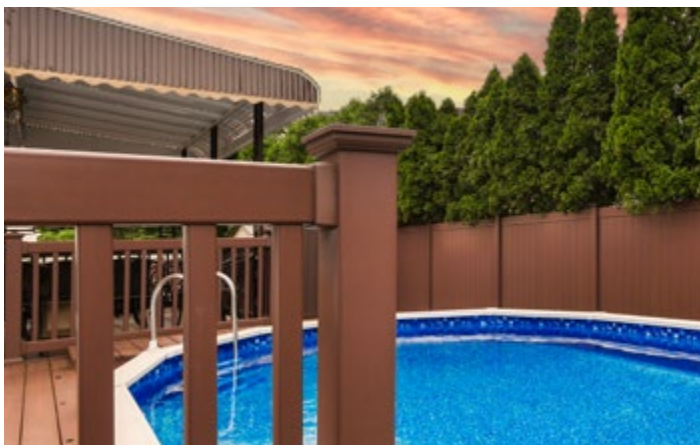
This simply means that job-lot and truckload ordering and delivery is fully available to you at any and all times.



# MASTER HALCO COLOR & WOODGRAIN VINYL RAILING



# MH COLOR & WOODGRAIN VINYL RAILING



# MH COLOR & WOODGRAIN VINYL RAILING



- Available in 35 Colors and 4 Woodgrains
- Mix 'n' Match Colors and Woodgrains
- Easy Installation
- Perfect for Both Residential and Commercial
- Meets the Highest Building Codes in the Nation
- 100% Pure Virgin Vinyl
- ICC-ES AC-174 Certified
- ASTM F964 Compliant

ALL MASTER HALCO COLOR AND WOODGRAIN VINYL RAILING IS CUSTOM ORDER.

OPTIONS AVAILABLE



# MH CUSTOM VINYL RAILING: 100 SERIES



## DEFINITIONS:

### COMPLETE RAIL ASSEMBLIES

Include top & bottom rails, aluminum insert(s), baluster set, four mounting brackets, & hardware.

### RAILING KITS

Include top & bottom rails, aluminum insert(s), four mounting brackets, hardware, and no balusters (ordered separately)

**Top T-Rail**  
 3½" Wide  
 3½" High  
 Aluminum Reinforced

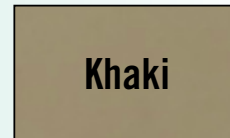
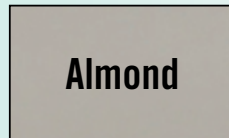


- 110 - Single Aluminum Reinforced
- 120 - Double Aluminum Reinforced



**Bottom Rail**  
 2" Wide  
 3½" High  
 Aluminum Reinforced  
 Optional

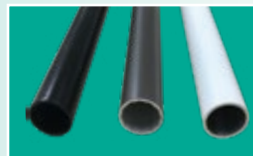
## Standard Colors



NOTE: Actual colors may vary. Color samples are available

## Aluminum Baluster Options

Available in Round or Square in Black, Bronze, & White!



Accessorize with basket or collar accents!



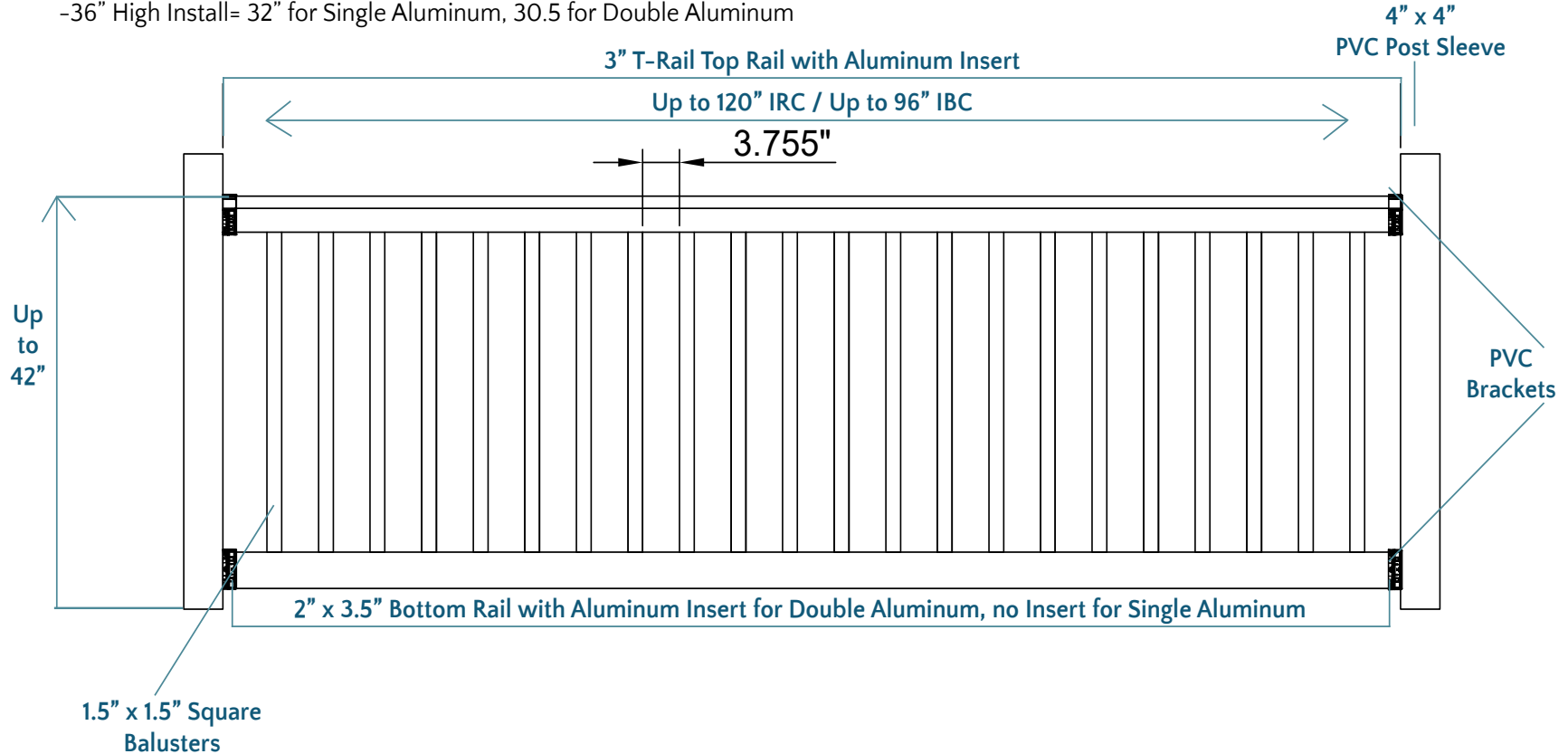
# MH CUSTOM VINYL RAILING: 100 SERIES



## 100 Series - Level Square Baluster

### Notes:

- For Testing information, see Intertek Report: K0895.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38" for Single Aluminum, 36.5" for Double Aluminum
  - 36" High Install= 32" for Single Aluminum, 30.5 for Double Aluminum





# MH CUSTOM VINYL RAILING: 200 SERIES



## DEFINITIONS:

### COMPLETE RAIL ASSEMBLIES

Include top & bottom rails, aluminum insert(s), baluster set, four mounting brackets, & hardware.

**RAILING KITS...** include top & bottom rails, aluminum insert(s), four mounting brackets, hardware, and no balusters (ordered separately).

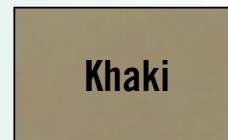
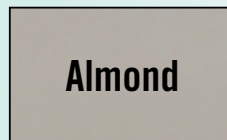
- 210 - Single Aluminum Reinforced
- 220 - Double Aluminum Reinforced

**Top T-Rail**  
2" Wide  
3½" High  
**Aluminum Reinforced**  
(Deck board sold separately)



**Bottom Rail**  
2" Wide  
3½" High  
**Aluminum Reinforced**  
Optional

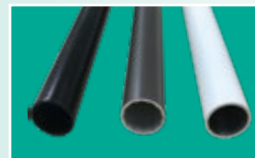
## Standard Colors



NOTE: Actual colors may vary. Color samples are available

## Aluminum Baluster Options

Available in Round or Square in Black, Bronze, & White!



Accessorize with basket or collar accents!



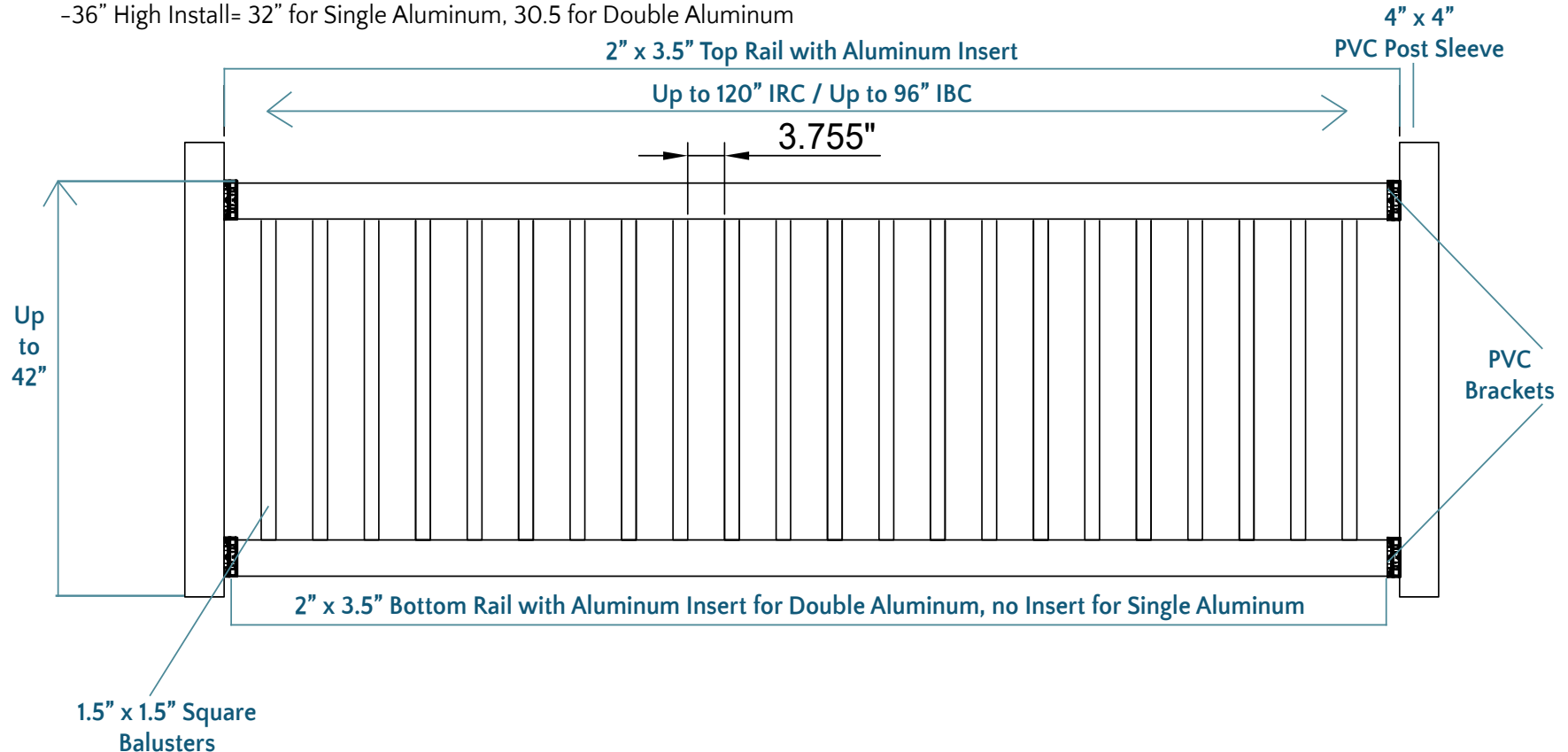
# MH CUSTOM VINYL RAILING: 200 SERIES



## 200 Series - Level Square Baluster

### Notes:

- For Testing information, see Intertek Report: K0895.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38" for Single Aluminum, 36.5" for Double Aluminum
  - 36" High Install= 32" for Single Aluminum, 30.5 for Double Aluminum



# MH CUSTOM VINYL RAILING: WARRIOR 300 SERIES



## DEFINITIONS:

### COMPLETE RAIL ASSEMBLIES

Include top & bottom rails, aluminum insert(s), baluster set, four mounting brackets, & hardware.

**320** - Double Aluminum Reinforced

**Top T-Rail**  
3" Wide  
1 3/4" High  
Aluminum Reinforced

## Designer Balusters



**Shaker**  
1 1/4" x 1 1/4"  
Available in White Only



**Bottom Rail**  
2" Wide  
2 1/4" High  
Aluminum Reinforced

## Standard Colors

White

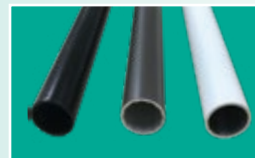
Almond

Khaki

NOTE: Actual colors may vary. Color samples are available

## Aluminum Baluster Options

Available in Round or Square in Black, Bronze, & White!



Accessorize with basket or collar accents!



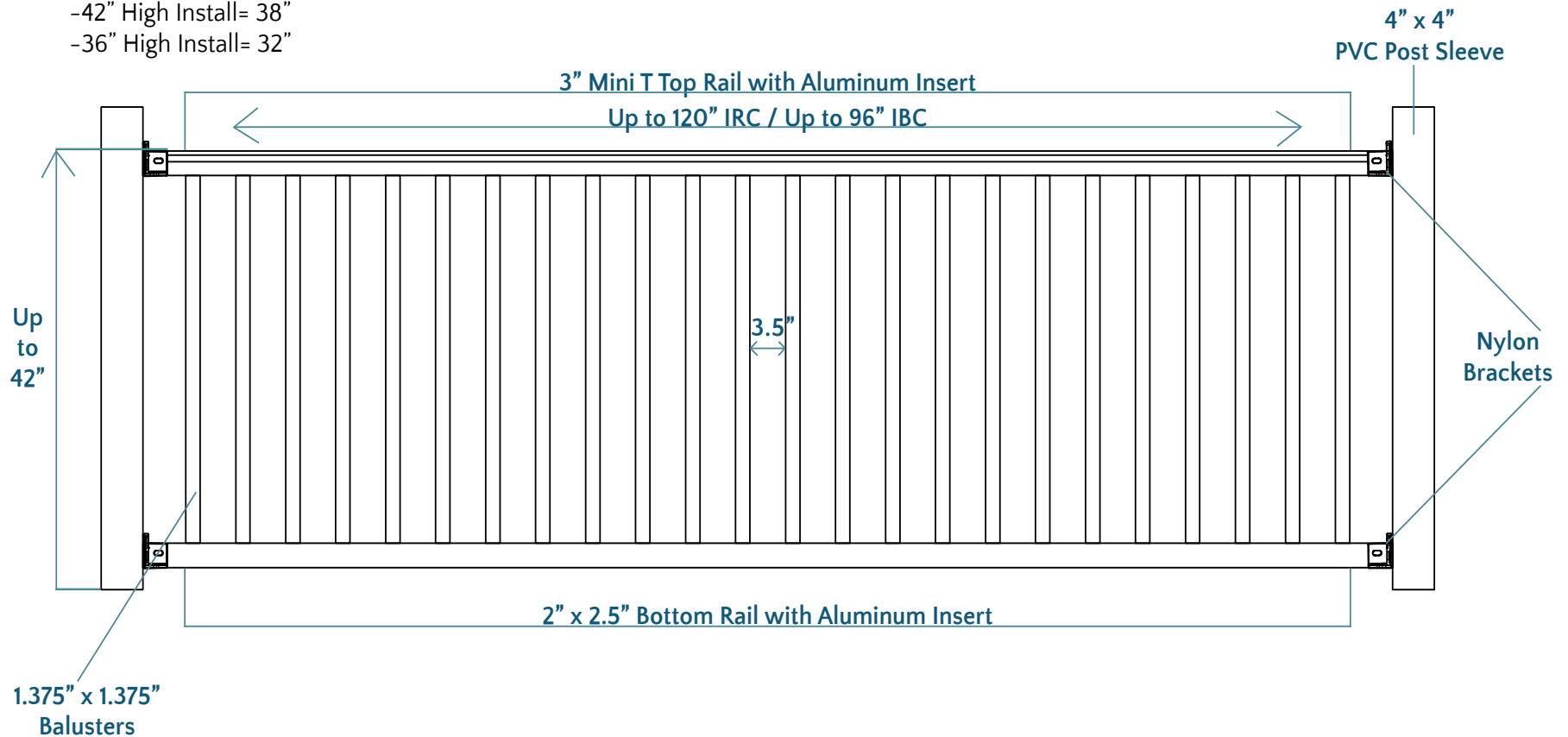
# MH CUSTOM VINYL RAILING: WARRIOR 300 SERIES



## 300 Series – Level Square Baluster

### Notes:

- For Testing information, see Intertek Report: K3392.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38"
  - 36" High Install= 32"



# MH CUSTOM VINYL RAILING: 600 SERIES



## DEFINITIONS:

### COMPLETE RAIL ASSEMBLIES

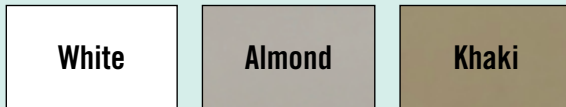
Include top & bottom rails, aluminum insert(s), baluster set, four mounting brackets, & hardware.

### 620 - Double Aluminum Reinforced

**Top T-Rail**  
3" Wide  
1 3/4" High  
Aluminum Reinforced



## Standard Colors



NOTE: Actual colors may vary. Color samples are available

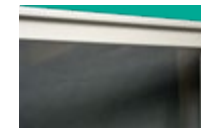
## Designer Balusters



**Shaker**  
1 1/4" x 1 1/4"  
Available in White Only



**Glass**  
4"  
Residential Height Only



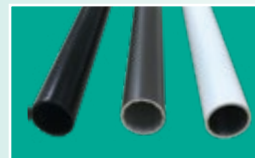
**Acrylic Panel**  
6' or 8' Wide  
Residential Height Only



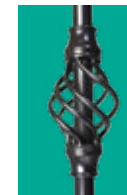
**Bottom Rail**  
2" Wide  
2 1/4" High  
Aluminum Reinforced

## Aluminum Baluster Options

Available in Round or Square in Black, Bronze, & White!



Accessorize with basket or collar accents!



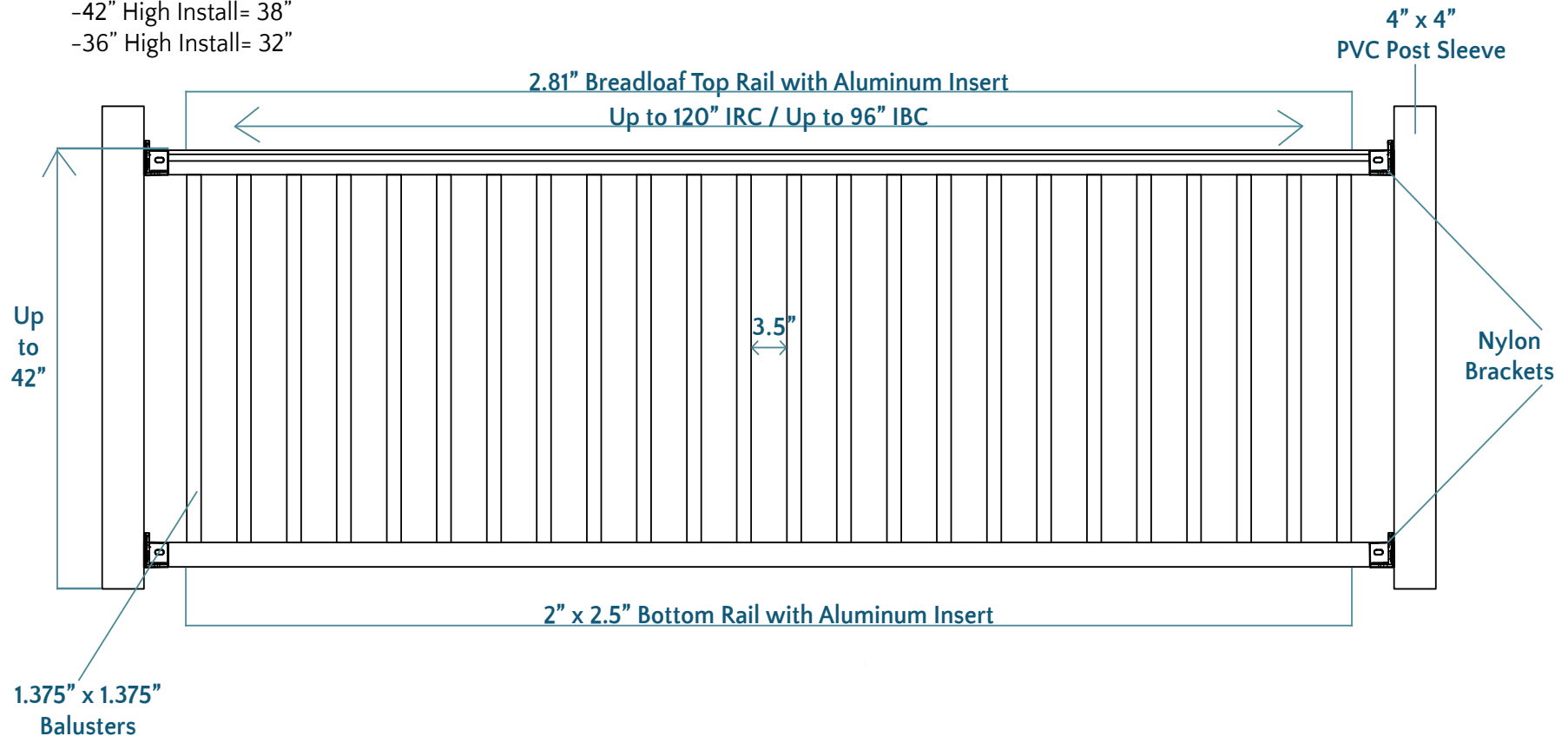
# MH CUSTOM VINYL RAILING: 600 SERIES



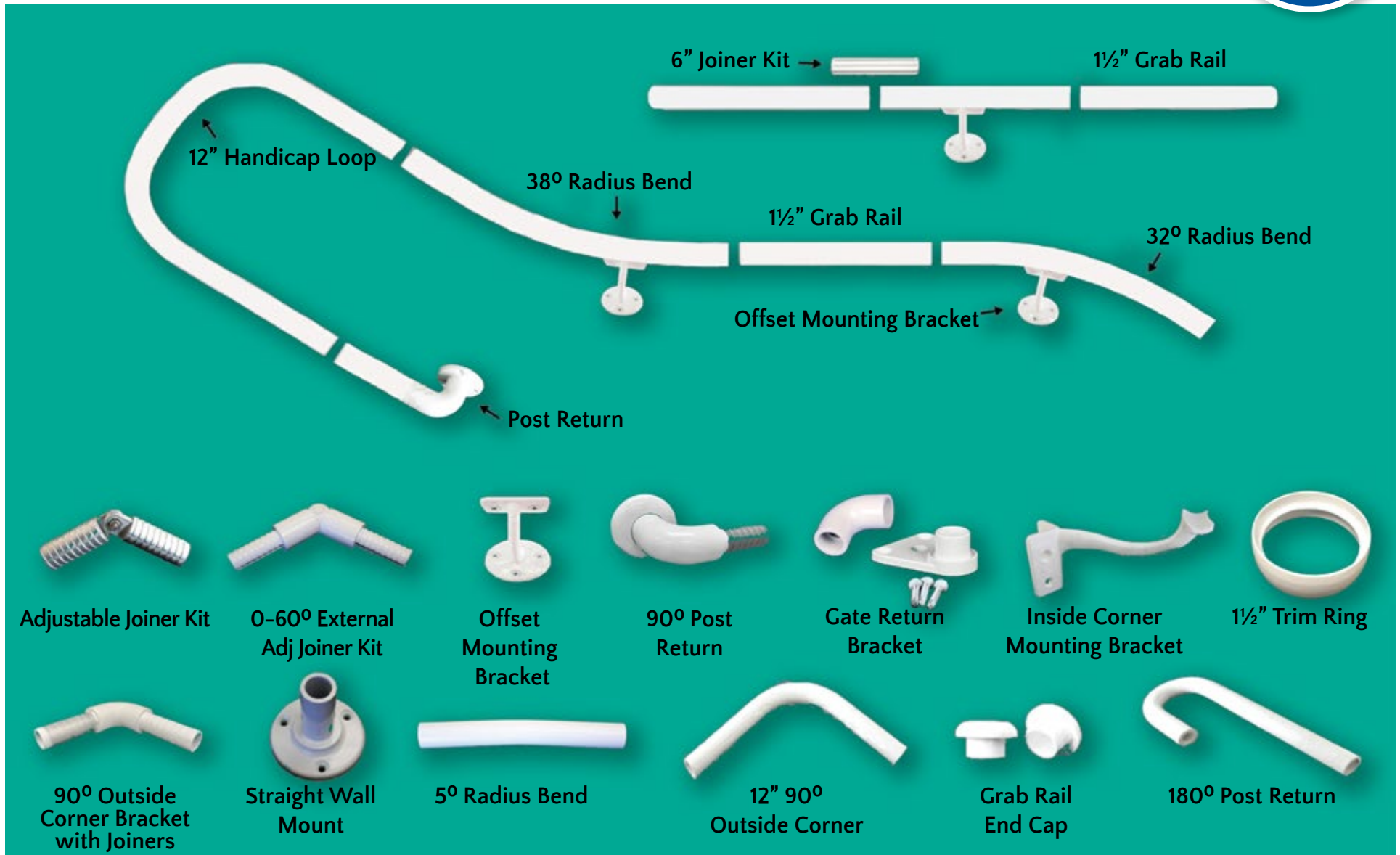
## 600 Series – Level Square Baluster

### Notes:

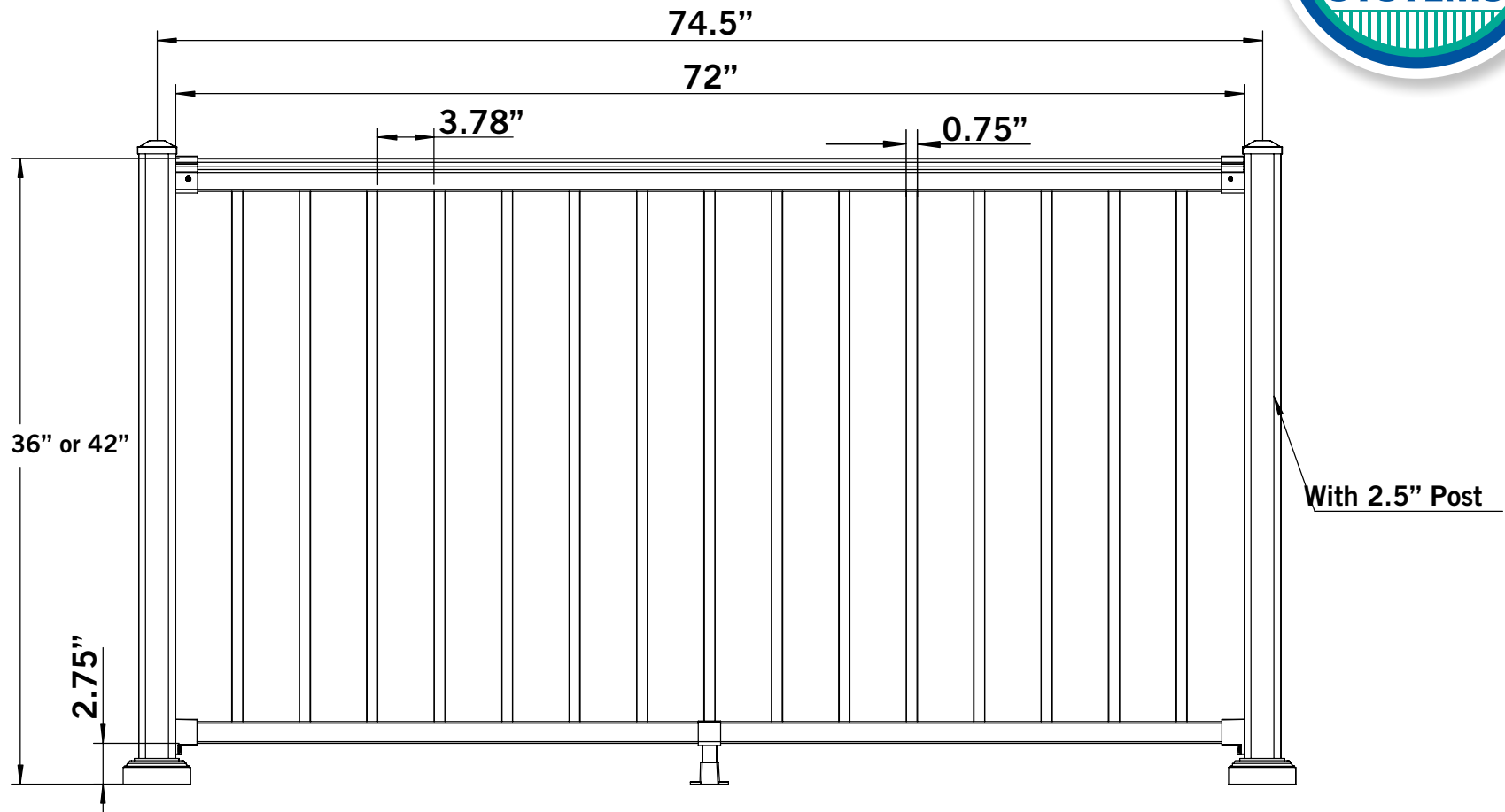
- For Testing information, see Intertek Report: J4111.01-119-19
- This rail system may be installed up to 42" in height & 120" in width
  - IBC Approved up to 96"
  - IRC Approved up to 120"
- Baluster Lengths
  - 42" High Install= 38"
  - 36" High Install= 32"



# MH CUSTOM VINYL RAILING: SECONDARY HANDRAIL



# MH CUSTOM ALUMINUM RAILING: 6' WIDE



## EOR6-36-BK

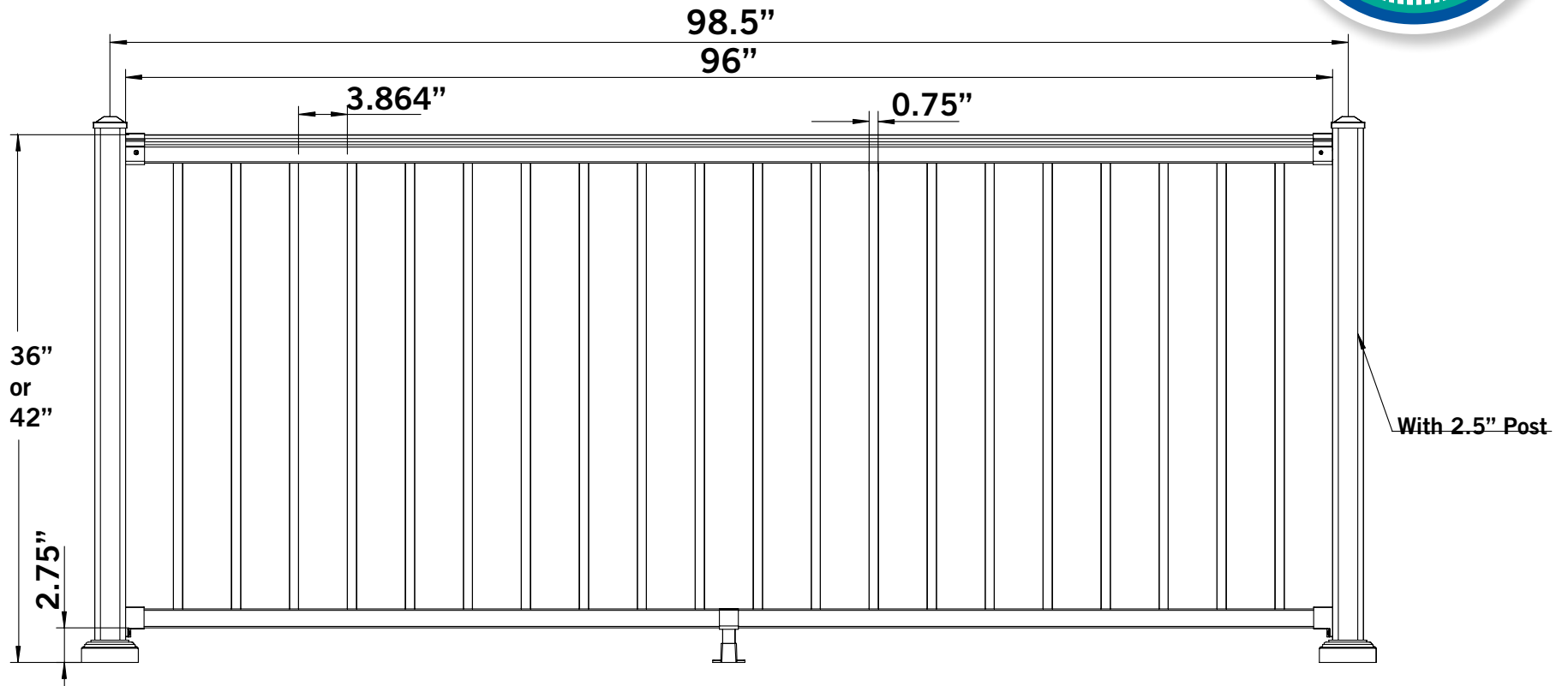
### 36" Wide, Black Ornamental Aluminum Railing Sections

Aluminum Alloy #6061-T-6 | Standard Tolerance: 0.015 +/-

(NOTE: Sections are sold knockdown (unassembled and boxed) and include top and bottom rails, balusters, and spacers. Posts, brackets, footblocks, and caps sold separately.)



# MH CUSTOM ALUMINUM RAILING: 8' WIDE



## EOR8-36-BK

### 36" High, 8' Wide, Black Ornamental Aluminum Railing Sections

Aluminum Alloy #6061-T-6 | Standard Tolerance: 0.015 +/-

(NOTE: Sections are sold knockdown (unassembled and boxed) and include top and bottom rails, balusters, and spacers. Posts, brackets, footblocks, and caps sold separately.)

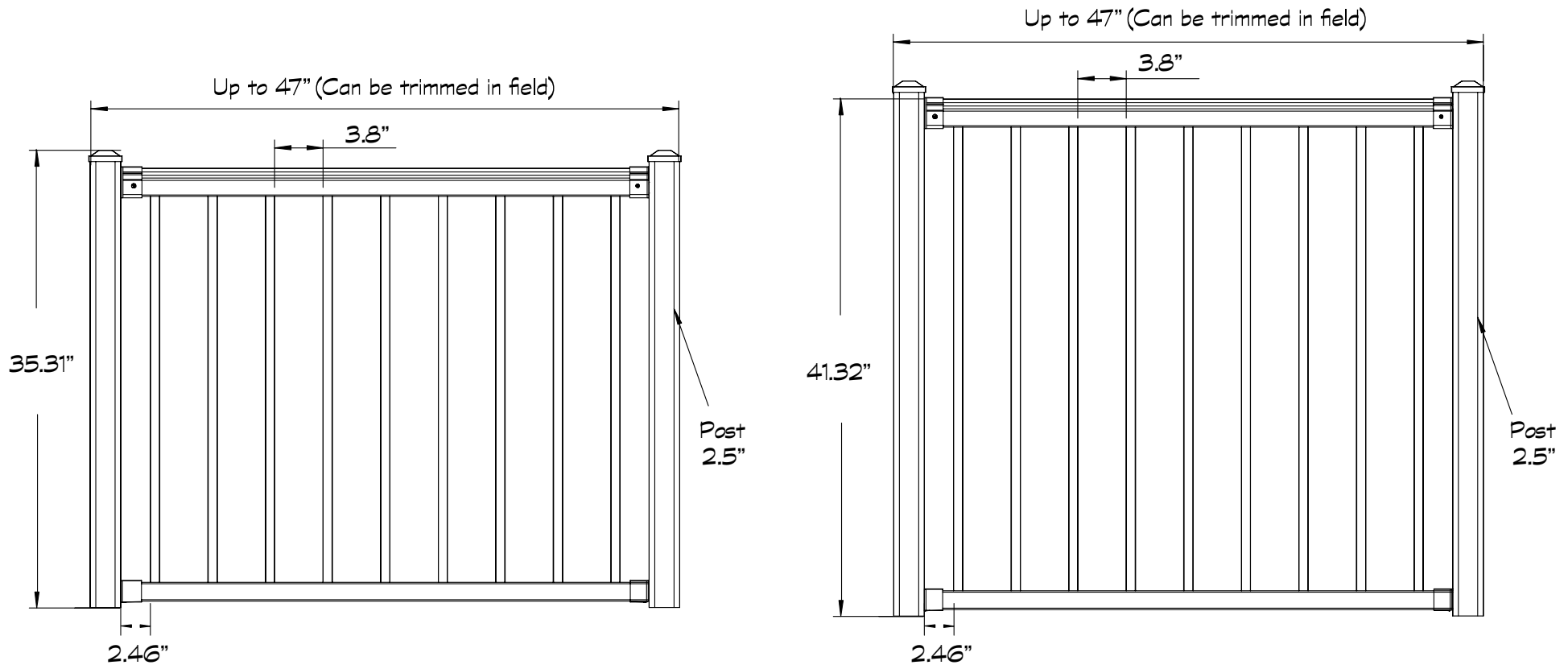
# MH CUSTOM ALUMINUM RAILING - GATES



## UNIVERSAL GATE KITS FOR UP TO 48" WIDE OPENINGS

### Each Gate Kit Includes:

- 1 - Top Rail
- 1 - Bottom Rail
- 9 - 3/4" Square Pickets
- 2 - 3/4" Vinyl Inserts
- 2 - 2-1/2" Uprights (Rail Mounts Pre-Welded to Uprights)
- 2 - 2-1/2" Post Caps for Uprights
- 1 - Pair of Self Closing Hinges
- 1 - Latch



# MH CUSTOM COLOR & WOODGRAIN VINYL RAILING:



From the tallest skyscraper to your front porch, Master Halco Vinyl Railing System is the perfect choice for your next railing installation. Made of 100% Pure Virgin Vinyl, all styles are available in 35 colors and 5 wood grains.



## ICC-ES AC174 Certified

ICC-ES AC174 is the industry accepted criteria for recognition of compliance with the following building codes: International Residential Code (IRC), International Building Code (IBC), and Abu Dhabi International Building Code (ADIBC).



## ASTM F964 Compliant

ASTM F964 is considered the most recognized testing specification for vinyl.

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.



## Made in the U.S.A.

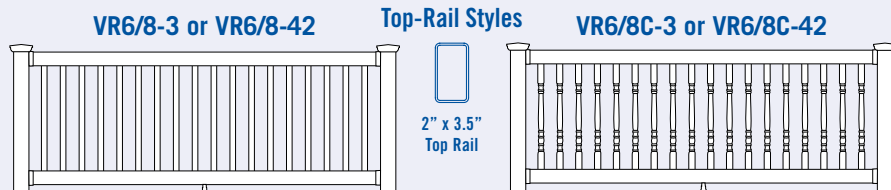
The company manufacturing Master Halco Vinyl Railing System has been in the railing and fence manufacturing industry for over 50 years. Master Halco Vinyl Railing is proudly manufactured in the United States of America.

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING



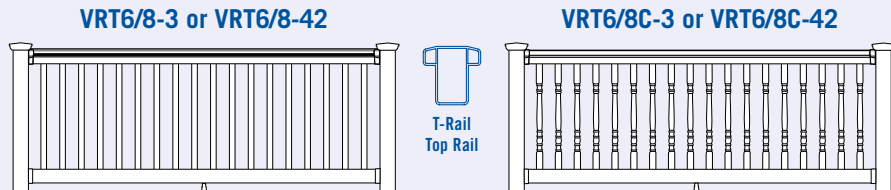
## Railing Styles

“Commercial Strength With Residential Beauty”



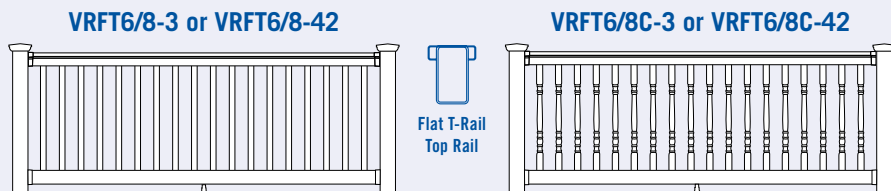
3' or 42" Height Traditional Pkt. 1.5" x 1.5",  
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide

3' or 42" Height Colonial Spindle Pkt.,  
2" x 3.5" Top and Bottom Rail, 6' or 8' Wide



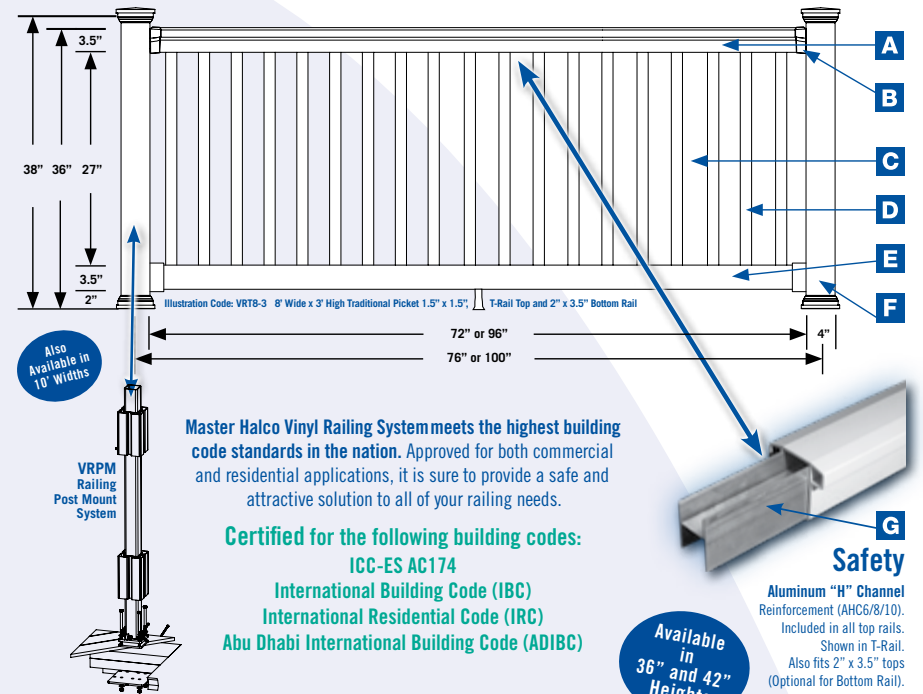
3' or 42" Height Traditional Pkt. 1.5" x 1.5",  
T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide

3' or 42" Height Colonial Spindle Pkt.,  
T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide



3' or 42" Height Traditional Pkt. 1.5" x 1.5",  
Flat T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide

3' or 42" Height Colonial Spindle Pkt.,  
Flat T-Rail Top and 2" x 3.5" Bottom Rail, 6' or 8' Wide



Master Halco 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  
International Building Code (IBC)  
International Residential Code (IRC)  
Abu Dhabi International Building Code (ADIBC)

- A** Top Rail  
VRT6/8-3 T-Rail Top  
VR6/8-3 2" X 3.5" Top  
VRFT6/8-3 Flat T-Rail 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\*  
VRFRTRK Flat T-Rail Hand Rail  
VRSFRTRK Flat T-Rail Stair Rail\*
- C** Picket Spacing  
20 Spaces of 3.375" (8' Wide)  
15 Spaces of 3.4" (6' Wide)
- D** Pickets  
19 Pickets (8' Wide)  
14 Pickets (6' Wide)  
of 1.5" x 1.5" or  
Colonial Spindle Style
- E** Bottom Rail  
All 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 (AHC6/8/10)

Available in 36" and 42" Heights

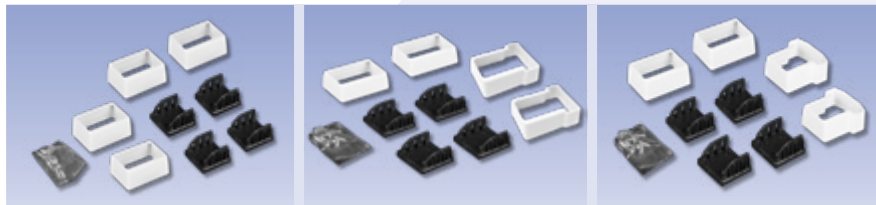
\*(For 30-43 Degree Stairs)

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING



## Accessories

Simple to order matching accessories for your Master Halco Vinyl Railing System



**VR235K**

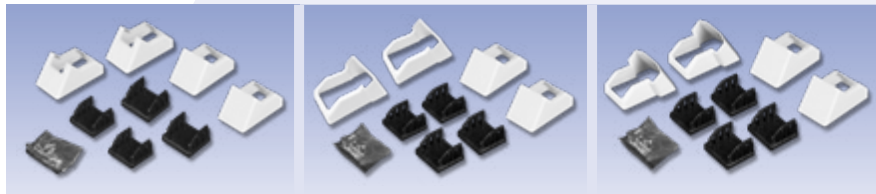
2" x 3.5" HAND RAIL KIT

**VRFTRK**

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

**VR235TRK**

T-RAIL HAND RAIL 2" x 3.5" KIT



**VRS235K**

2" x 3.5" STAIR RAIL KIT

**VRSFTRK**

FLAT T-RAIL STAIR RAIL KIT

**VRSTRK**

T-RAIL STAIR RAIL KIT



**VRM235AH**

RAIL MOUNT BRACKETS 2" X 3.5" ADJUSTABLE HORIZONTAL

**VRMTRAH**

RAIL MOUNTS BRACKET T-RAIL ADJUSTABLE HORIZONTAL

**VRM235AV**

RAIL MOUNT BRACKETS 2" X 3.5" ADJUSTABLE VERTICAL

**VRMTRAV**

RAIL MOUNTS BRACKET T-RAIL ADJUSTABLE VERTICAL



**EXTERNAL FLAT**  
V44FO



**NEW ENGLAND**  
V44NE



**BALL**  
V44BC



**GOthic**  
V44FG



**TEARDROP**  
V44TD



**COACHMAN**  
V44CM



**SOLAR**  
V44SO



**PALACE SOLAR**  
V55P



**VRT45AK**  
T-RAIL 45° ADPT. KIT



**VR23545AK**  
2" x 3.5" 45° ADPT. KIT



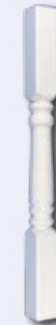
**VRTRAK**  
T-Rail X 8" Round Column Adaptor Kit



**VR235RAK**  
2" X 3.5" RL X 8" Round Adaptor Kit



**VRSRAK**  
Stair Rail to 8" Round Adaptor Kit

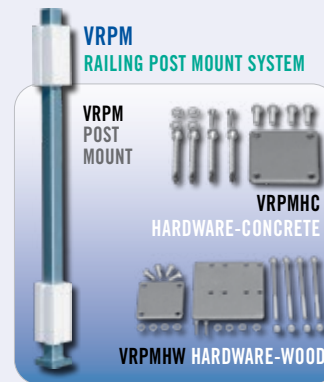


**VRNP44-48**  
4" x 4" x 48" NEWEL POST



Load Bearing up to 3,400 lbs!

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



**VRPM**  
RAILING POST MOUNT SYSTEM

**VRPM**  
POST MOUNT

**VRPMHC**  
HARDWARE-CONCRETE

**VRPMHW**  
HARDWARE-WOOD



**VRFBK**  
3 PIECE FOOT BLOCK KIT



**V44PS**  
4" x 4" POST SKIRT



**VRSSK**

Screw Kit with Instructions (Required for ICC-ES AC114 Certified Installation)

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING



# COLOR OPTIONS

## Color Vinyl Railing!

All Master Halco Railing Styles are available in ALL colors!

Master Halco Color Railing is the next evolution of a product. Choose from 32 different low gloss colors of vinyl railing. You can even Mix 'n' Match your colors to create incredible home accent matching railing installations.



Black

Brown

Hunter Green

Slate Gray

## “FOCUS COLORS”

### Color Vinyl Railing Colors

The above four colors are called “FOCUS COLORS.” They are considered some of the most popular styles in the catalog.

ALL COLORS SHOWN ARE APPROXIMATE. SEE PHYSICAL SAMPLE FOR ACTUAL COLOR.

- 32 Principal Color Choices
- Low Gloss Matte Finish
- Available in All Styles
- Mix 'n' Match™ Your Colors
- Sky2Blue™ Color Protection



VRT6-42 - 6' wide by 42" high Traditional baluster (1-1/2" x 1-1/2"), T-Rail top rail and 2" x 3.5" bottom rail in Hunter Green

## “DESIGNER SERIES COLORS”

All of these beautiful low gloss colors are created to match common home accent colors. You can Mix 'n' Match them with any other colors as well.

ALL STYLES AVAILABLE IN ALL COLORS.  
Colors shown are approximate. See physical sample for actual color.



### Need a custom color?

Give us a swatch and we'll match it!

The "Designer Series" allows you to match any color. This creates limitless color possibilities for any railing application.



# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING



# COLOR OPTIONS

## MASTER HALCO WOODGRAIN

The Most Authentic Vinyl Woodgrain in the Railing Industry!

"No other product even comes close..."

With the unmatched detail of real wood and the low maintenance advantage of vinyl, you are sure to fall in love with Master Halco Woodgrain Vinyl Railing. It looks just like 5 gorgeous cuts of pre-stained wood railing with a low gloss matte finish. Your friends will be knocking on it asking if it's real.

You can even Mix 'n' Match Master Halco Woodgrain Vinyl Railing with any other colors or woodgrains to create your own unique railing creations. No other product even comes close to this versatility.



Mahogany

Walnut

Rosewood

Eastern White Cedar

Driftwood

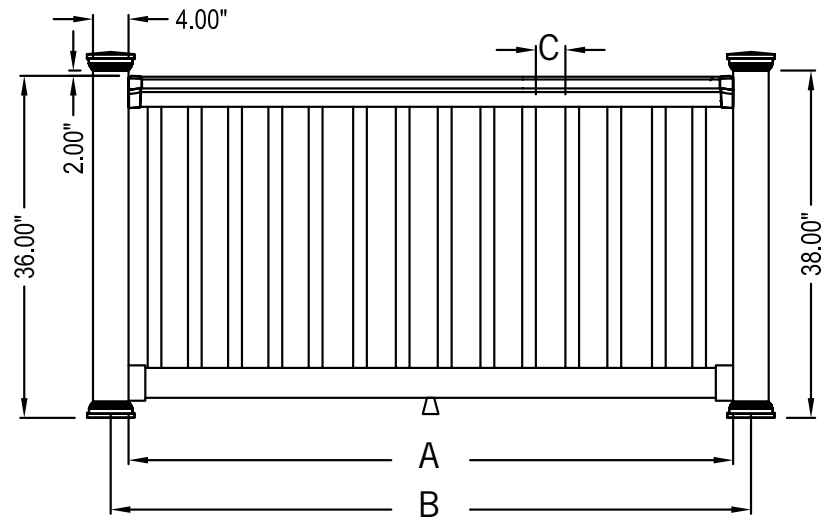


Master Halco Vinyl Railing Grains Are Available in Both 2" x 3.5" Rail and Flat T-Rail Styles with Traditional 1-1/2" x 1-1/2" Balusters

ALL COLOR SWATCHES SHOWN ARE APPROXIMATE. SEE PHYSICAL SAMPLE FOR ACTUAL COLOR.

(ABOVE) Walnut VRFXT6/8-36/42 - 36" or 42" high traditional baluster (1-1/2" x 1-1/2"), Flat T-Rail top rail and 2" x 3.5" bottom rail in 6', 8', or 10' wide knockdown (boxed) standard and stair rail sections.

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H T-RAIL WITH TRADITIONAL BALUSTERS

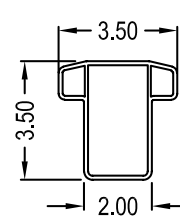
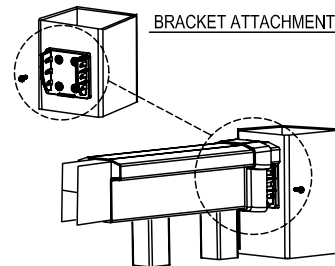


## VRXT6-3 & VRXT8-3 Standard Sections VRXST6-3 & VRXST8-3 Stair Sections

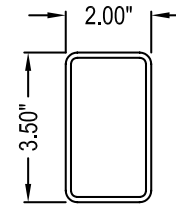
3' High Traditional Baluster (1-1/2" x 1-1/2"), T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6 or 8' Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- T-Rail not available in woodgrains

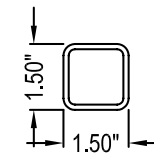
WIDTHS (ABOVE)			
	A	B	C
VRXT6-3	72.00"	76.00"	3.40"
VRXT8-3	96.00"	100.00"	3.375"



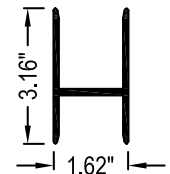
2" X 3.5" T-RAIL AS TOP RAIL



2" X 3.5" AS BOTTOM RAILS



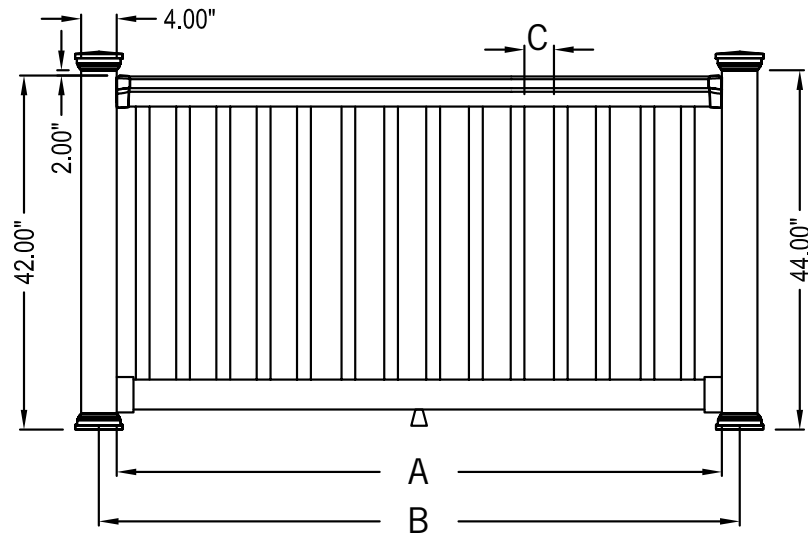
1.5" X 1.5" PICKET (14 EA)



METAL "H" CHANNEL INSIDE TOP RAIL FOR REINFORCEMENT



# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H T-RAIL WITH TRADITIONAL BALUSTERS

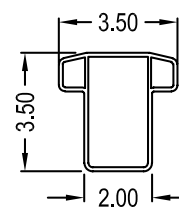
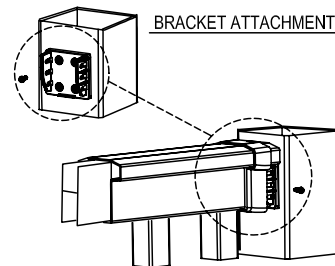


## VRXT6-42 & VRXT8-42 Standard Sections VRXST6-42 & VRXST8-42 Stair Sections

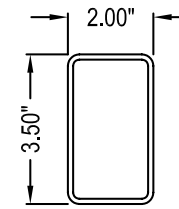
42" High Traditional Baluster (1-1/2" x 1-1/2"), T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- T-Rail not available in woodgrains

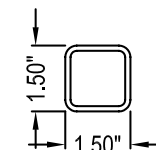
WIDTHS (ABOVE)			
	A	B	C
VRXT6-42	72.00"	76.00"	3.40"
VRXT8-42	96.00"	100.00"	3.375"



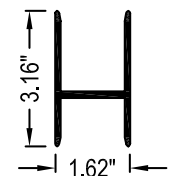
2" X 3.5" T-RAIL AS TOP RAIL



2" X 3.5" AS BOTTOM RAILS

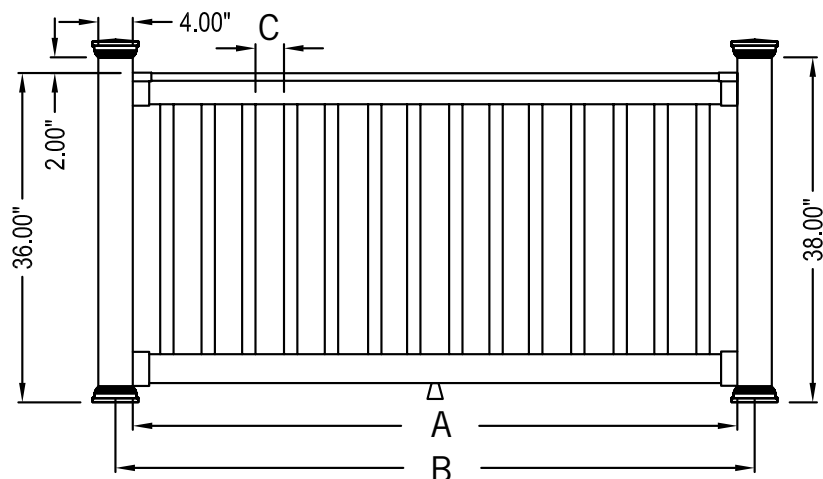


1.5" X 1.5" PICKET (14 EA)



METAL "H" CHANNEL INSIDE TOP RAIL FOR REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H FLAT T-RAIL WITH TRADITIONAL BALUSTERS

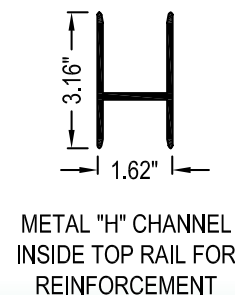
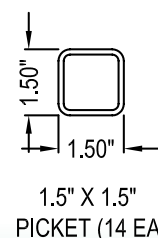
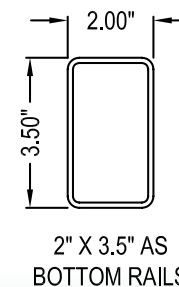
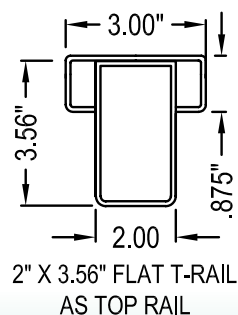
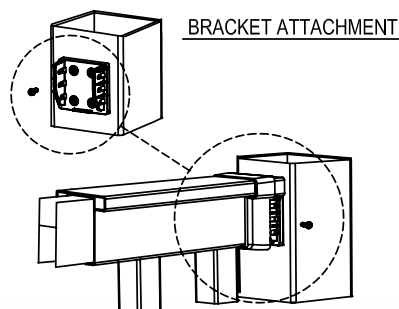


## VRFXST6-3 & VRFXST8-3 VRFXST6-3 & VRFXST8-3

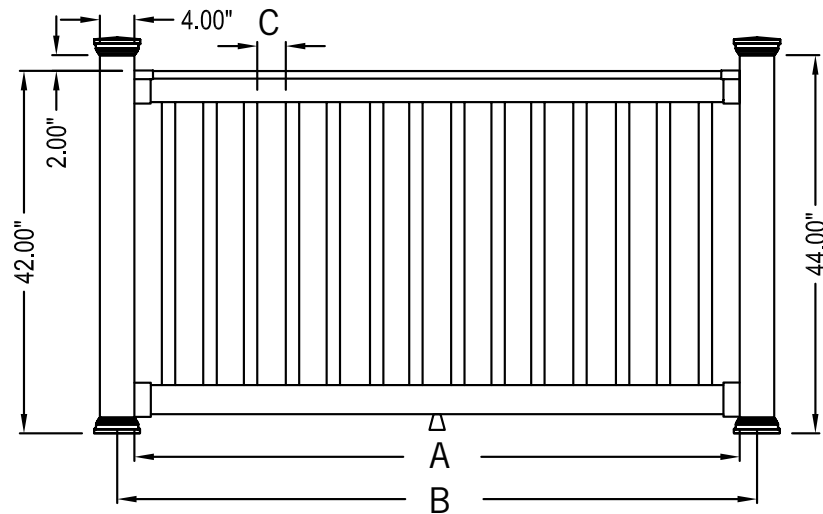
3' High Traditional Baluster (1-1/2" x 1-1/2"), Flat T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors and woodgrains

WIDTHS (ABOVE)			
	A	B	C
VRXFT6-3	72.00"	76.00"	3.40"
VRXFT8-3	96.00"	100.00"	3.375"



# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H FLAT T-RAIL WITH TRADITIONAL BALUSTERS

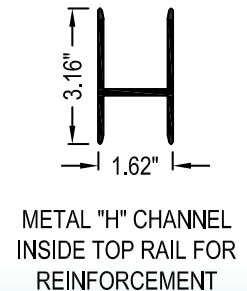
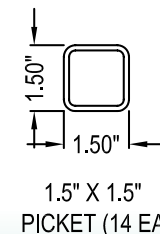
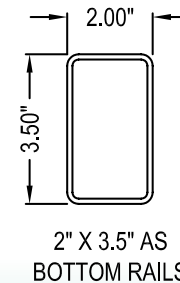
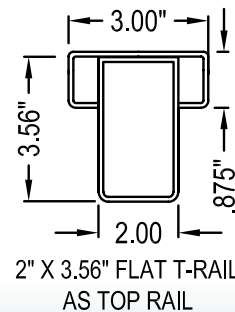
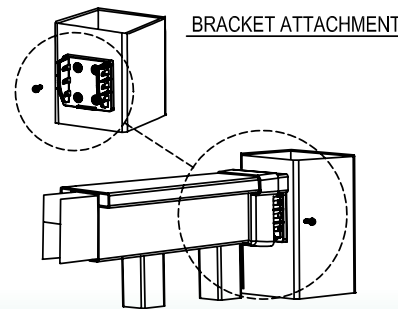


## VRFXST6-42 & VRFXST8-42

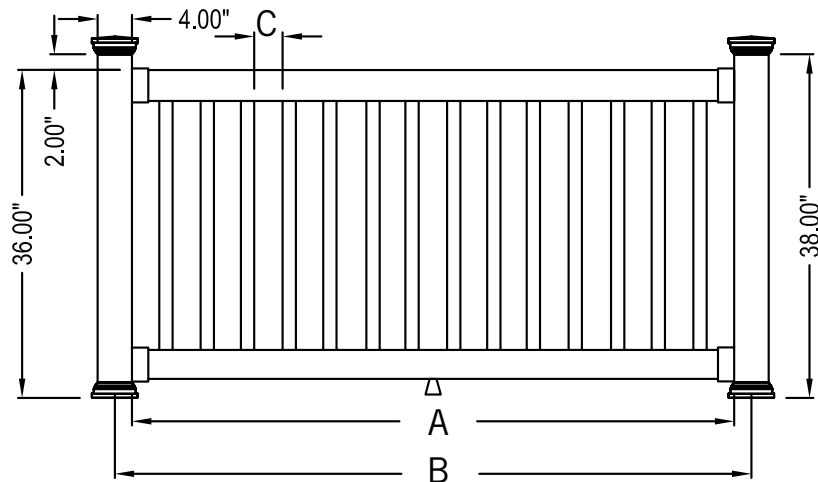
42" High Traditional Baluster (1-1/2" x 1-1/2"), Flat T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors and woodgrains

WIDTHS (ABOVE)			
	A	B	C
VRXFT6-42	72.00"	76.00"	3.40"
VRXFT8-42	96.00"	100.00"	3.375"



# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H 2"x3.5" TOP RAIL w/ TRADITIONAL BALUSTERS



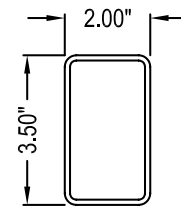
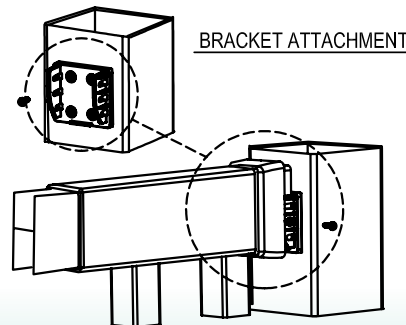
## VRX6-3 & VRX8-3 VFXS6-3 & VFXS8-3

3' High Traditional Baluster (1-1/2" x 1-1/2"), 2" x 3.5" Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

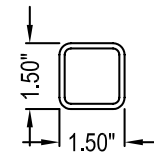
- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in colors and woodgrains

### WIDTHS (ABOVE)

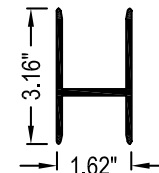
	A	B	C
VRX6-3	72.00"	76.00"	3.40"
VRX8-3	96.00"	100.00"	3.375"



2" X 3.5" AS  
BOTTOM RAILS

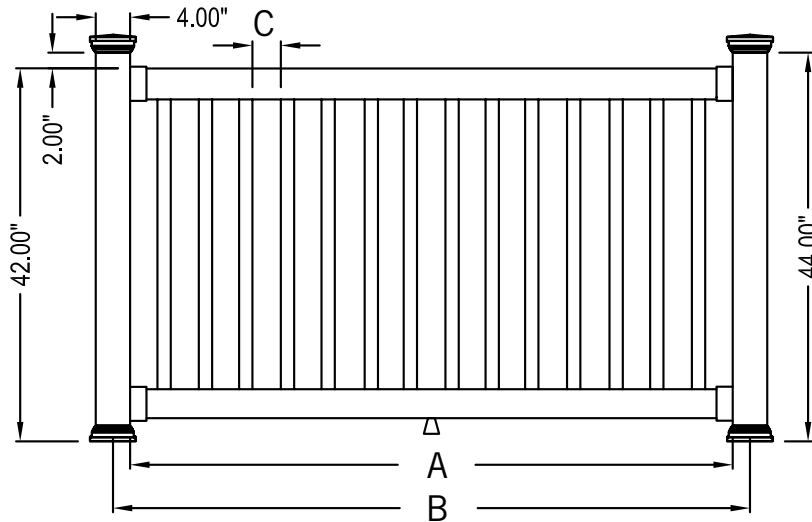


1.5" X 1.5"  
PICKET (14 EA)



METAL "H" CHANNEL  
INSIDE TOP RAIL FOR  
REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H 2" x 3.5" TOP RAIL w/ TRADITIONAL BALUSTERS

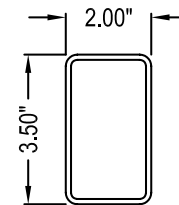
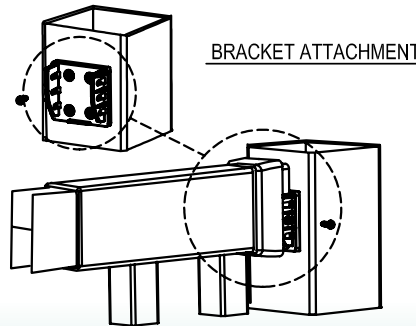


## VRX6-42 & VRX8-42 VRXS6-42 & VRXS8-42

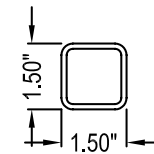
42" High Traditional Baluster (1-1/2" x 1-1/2"), 2" x 3.5" Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors and woodgrains

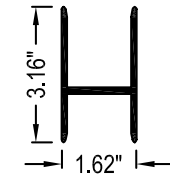
WIDTHS (ABOVE)			
	A	B	C
VRX6-42	72.00"	76.00"	3.40"
VRX8-42	96.00"	100.00"	3.375"



2" X 3.5" AS  
BOTTOM RAILS

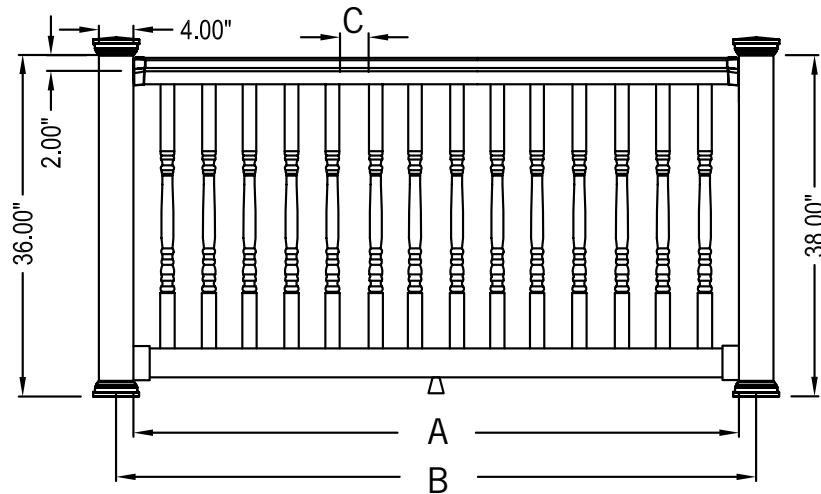


1.5" X 1.5"  
PICKET (14 EA)



METAL "H" CHANNEL  
INSIDE TOP RAIL FOR  
REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H T-RAIL WITH COLONIAL BALUSTERS

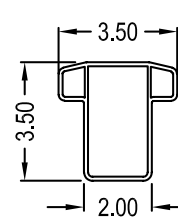
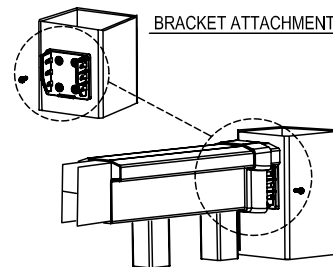


## VRXT6C-3 & VRXT8C-3 VRXST6C-3 & VRXST8C-3

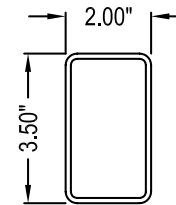
3' High Colonial Baluster, T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- T-Rail and Colonial Balusters not available in woodgrains

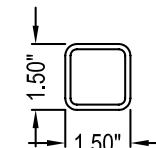
WIDTHS (ABOVE)			
	A	B	C
VRXTC6-3	72.00"	76.00"	3.40"
VRXT8C-3	96.00"	100.00"	3.375"



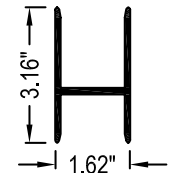
2" X 3.5" T-RAIL AS TOP RAIL



2" X 3.5" AS BOTTOM RAILS

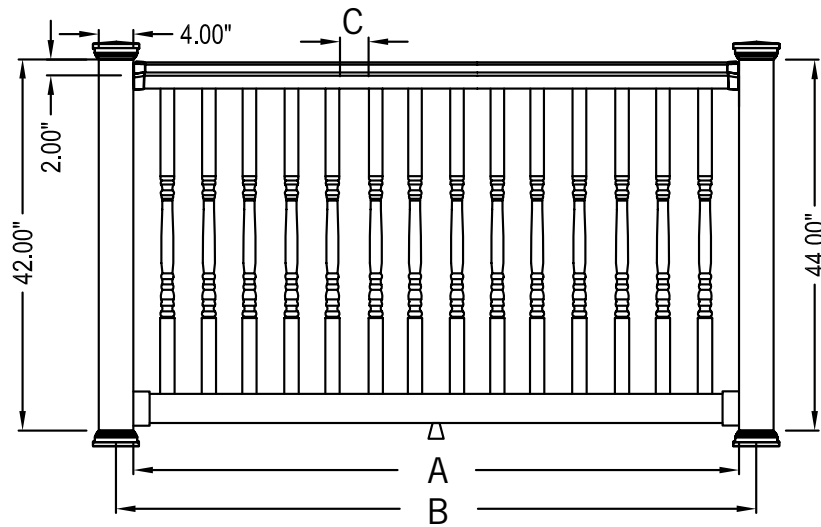


1.5" X 1.5" PICKET (14 EA)



METAL "H" CHANNEL INSIDE TOP RAIL FOR REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H T-RAIL WITH COLONIAL BALUSTERS

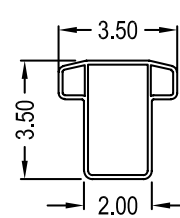
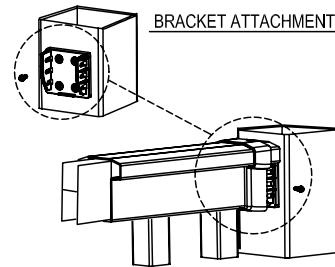


## VRXT6C-42 & VRXT8C-42 VRXST6C-42 & VRXST8C-42

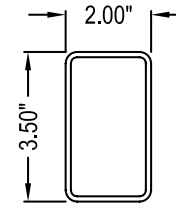
42" High Colonial Baluster, T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- T-Rail and Colonial Balusters not available in woodgrains

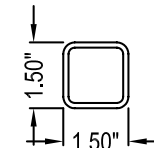
WIDTHS (ABOVE)			
	A	B	C
VRXTC6-42	72.00"	76.00"	3.40"
VRXT8C-42	96.00"	100.00"	3.375"



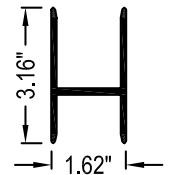
2" X 3.5" T-RAIL AS TOP RAIL



2" X 3.5" AS BOTTOM RAILS

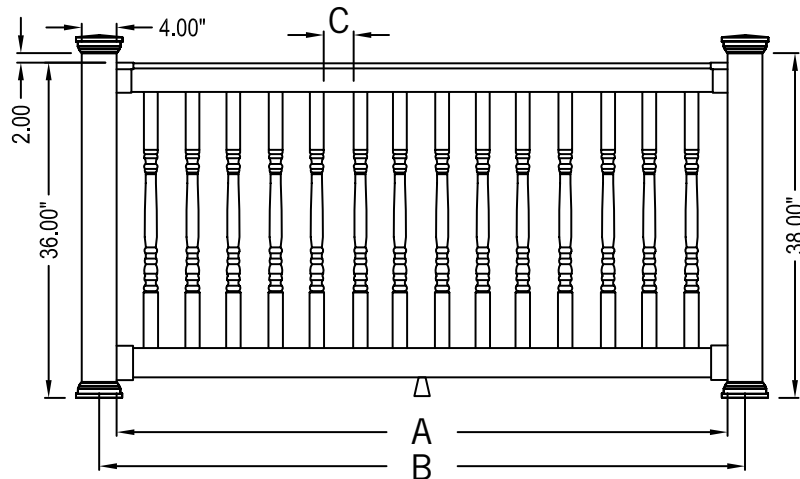


1.5" X 1.5" PICKET (14 EA)



METAL "H" CHANNEL INSIDE TOP RAIL FOR REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H FLAT T-RAIL WITH COLONIAL BALUSTERS

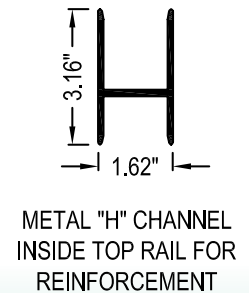
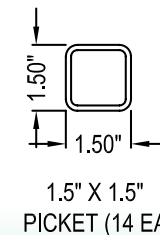
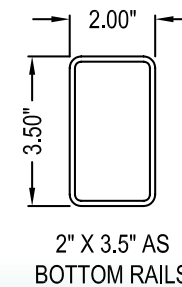
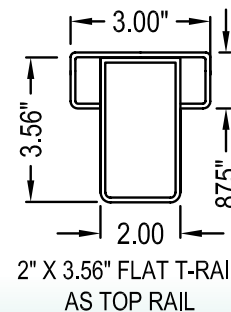
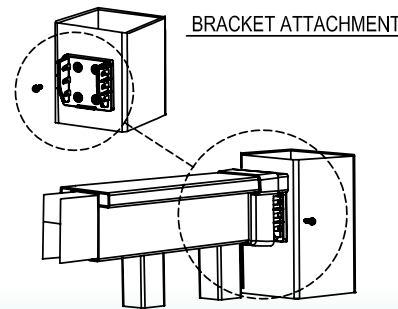


## VRFXST6C-3 & VRFXST8C-3

3' High Colonial Baluster (1-1/2" x 1-1/2"), Flat T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

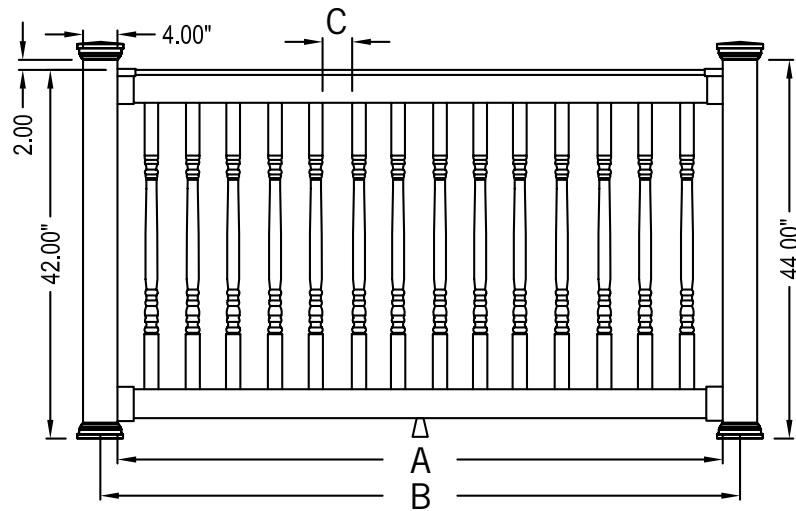
- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- Colonial Balusters not available in woodgrains

WIDTHS (ABOVE)			
	A	B	C
VRXFT6C-3	72.00"	76.00"	3.40"
VRXFT8C-3	96.00"	100.00"	3.375"





# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H FLAT T-RAIL WITH COLONIAL BALUSTERS

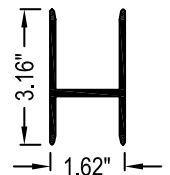
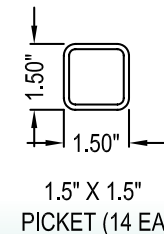
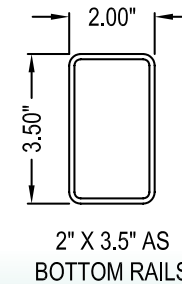
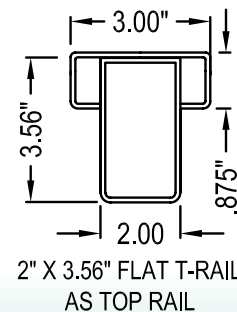
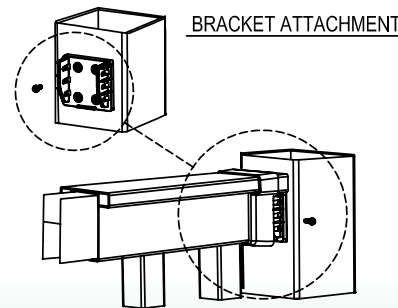


## VRFXST6C-42 & VRFXST8C-42 VRFXST6C-42 & VRFXST8C-42

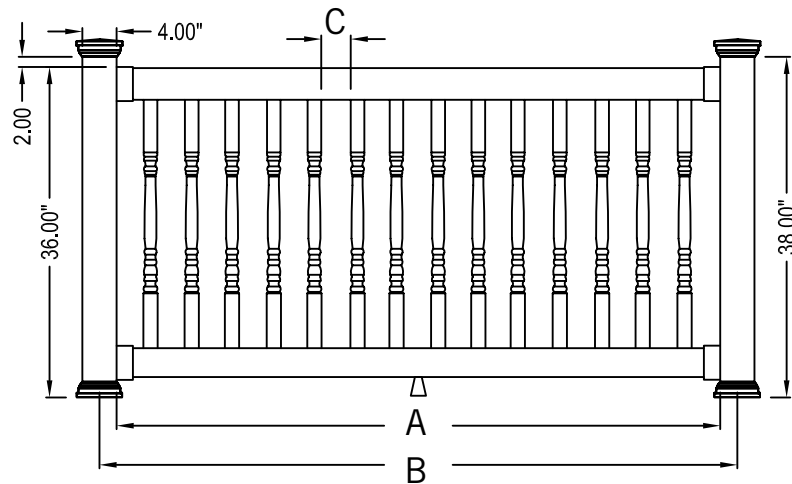
42" High Colonial Baluster (1-1/2" x 1-1/2"), Flat T-Rail Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- Colonial Balusters not available in woodgrains

WIDTHS (ABOVE)			
	A	B	C
VRXFT6C-42	72.00"	76.00"	3.40"
VRXFT8C-42	96.00"	100.00"	3.375"



# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 3'H 2"x3.5" TOP RAIL WITH COLONIAL BALUSTERS

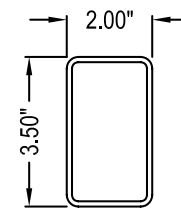
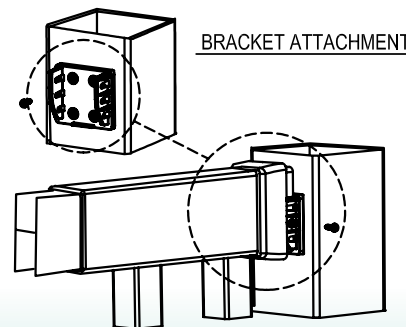


## VRX6C-3 & VRX8C-3 VFXS6C-3 & VFXS8C-3

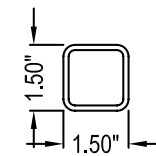
3' High Colonial Baluster (1-1/2" x 1-1/2"), 2" x 3.5" Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- Colonial Balusters not available in woodgrains

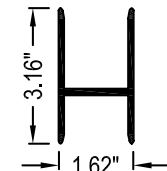
WIDTHS (ABOVE)			
	A	B	C
VRX6C-3	72.00"	76.00"	3.40"
VRX8C-3	96.00"	100.00"	3.375"



2" X 3.5" AS  
BOTTOM RAILS

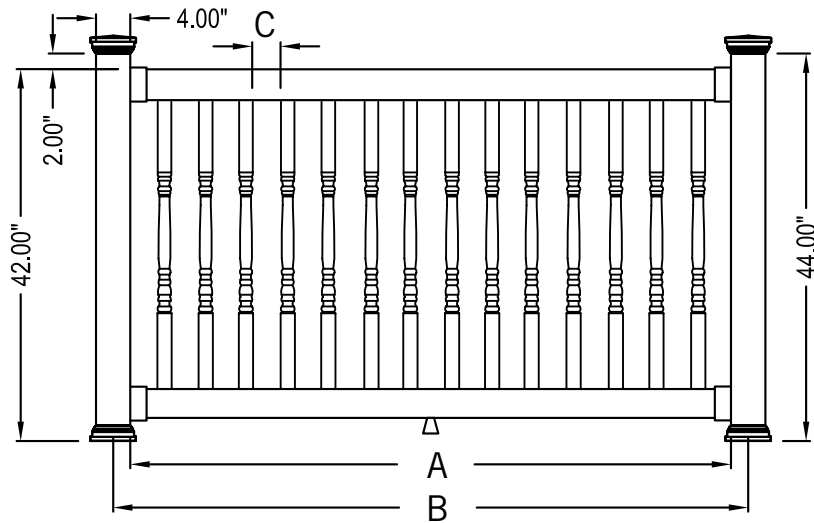


1.5" X 1.5"  
PICKET (14 EA)



METAL "H" CHANNEL  
INSIDE TOP RAIL FOR  
REINFORCEMENT

# MH CUSTOM COLOR/WOODGRAIN VINYL RAILING: 42" H 2" x 3.5" TOP RAIL w/ COLONIAL BALUSTERS



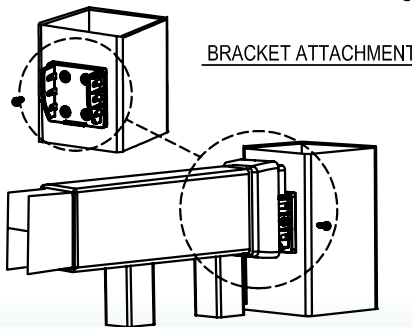
## VRX6/8/10C-42 & VRX6/8/10C-42 VFXS6/8/10C-42 & VFXS6/8/10C-42

42" High Colonial Baluster (1-1/2" x 1-1/2"), 2" x 3.5" Top Rail and 2" x 3.5" Bottom Rail in 6' or 8' Wide Knockdown (Boxed) Standard and Stair Rail Sections

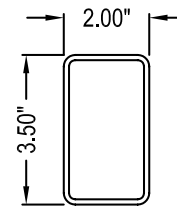
- ICC-ES AC174 CERTIFIED and ASTM-F964 Compliant
- Approved for COMMERCIAL & RESIDENTIAL Applications
- Posts and accessories sold separately
- Made in the U.S.A.
- Easy to assemble and install using standard tools
- Available in all colors
- Colonial Balusters not available in woodgrains

### WIDTHS (ABOVE)

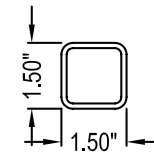
	A	B	C
VRX6C-42	72.00"	76.00"	3.40"
VRX8C-42	96.00"	100.00"	3.375"



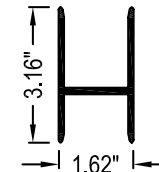
BRACKET ATTACHMENT



2" X 3.5" AS  
BOTTOM RAILS



1.5" X 1.5"  
PICKET (14 EA)



METAL "H" CHANNEL  
INSIDE TOP RAIL FOR  
REINFORCEMENT

# APPENDIX II - CERTIFICATIONS



# VINYL RAILING CERTIFICATION



## Code Compliance Research Report CCRR-0326

Issue Date: 07-27-2020  
Revised Date: 08-25-2023  
Renewal Date: 08-31-2024

DIVISION: 06 00 00 – WOOD, PLASTICS AND COMPOSITES  
Section: 06 63 00 – Plastic Railings

REPORT HOLDER:  
Shoreline Vinyl Systems  
1114 Park Lane  
Denton, Maryland 21629  
410-364-9050  
[www.shorelinevinyl.com](http://www.shorelinevinyl.com)

### ADDITIONAL LISTEES:

TW Perry  
8101 Snouffer School Road  
Gaithersburg, Maryland 20879  
888-897-3779  
[www.twperry.com](http://www.twperry.com)

Wolf Home Products  
20 West Market Street  
York, Pennsylvania 17401  
800-388-9353  
[www.wolfhomeproducts.com](http://www.wolfhomeproducts.com)

REPORT SUBJECT:  
Shoreline PVC Railing Assemblies  
100 Series (Traditional Rail)  
200 Series (Deckboard Rail)  
300 Series (Warrior Rail, Builders Mark Rail)  
600 Series (Breadloaf Rail)

### 1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021, 2018 International Building Code® (IBC)
- 2021, 2018 International Residential Code® (IRC)

NOTE: This report references the most recent Code editions cited. Section numbers in earlier editions may differ.

1.2 The Shoreline PVC Railing Assemblies have been evaluated for the following properties:

- Structural Performance
- Durability
- Surface Burning

1.3 The Shoreline PVC Railing Assemblies have been evaluated for the following uses:

- The Shoreline PVC Railing Assemblies are guards (aka. guardrails) under the definitions of the referenced codes and are intended for use on elevated walking areas in buildings and walkways, including stairs and ramps, as required by the referenced codes.
- Guard assemblies are provided as level guards for level walking areas such as decks, balconies and porches, and sloped guards for open sides of stairways.
- Guard assemblies recognized in this report may be used in One- and Two-Family Dwellings regulated by the IRC and all construction types regulated by the IBC in accordance with IBC Section 705.2. Guards less than 42 inches high are limited to use in One- and Two-Family Dwellings (IRC). See Tables 1 through 4 for additional restrictions based upon Use and Occupancy Classification

### 2.0 STATEMENT OF COMPLIANCE

The Shoreline PVC Railing Assemblies complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

### 3.0 DESCRIPTION

3.1 The Shoreline 100 Series (Traditional Rail) is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 1.



## Code Compliance Research Report CCRR-0326

Page 2 of 15

3.1.1 Top rails are nominally 3-1/2 inches high by 3-1/2 inches wide with 0.08-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum "H" or "A" insert.

3.1.2 Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

3.2 The Shoreline 200 Series (Deckboard Rail) are an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 2.

3.2.1 Top rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "A" insert.

3.2.2 Bottom rails are nominally 2 inches high by 3-1/2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

3.3 The Shoreline 300 Series (Warrior Rail, Builders Mark Rail) is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 3.

3.3.1 Top rails are nominally 3 inches high by 1-3/4 inches wide with 0.104-inch nominal wall thickness, "T" shaped extruded PVC rail profile, reinforced with an aluminum insert.

3.3.2 Bottom rails for the 300 Series and Warrior Rail are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert. The Builders Mark Rail bottom rails are nominally 3-1/2 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

3.4 The Shoreline 600 Series (Breadloaf Rail) is an assemblage of white co-extruded and molded components, with aluminum reinforcements and nylon mounting brackets. See Figure 4.

3.4.1 Top rails are nominally 2-1/4 inches high by 2-13/16 inches wide with 0.08-inch nominal wall thickness, bread

loaf shaped extruded PVC rail profile, reinforced with an aluminum insert.

3.4.2 Bottom rails are nominally 2-1/4 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "H" insert, or alternatively a nominally 3-1/2 inches high by 2 inches wide, extruded PVC rail profile, reinforced with an aluminum "T" insert.

3.5 Infill for Shoreline PVC Railing Assemblies are provided in three styles: square PVC pickets, PVC spindles, and round aluminum pickets. Rails are routed to the shape of the infill profile to receive the infill. See Figure 5.

3.5.1 Square PVC pickets are hollow, extruded PVC, 1-3/8 inch or 1-1/2-inch square, with 0.07-inch nominal wall thickness.

3.5.2 PVC spindles are hollow, thermoformed PVC with 1-1/4 inch or 1-1/2-inch square ends, and 0.06-inch nominal wall thickness.

3.5.3 Round aluminum pickets are hollow, extruded aluminum of 3/4 inch diameter and 0.05-inch nominal wall thickness.

3.6 Top and bottom rails are connected to support posts using nylon brackets, as defined in Table 5. Support posts may be sleeved conventional wood posts, LMT Galvanized post mounts or LMT Blu-Mount post mounts. The LMT post mounts include PVC post guides (mounting blocks) for securing the rail brackets.

3.6.1 LMT Galvanized post mounts consist of a 2-inch square galvanized steel tube with a 0.073-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.300-inch-thick steel base plate. Four 0.40-inch diameter holes are located at each corner of the plate, with the center of the holes 0.40 inches from each edge.

3.6.2 LMT Blu-Mount post mounts consist of a 2-inch square steel tube with 0.152-inch-thick wall, continuously fillet welded to a 3-1/2-inch square, 0.623-inch-thick steel base plate. Four 0.38-inch diameter holes are located at each corner of the plate, with the center of the holes 0.38 inches from each edge.



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report

# VINYL RAILING CERTIFICATION



## 4.0 PERFORMANCE CHARACTERISTICS

4.1 The *Shoreline PVC Railing Assemblies* described in this report have demonstrated the capacity to resist the design loads specified in Chapter 16 of the IBC, as well as Section R301 of the IRC when tested in accordance with ICC-ES AC174.

4.2 Structural performance has been demonstrated for a temperature range from -20°F to 125°F.

4.3 Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, decay, and attack from termites.

4.4 Materials used in the railing assemblies have a flame spread index not exceeding 200 when tested in accordance with ASTM E84.

## 5.0 INSTALLATION

The *Shoreline PVC Railing Assemblies* must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.1 Railing assemblies consist of top and bottom rails with pre-routed holes to receive infill. Aluminum railing reinforcements are inserted in the rails during assembly as specified for the type and length of railing (see Tables 1 through 4). Aluminum insert lengths must be the same length as the PVC railings to assure bracket screws penetrate the aluminum inserts.

5.2 Railings are secured to sleeved 4x4 wood posts, *LMT Galvanized* post mounts, or *LMT Blu-Mount* post mounts with nylon brackets and stainless-steel screws. The wood in the supporting structure shall have a specific gravity of 0.50 or greater (Southern Yellow Pine or better) and a minimum thickness to allow full penetration of the bracket mounting screws. Rail attachment shall be in accordance with Table 5.

5.3 The *LMT Galvanized* and *LMT Blu-Mount* post mounts may be surface mounted to concrete utilizing four anchor bolts. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure

and is not within the scope of this report. See Section 6.0, Conditions of Use for additional requirements.

## 6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 See Section 1.3 for construction type(s) and use classifications.

6.3 Conventional wood railing supports, including 4x4 posts and framing, are not within the scope of this report and are subject to evaluation and approval by the building official. Supports must satisfy the design load requirements specified in Chapter 16 of the IBC. Supports and framing must provide suitable material for anchorage of the rail brackets and post mount, respectively. Where required by the building official, engineering calculations and details shall be provided.

6.4 Concrete anchors and anchoring systems for use with the *LMT Galvanized* and *LMT Blu-Mount* post mounts are not within the scope of this report and are subject to evaluation and approval by the building official. Anchors must satisfy the design load requirements specified in Chapter 16 of the building code and must meet the following minimum requirements:

6.4.1 A minimum of four anchor bolts must be used and located in the four pre-drilled holes in the post base plate.

6.4.2 The anchors must be stainless steel, galvanized steel or other approved material compatible with the steel post mount system.

6.4.3 The anchor bolts must have a minimum diameter of 3/8 inches and utilize flat washers. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report.

6.4.4 When the supporting structure is a wood framed deck, installation must include anchorage to suitable structural framing. Decking is not considered structural framing, and anchorage to decking alone is not an approved installation method.



6.4.5 Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage and supporting structure complies with the building code for the type and condition of the supporting construction.

6.5 Any component or configuration not identified in this report has not been evaluated for performance and/or compliance to the referenced codes. Identification of such components with the CCRR program mark or number is prohibited.

6.6 Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the *Shoreline Vinyl Railing Assemblies*; other methods of attachment are outside the scope of this report.

6.7 Compatibility of fasteners and other installation hardware with the supporting construction including treated wood is not within the scope of this report.

6.8 The *Shoreline PVC Railing Assemblies* are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

## 7.0 SUPPORTING EVIDENCE

7.1 Manufacturer's drawings and installation instructions.

7.2 Reports of testing demonstrating compliance with ICC-ES AC174, Acceptance Criteria for Deck Board Span Ratings and Guardrail Systems (Guards and Handrails), revised December 2014.

7.3 Reports of testing and engineering analysis demonstrating compliance with the performance requirements of ASTM D7032-17, Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails.

7.4 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

7.5 Intertek Listing Report "[Shoreline Vinyl Systems - 100, 200, 300, 600 Series PVC Guardrail Systems](#)", on the [Intertek Directory of Building Products](#).

## 8.0 IDENTIFICATION

The *Shoreline PVC Railing Assemblies* are identified with the manufacturer's name (*Shoreline Vinyl Systems*), address and telephone number, the product name, the statement "See CCRR-0326 for uses and performance levels.", the phrase "For Use in One- and Two-Family Dwellings Only" for the applicable railing assemblies (See Tables 1 through 4), the Intertek Control Number, the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0326).



## 9.0 OTHER CODES

This section is not applicable.

## 10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of

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# VINYL RAILING CERTIFICATION



TABLE 1 – 100 SERIES (TRADITIONAL RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Type	Maximum Railing Dimensions <sup>(1)</sup>	Top Rail Aluminum Reinforcement	Support Post <sup>(2)</sup>	Use Group Classification
Level	96 x 42 inches	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount	IBC – All Use Groups IRC – One and Two-Family Dwellings
Stair	94 x 42 inches	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount	
Level	96 x 36 inches	Aluminum "A" profile with 0.060-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount	IRC – One and Two-Family Dwellings
	120 x 36 inches	Aluminum "H" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount	
Stair	117 x 36 inches	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount	

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports.

<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.



TABLE 2 – 200 SERIES (DECKBOARD RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Type	Maximum Railing Dimensions <sup>(1)</sup>	Top Rail Aluminum Reinforcement	Support Post <sup>(2)</sup>	Use Group Classification
Level	120 x 42 inches	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount	IBC – All Use Groups IRC – One and Two-Family Dwellings
Stair	94 x 42 inches	Aluminum "A" profile with 0.085-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Blu-Mount</i> post mount	
Level	96 x 36 inches	Aluminum "A" profile with 0.060-inch nominal wall thickness	Conventional 4x4 wood post or <i>LMT Galvanized</i> post mount	IRC – One and Two-Family Dwellings

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.



# VINYL RAILING CERTIFICATION



TABLE 3 – 300 SERIES (WARRIOR RAIL, BUILDERS MARK RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Type	Maximum Railing Dimensions <sup>(1)</sup>	Top Rail Aluminum Reinforcement	Support Post <sup>(2)</sup>	Use Group Classification
Level	96 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	IBC – All Use Groups IRC – One and Two-Family Dwellings
Stair	89-1/2 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness		
Level	96 x 42 inches	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount	IRC – One and Two-Family Dwellings
	120 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness		
Stair	95-1/2 x 42 inches	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount	
	119 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness		

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are one of two options:

- 300 Series and Warrior Rail: 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- Builders Mark Rail: 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.



TABLE 4 – 600 SERIES (BREADLOAF RAIL) PVC RAILING ASSEMBLIES FOR USE GROUP CLASSIFICATIONS

Type	Maximum Railing Dimensions <sup>(1)</sup>	Top Rail Aluminum Reinforcement	Support Post <sup>(2)</sup>	Use Group Classification
Level	96 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	IBC – All Use Groups IRC – One and Two-Family Dwellings
Stair	94 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness		
Level	96 x 42 inches	Aluminum profile with 0.070-inch nominal wall thickness	Conventional 4x4 wood post or LMT Galvanized post mount	IRC – One and Two-Family Dwellings
	120 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness		
Stair	118-1/2 x 42 inches	Aluminum profile with 0.100-inch nominal wall thickness	Conventional 4x4 wood post or LMT Blu-Mount post mount	

<sup>(1)</sup> Level rail lengths are maximum clear length between supports. Railing height is the minimum installed height from walking surface to top of top rail. Stair rail lengths are the sloping clear distance between supports. Stair heights indicate minimum allowed height as measured vertically from the leading edge of the stair nose.

<sup>(2)</sup> Anchorage of wood posts and post mounts to the supporting structure is not included in the scope of this report. See Section 6.4 for conditions of use.

<sup>(3)</sup> Bottom rails are one of two options:

- 2-inch x 2.25-inch profile reinforced with aluminum "H" profile with 0.055-inch nominal wall thickness
- 2-inch x 3.5-inch profile reinforced with an aluminum "T" profile with 0.055-inch nominal wall thickness.





# VINYL RAILING CERTIFICATION



Code Compliance Research Report CCRR-0326

Page 9 of 15

TABLE 5 – FASTENING SCHEDULE

CONNECTION		FASTENER		QUANTITY
100 Series	Top Rail Bracket	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
		to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
	Bottom Rail Bracket	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
		to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
200 Series	Top / Bottom Rail Bracket	to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
		to Rail	#10-16 by 1 inch (0.141-inch minor diameter), pan-head, zinc-coated, self-drilling screws	4
300 Series 600 Series	Top Rail Bracket	to Wood Post	#10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, zinc-coated, self-drilling screws	3
		to LMT Post	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	3
	300 Series, 600 Series, and Warrior Rail: 2" x 2-1/4" Bottom Rail Bracket	to Wood Post	#10-10 by 1-1/2 inch (0.118-inch minor diameter), pan-head, zinc-coated, self-drilling screws	3
		to LMT Post	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	3
	600 Series and Builders Mark Rail: 2" x 3-1/2" Bottom Rail Bracket	to Rail	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	2
		to Post	#10-10 by 1-1/2 inch (0.121-inch minor diameter), pan-head, zinc-coated, self-drilling screws	6
100 Series 200 Series 300 Series 600 Series	Baluster to Top/Bottom Rail	Slip fit into routing - No mechanical connection		-
	Support Block to Bottom Rail	Slip fit into routing - No mechanical connection		-
	Post Mount to Top Stabilizer (internal component)	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screw	1	
	Top Stabilizer (internal component) to Top Stabilizer	1/4-20 by 1-1/4-inch hex head stainless steel bolt with nut, plate washer and lock washer	1	
	Bottom PVC Post Stabilizer to Post Mount	#10-16 by 1 inch (0.140-inch minor diameter), pan-head, zinc-coated, self-starting screws	1	



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report



Code Compliance Research Report CCRR-0326

Page 10 of 15

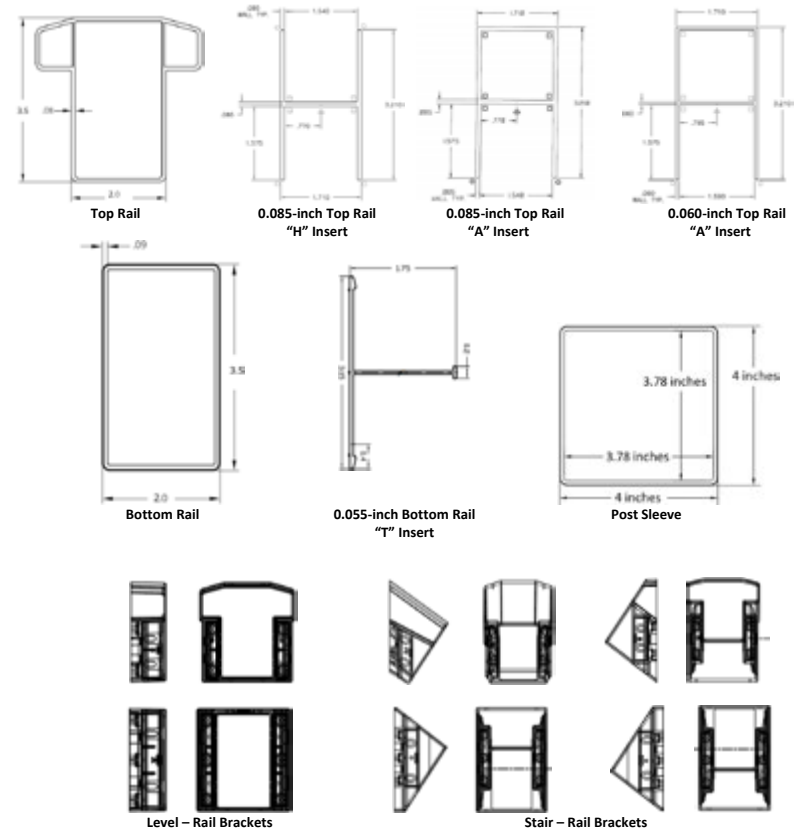


FIGURE 1 – 100 SERIES PVC RAILING PROFILES AND BRACKETS



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report

# VINYL RAILING CERTIFICATION



Code Compliance Research Report CCRR-0326

Page 11 of 15

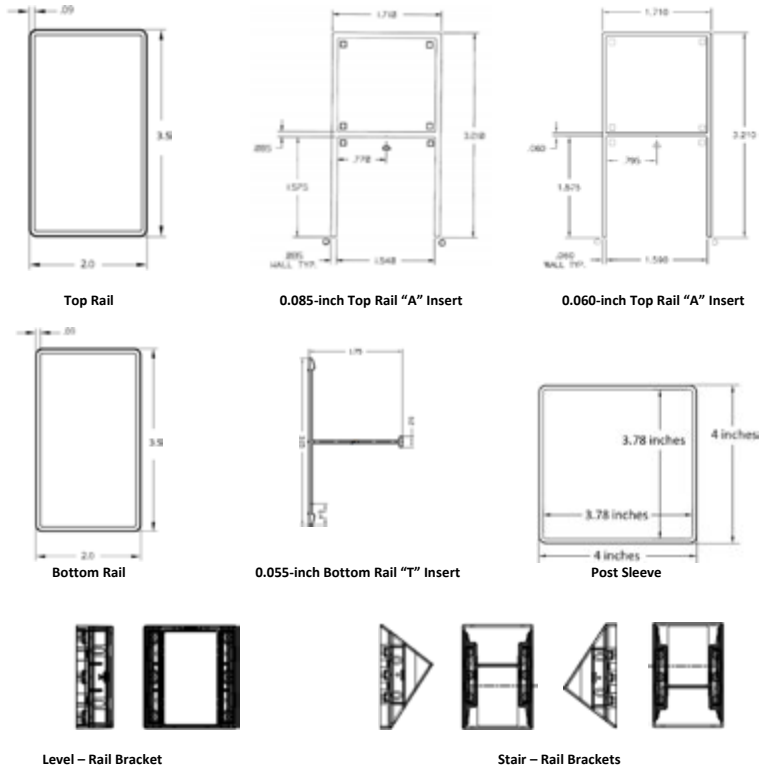


FIGURE 2 – 200 SERIES PVC RAILING PROFILES AND BRACKETS



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report



Code Compliance Research Report CCRR-0326

Page 12 of 15

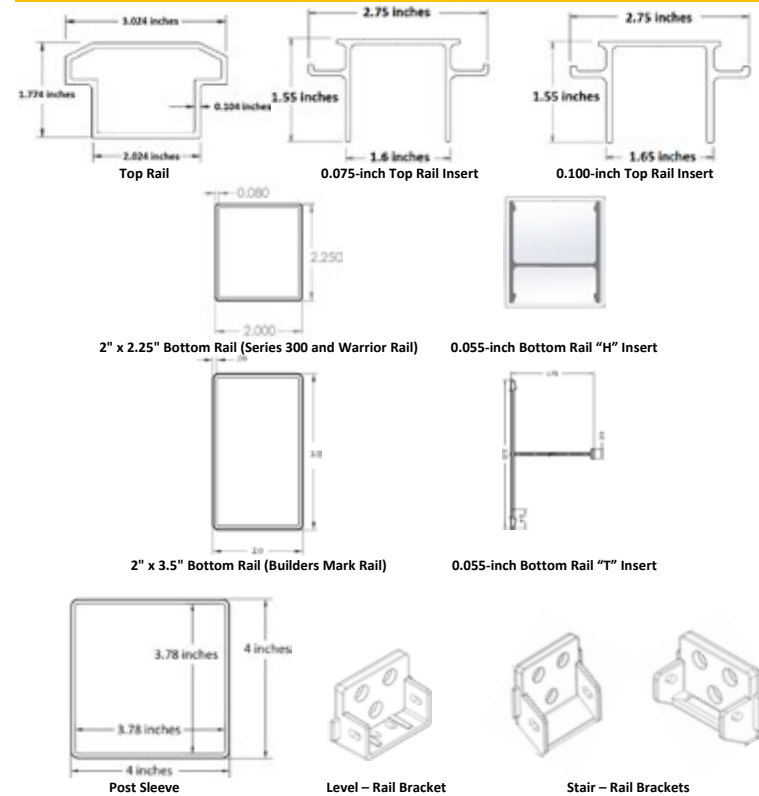


FIGURE 3 – 300 SERIES PVC RAILING PROFILES AND BRACKETS



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PCA-101

Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report

# VINYL RAILING CERTIFICATION



Code Compliance Research Report CCRR-0326

Page 13 of 15

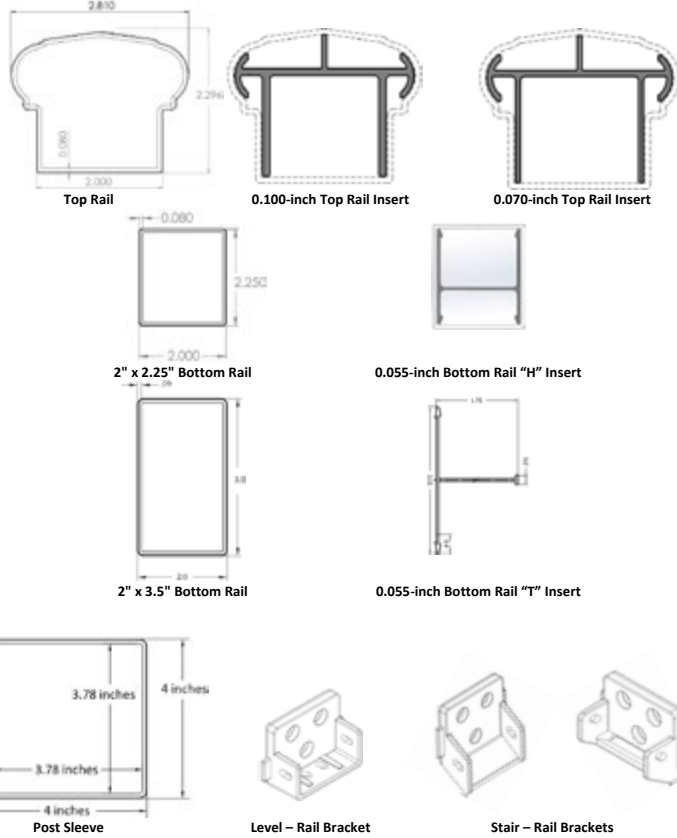


FIGURE 4 – 600 SERIES PVC RAILING PROFILES AND BRACKETS



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Version: 28 December 2021

SFT-BC-CCRR-OP-19a Code Compliance Research Report



Code Compliance Research Report CCRR-0326

Page 14 of 15

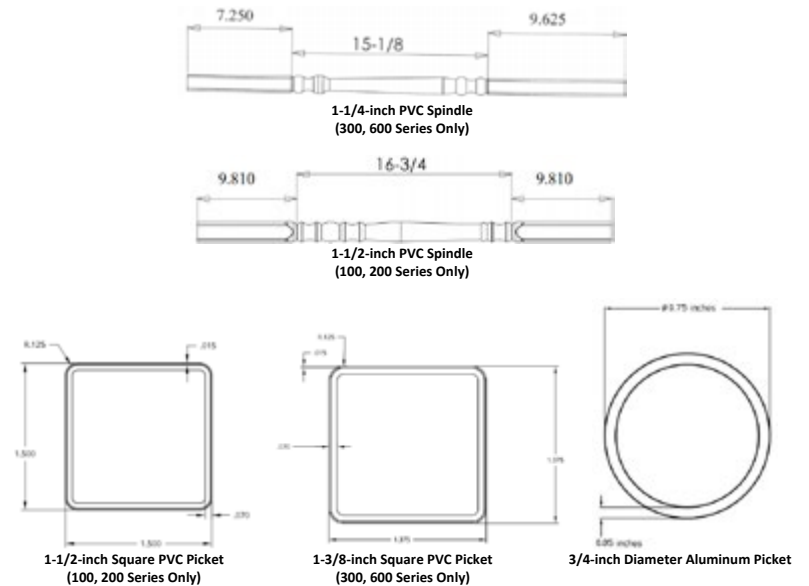


FIGURE 5 – INFILL



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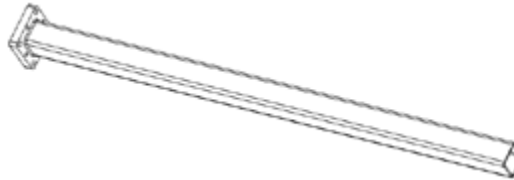
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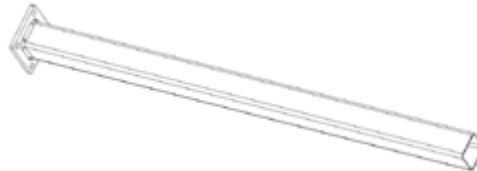


Code Compliance Research Report CCRR-0326

Page 15 of 15



LMT Blu Mount



LMT Galvanized



Orientation for 36"



Orientation for 42"

Top Rail Post Guide



Bottom Rail Post Guide

FIGURE 6 – POST MOUNTS



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PCA-101

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# ALUMINUM RAILING CERTIFICATION



## Code Compliance Research Report CCRR-0277

Issue Date: 05-21-2018  
Revision Date: 05-29-2020  
Renewal Date: 05-31-2021

DIVISION: 05 00 00 - METALS  
Section: 05 52 00 - Metal Railings

REPORT HOLDER:  
Eastern Wholesale Fence LLC  
274 Middle Island Road  
Medford, NY 11783  
(631) 698-0975  
[www.easternornamentalfence.com](http://www.easternornamentalfence.com)

REPORT SUBJECT:  
Eastern Ornamental Railing System  
Aluminum Guardrail System

### 1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2015 and 2012 International Building Code® (IBC)
- 2015 and 2012 International Residential Code® (IRC)

1.2 Eastern Ornamental Railing System has been evaluated for the following property (see Table 1):

- Structural Performance

1.3 The Eastern Ornamental Railing System has been evaluated for the following uses (see Table 1):

- Under the definitions of the referenced codes the Eastern Ornamental Railing System is intended for use at or near the open sides of elevated walking areas of buildings and walkways as required by the codes.
- Guardrail systems recognized in this report may be used in One and Two-Family Dwellings regulated by the IRC and all construction types regulated by the IBC in accordance with IBC sections 1607.3 and 1015.

### 2.0 STATEMENT OF COMPLIANCE

Eastern Ornamental Railing System complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2

and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0. See Table 2 for allowable use based upon use and occupancy classification.

### 3.0 DESCRIPTION

3.1 The Eastern Ornamental Railing System is an assemblage of extruded aluminum top and bottom rails, balusters, and structural aluminum posts, with die cast rail to post brackets, post caps and stainless steel fasteners.

3.2 Level guards are provided with rail lengths of 96 inches measured between the inside of support posts and installed height of up to 42 inches See Table 2.

3.3 Stair guards are provided with rail lengths up to 96 inches measured along the sloping length between the inside of supports and the installed height of up to 42 inches at the leading edge of the stair tread or landing. See Table 2.

3.4 The top rail is a T-Shape profile extruded from 6061-T6 alloy aluminum with an overall profile dimensions of 2.10 inches x 2.25 inches. A U-shaped vinyl insert installed into underside of rail secures the balusters to the rail.

3.5 The bottom rail is a U-Shape profile extruded from 6061-T6 alloy aluminum with an overall profile dimensions of 1.5 inches x 1.25 inches. A U-shaped vinyl insert installed into top side of rail secures the balusters to the rail.

3.6 Baluster pickets are 0.75 inch square profile extruded from 6061-T6 aluminum alloy.

3.7 Support posts are available in 2.5 inch or 3.0 inch square profiles and are extruded from 6061-T6 aluminum. The post is bolted to a steel base plate utilized to secure the rail assembly to the deck.



Code Compliance Research Report CCRR-0277

Page 2 of 7

### 4.0 PERFORMANCE CHARACTERISTICS

4.1 The guardrail system described in this report has demonstrated the capacity to resist the design loadings specified in Chapter 16 of the IBC and section R301 of the IRC when tested in accordance with ICC-ES AC273.

### 5.0 INSTALLATION

#### 5.1 General:

Eastern Ornamental Railing System must be installed in accordance with the manufacturer's published installation instructions, the applicable code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

#### 5.2 Application:

Guardrails may be installed in configuration identified in table 2. See table 3 for the fastening schedule of all the system components.

### 6.0 CONDITIONS OF USE

6.1 The Eastern Ornamental Railing System described in this report complies with, or is a suitable alternative to, what is described in the codes listed in Section 1.0 and 2.0 of this report, subject to the following conditions.

6.2 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.3 Only those types of fasteners and fastening methods described in this report have been evaluated for use with the Eastern Ornamental Railing System. All other fastening methods are outside the scope of this report.

6.4 The steel post mounts are anchored to a concrete or steel surface with for 3/8 inch approved anchor bolts. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report.

6.5 The Eastern Ornamental Railing System is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

### 7.0 SUPPORTING EVIDENCE

7.1 Data in accordance with the ICC-ES Acceptance Criteria for Handrail and Guards, AC273, February 2008, editorially revised March 2016.

7.2 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

### 8.0 IDENTIFICATION

The Eastern Ornamental Railing System is identified with the manufacturer's name (Eastern Wholesale Fence LLC), address and telephone number, the product name (Eastern Ornamental Railing), the Intertek Mark, (example shown below) and the Code Compliance Research Report number (CCRR-0277).



### 9.0 OTHER CODES

This section is not applicable.

### 10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.



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Version: 21 December 2017

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Version: 21 December 2017

SF1-CCRR-CP-405

# ALUMINUM RAILING CERTIFICATION



TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2015 IBC SECTION <sup>1</sup>	2015 IRC SECTION <sup>1</sup>
Structural Performance	1607.3	R301.5

<sup>1</sup> Section numbers may be different for earlier versions of the International Codes

TABLE 2 – ORNAMENTAL RAILING SYSTEM IBC/IRC RECOGNITION

Railing System Dimensions	Guardrail Type	Baluster	Post	Code Recognition
72in x 42in	Level	3/4 In Square Picket	3in Square	IBC – All Use Group
72in x 42in	Stair	3/4 In Square Picket	3in or 2.5in Square	IRC One- and Two-Family Dwellings
96in x 42in	Level	3/4 In Square Picket	3in or 2.5in Square	IRC One- and Two-Family Dwellings
66in x 42in	Stair	3/4 In Square Picket	3in or 2.5in Square	IRC One- and Two-Family Dwellings

TABLE 3 – FASTENER SCHEDULE LEVEL RAIL

CONNECTION	FASTENER
Top Rail to Bracket Post	Three #10 x 1in, self-drill, 304 stainless steel screws
Bottom Rail Bracket to Post	Two #10 x 1in, self-drill, 304 stainless steel screws
Top Rail Bracket to Rail	Two #8 x 3/4in, self-drill, 304 stainless steel screws
Bottom Rail Bracket to Rail	No mechanical fastener

TABLE 4 – FASTENER SCHEDULE STAIR RAIL

CONNECTION	FASTENER
Top Rail to Bracket Post	Four #10 x 1in, self-drill, 304 stainless steel screws
Bottom Rail Bracket to Post	Four #10 x 1in, self-drill, 304 stainless steel screws
Top Rail Bracket to Rail	Two #8 x 3/4in, self-drill, 304 stainless steel screws
Bottom Rail Bracket to Rail	Two #8 x 3/4in, self-drill, 304 stainless steel screws

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FIGURE 1 - TOP RAIL



FIGURE 2 - BOTTOM RAIL

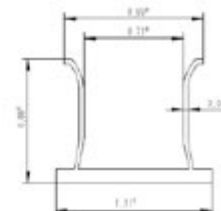


FIGURE 3 - VINYL RAIL INSERT

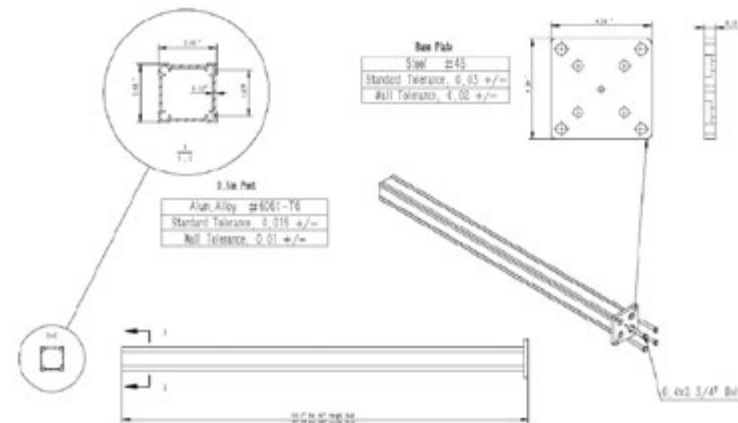


FIGURE 4 - 2.5 INCH POST



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# ALUMINUM RAILING CERTIFICATION



Code Compliance Research Report CCRR-0277

Page 5 of 7

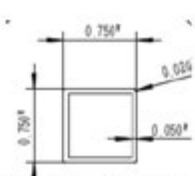


FIGURE 5 - 2.5 INCH PICKET

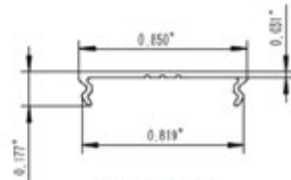


FIGURE 6 - SPACER

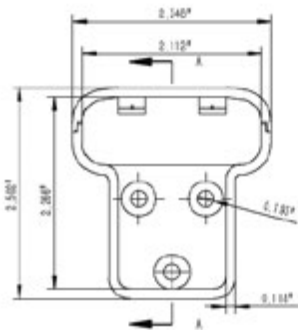
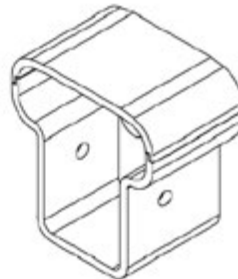


FIGURE 7 - TOP RAIL BRACKET



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Version: 21 December 2017

SF1-CCRR-CP-406



Code Compliance Research Report CCRR-0277

Page 6 of 7

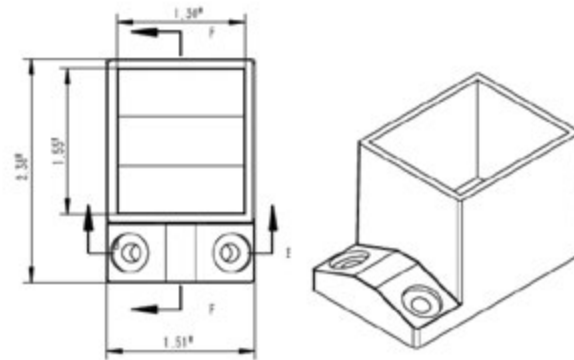


FIGURE 8 - BOTTOM RAIL BRACKET

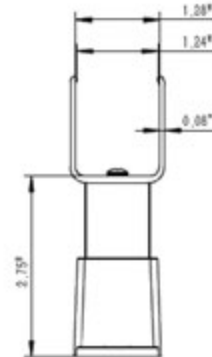


FIGURE 9 - BOTTOM RAIL SUPPORT



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Version: 21 December 2017

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# ALUMINUM RAILING CERTIFICATION



Code Compliance Research Report CCRR-0277

Page 7 of 7

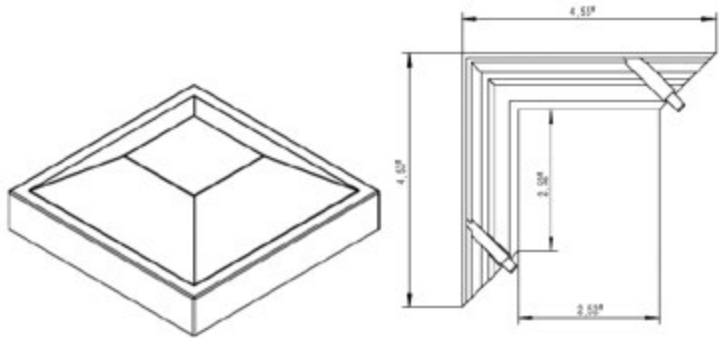


FIGURE 30 - POST CAP AND TRIM



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# COLOR & WOODGRAIN VINYL RAILING CERTIFICATION



## ICC-ES Evaluation Report



ESR-2995

Reissued January 2023

This report is subject to renewal January 2024.

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**DIVISION: 06 00 00—WOOD, PLASTICS AND COMPOSITES**

**Section: 06 50 00—Structural Plastics**  
**Section: 06 53 00—Plastic Railings**

**REPORT HOLDER:**

EASTERN WHOLESALE FENCE LLC

**EVALUATION SUBJECT:**

ILLUSIONS® VINYL RAILING SYSTEM™

### 1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2012, 2000 and 2005 International Building Code® (IBC)
  - 2012, 2009 and 2005 International Residential Code® (IRC)
  - 2013 Abu Dhabi International Building Code (ADIBC)†
- †The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

**Properties evaluated:**

- Structural
- Durability
- Surface-burning characteristics

1.2 Evaluation to the following green code(s) and/or standards:

- 2019 California Green Building Standards Code (CALGreen), Title 24, Part 11
- 2015, 2012 and 2008 ICC 700 National Green Building Standard™ (ICC 700-2015, ICC 700-2012 and ICC 700-2008)

**Properties evaluated:**

- See Section 3.1

### 2.0 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.

### 3.0 DESCRIPTION

#### 3.1 General:

The Illusions® Vinyl Railing System™ is composed of polyvinyl chloride (PVC) which is extruded, in accordance with the approved quality control manual, into prefinished

railing system components. The system components are available in white, beige or grey colors.

The attributes of the railing system have been verified as conforming to the provisions of (i) 2010 CALGreen Section A5-606.1.2 for reduced maintenance; (ii) ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6 for termite-resistant materials and Sections 601.7, 11.601.7, and 12.1(A)601.7 for site-applied finishing materials; and (iii) ICC 700-2008 Section 602.8 for termite-resistant materials and Section 601.7 for site-applied finishing materials. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These codes or standards often provide supplemental information as guidance. See Section 5.7 for limitations on termite-resistance use.

#### 3.2 Guards:

The Illusions® Vinyl Railing System™ is composed of top rails with aluminum "I" shaped inserts, bottom rails, and either square- or colonial-shaped balusters. The inserts are 1.62 inches (41.1 mm) wide by 3.16 inches (80.3 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 ASTM E221, 6005 alloy and 15 aluminum. 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 (1067 mm) as shown in Table 1. The railings provide for 3.375-inch-wide (85.7 mm) openings between the 1½-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

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Page 1 of 4

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Page 2 of 4

designed for mounting deck railings and stair railings to fixed wall surfaces or to braced columns.

#### 3.3 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).

#### 3.4 Surface-burning Characteristics:

When tested in accordance with ASTM E84, the Illusions® Vinyl Railing System™ has a flame-spread index of no greater than 200.

### 4.0 DESIGN AND INSTALLATION

#### 4.1 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.

#### 4.2 Design:

The Illusions® Vinyl Railing System™ is satisfactory to resist the loads specified in 2009 and 2005 IBC Section 1607.7.1, 2012 IBC Section 1607.8.1 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.

#### 4.3 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 "I" shaped inserts, which are provided with the rails. The rails must be installed using the mounting plates supplied by Eastern Wholesale Fence LLC, mounted on the supports at the appropriate heights for the bottom and top rails, stainless steel screws, as shown in Table 2, supplied by the manufacturer. The rails must be secured to the mounting brackets as required in Table 2, making sure the screws engage and penetrate through the aluminum "I" 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 1½ 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.

### 5.0 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:

5.1 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.

5.2 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® published installation instructions differ from this report, this report governs.

5.3 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 ICC-ES.

### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Deck Board Span Railings and Guardrail Systems (Guards and Handrails) (AC174), dated January 2012.

### 7.0 IDENTIFICATION

7.1 The Illusions® Vinyl Railing System™ components described in this report are identified on each individual piece or on the packaging. The identification includes a production code, the product type, the allowable span, the manufacturer's name (Eastern Wholesale Fence LLC) and/or trademark (see Figure 3), and the ICC-ES evaluation report number (ESR-2995).

7.2 The report holder's contact information is the following:

**EASTERN WHOLESALE FENCE LLC**  
274 MIDDLE ISLAND ROAD  
MEDFORD, NEW YORK 11763  
(631) 998-0975  
[www.illusionsvinylrailing.com](http://www.illusionsvinylrailing.com)

# COLOR & WOODGRAIN VINYL RAILING CERTIFICATION



TABLE 1—MAXIMUM GUARDRAIL SYSTEM SPANS<sup>1</sup>

GUARDRAIL SYSTEM	GUARDRAIL TYPE	APPLICABLE BUILDING CODE <sup>2</sup>		MAXIMUM SPAN <sup>4</sup> (inches)
		IBC	IRC	
Colonial balusters with maximum 42-inch-high Rectangular or T-Rail top rail	Level	Yes	Yes	96
	Level	No	Yes	120
	Stair	Yes	Yes	87.5
Traditional balusters with maximum 42-inch-high Rectangular top rail	Level	Yes	Yes	96
	Level	No	Yes	120
	Stair	Yes	Yes	87.5
Traditional balusters with maximum 42-inch-high T-Rail top rail	Level	Yes	Yes	120
	Stair	Yes	Yes	87.5

For SI: 1 inch = 25.4 mm; 1 ft = 305 mm.

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

<sup>2</sup>Indicates compliance with the respective building codes.

<sup>3</sup>Maximum allowable span has been adjusted for durability. No further increases are permitted.

<sup>4</sup>Maximum span is measured from edge-of-support to edge-of-support.

TABLE 2—REQUIRED FASTENERS

GUARDRAIL SYSTEM	CONNECTION	REQUIRED FASTENERS
Colonial balusters with maximum 42-inch-high Rectangular or T-Rail top rail	Top Rail Bracket to Rail	Two #10 x 1/2-inch self-tapping, pan head, stainless steel screws
Traditional balusters with maximum 42-inch-high Rectangular top rail	Top Rail Bracket to Rail	Two #10 x 1/2-inch self-tapping, pan head, stainless steel screws
Traditional balusters with maximum 42-inch-high T-rail top rail up to 95-inch span	Top Rail Bracket to Rail	Two #10 x 1/2-inch self-tapping, pan head, stainless steel screws
Traditional balusters with maximum 42-inch-high T-Rail top rail up to 120-inch span when connected to wood support	Top Rail Bracket to Rail	Six #10 x 1/2-inch self-tapping, pan head, stainless steel screws
Traditional balusters with maximum 42-inch-high T-Rail top rail up to 120-inch span when connected to Blu-Mount support <sup>3</sup>	Top Rail Bracket to Rail	Four #10 x 1/2-inch self-tapping, pan head, stainless steel screws
All systems	Bottom Rail Bracket to Rail	Two #10 x 1/2-inch self-tapping, pan head, stainless steel screws
All systems	Top and Bottom Rail Mounting Plates to Wood Support <sup>1</sup>	Four #10 x 1 1/2-inch self-tapping, pan head, stainless steel screws
All systems	Top and Bottom Rail Mounting Plates to Blu-Mount Support <sup>2</sup>	Four #10 x 1-inch self-tapping, pan head, stainless steel screws

For SI: 1 inch = 25.4 mm; 1 ft = 305 mm.

<sup>1</sup>The attachment method described for brackets to support is for fasteners embedded into a wood substrate having a specific gravity of 0.50 (minimum), to a minimum depth of 1 1/4 inches (31.9 mm).

<sup>2</sup>The attachment method described for brackets to Blu-Mount post mount by LMI-Mercer Group. This report covers the attachment of the rail mounting plate to support only. The design, installation and use of the Blu-Mount post is outside of the scope of this report.

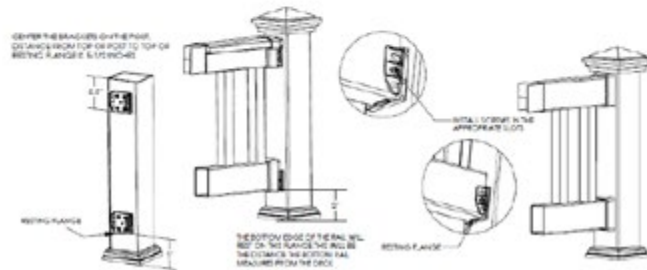


FIGURE 1—TYPICAL GUARDRAIL SYSTEM INSTALLATION

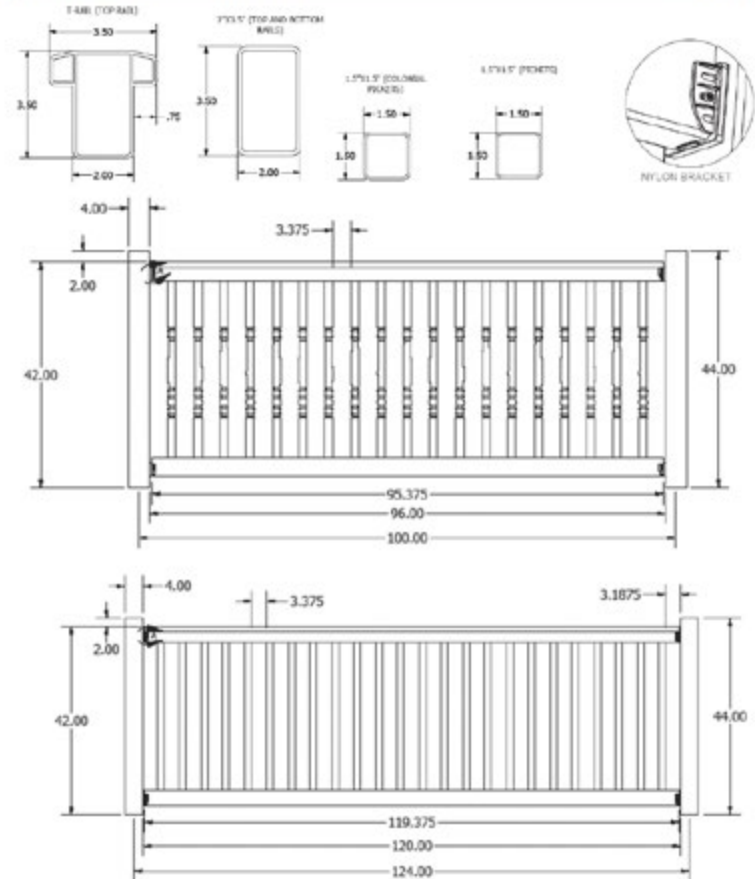


FIGURE 2—TYPICAL GUARDRAIL SYSTEM COMPONENT PROFILES



FIGURE 3—PRODUCT TRADEMARK