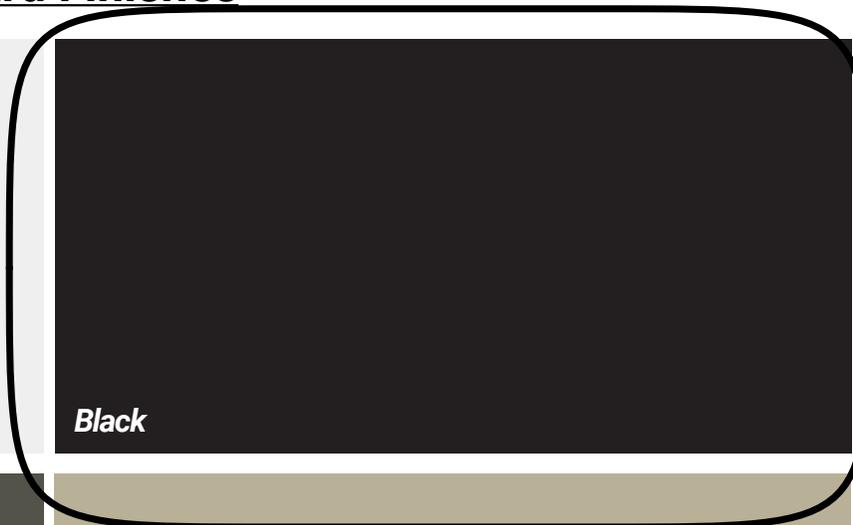
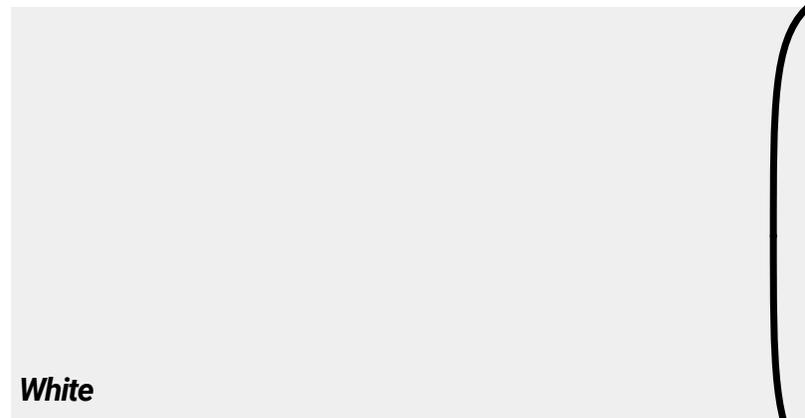


## Standard Finishes



## Additional Finishes



**Additional finishes may be subject to increased costs on specific product lines. Duranodic and colored anodized versions of all finishes are available for an added fee. Custom colors available for an added fee. Satin Anodized square post products may require extra structural posts when compared to standard finishes.**

\* Anodizing is an electrochemical process that converts the metal surface of aluminum into a durable, corrosion-resistant, anodic oxide finish. Please note that deviations are common among similar alloys with even greater deviations occurring among different alloys.

**DISCLAIMER:** While every effort has been made to ensure color accuracy in this printed piece, there may be subtle differences when compared to the actual product. If an exact match is required, please request a product sample.



**Superior**

# Aluminum Railing

SERIES  
**9000**

Meets OSHA, ADA and ICC Safety Criteria

***Strong, Durable and Maintenance-Free Beauty!***

***[www.superioraluminum.com](http://www.superioraluminum.com)***



# Heavy-Duty Aluminum Railing

*Strong, Durable, and Maintenance-Free Beauty!*

Superior Series 9000 Heavy-Duty Aluminum Railing offers the finest design features available on the market today. The highest quality aluminum alloy extrusions are used to provide maximum strength and support where it is needed most – in your installation.

Superior Heavy-Duty Railing utilizes all the advantages of aluminum: strong, durable, and rust- and corrosion-free. These characteristics make it a practical, sound investment for the budget-minded buyer.

The smart, contemporary design is an added plus. Our unique, no-weld design utilizes simple, cast aluminum fittings or machined openings for a no-hassle, easy installation.

Superior Heavy-Duty Railing can be found wherever clean design and safety are a must. It is an excellent choice for condominiums, apartments, hotels, churches, schools, commercial buildings and homes.

To make our railing even more versatile, decorative columns, inserts, and scrolls are available.

Superior Railing is available in any height. Standard heights include 42" for commercial railing, 36" for residential railing, and 72" for pool railing. Superior railing comes in standard 6' lengths, as well as custom lengths, in 2-line or 3-line styles. Ordering standard 6' lengths reduces lead times and cost.

### Concealed Picket Screws



Series 9000 Heavy-Duty Railing features a screw cover to conceal picket screws on top and

bottom rail assemblies for a cleaner, more streamlined look.



9000 Railing (Style B), 905 Top Rail

### Finishes

Smart, decorative finishes add a distinctive touch. Whether PPG Duracron paint, anodized, or duranodic, these finishes are guaranteed to endure for years of continued service and maintenance-free beauty.



## Series 9000

### 9000 and 9900 Railing



Rails are inserted into machined post openings.

Series 9000 Heavy-Duty Railing features machined post openings on level and ramp railing, eliminating the need for brackets. The result is a clean, rigid design with added strength. If railing is

angled horizontally, the angle must be specified so the proper openings can be machined into the post. **Swivel brackets are required for step rail applications.** The top rail has a 2" wide gripping surface which meets all safety criteria. The machined post openings and assembled sections (standard 6' length or custom length) facilitate quick turn-around and overall savings for the customer.

### Top Rail Selections



### 9000 RAILING

Features 2 1/2" square posts, 3/4" square pickets, and 905 top rail.



### 9900 RAILING

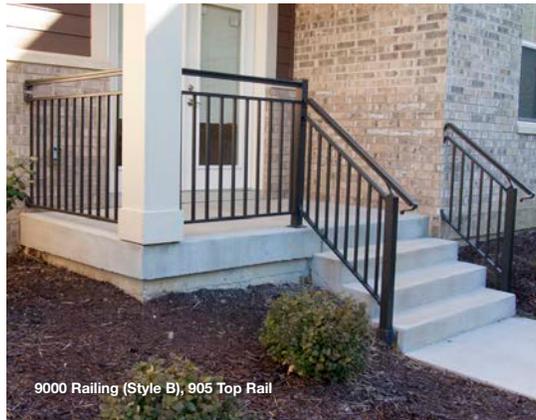
Features 2 1/2" square posts, 1 1/2" x 3/4" pickets, and 905 top rail.

**Note:** All top rail (901, 902, 905), posts (2", 2 1/2", 4"), and pickets (3/4" square, 3/4" x 1 1/2") are interchangeable.

*Superior 9000 and 9900 Railing meets OSHA, ICC, and ADA criteria.*



9000 Railing (Style B), 905 Top Rail



9000 Railing (Style B), 905 Top Rail



9900 Railing (Style A), 902 Top Rail and Square Fluted Columns

# Railing Style Systems

Superior offers a variety of styles to fit any application.

## Style A Standard Top Rail



9000 Railing (Style A), 905 Top Rail

## Style B Open Double Top Rail



9000 Railing (Style B), 905 Top Rail

## Style C Double Top Rail with Through Pickets

Through pickets can be spaced according to your preference. For example; every picket, every 2nd, 3rd, 4th picket, etc.



9000 Railing (Style C), 901 Top Rail

## Style D Hand Rail (with mtg. brackets)

905 top rail or Superior Series 500 Pipe Rail can be used for hand rail applications.



905 Top Rail (Style D)

## Customize your look!

Top rail, bottom rail, pickets, and posts are interchangeable for a completely custom look.

### Interchangeable Top & Bottom Rail

All 901, 902, and 905 top rails are interchangeable. Standard 903 bottom rail can be substituted with 902 top rail. *See examples of 9000 Rail below.*



**Option 1**  
905 Top Rail  
903 Bottom Rail

**Option 2**  
901 Top Rail  
903 Bottom Rail

**Option 3**  
902 Top Rail  
903 Bottom Rail

**Option 4**  
902 Top Rail  
902 Bottom Rail



**Option 5**  
905 Top Rail  
903 Bottom Rail

**Option 6**  
901 Top Rail  
903 Bottom Rail

**Option 7**  
902 Top Rail  
903 Bottom Rail

**Note:**  
3/4" sq. pickets  
and 3/4" x 1 1/2"  
pickets are also  
interchangeable.

### Interchangeable Post

All 2" or 2 1/2" square posts can be substituted with a 4" square post.



Machined post openings are available for 2 1/2" and 4" square posts. A 4" machined post opening is shown above.



In the 9000 rail application above, 4" square posts are used for the end posts and a 2 1/2" square post is used for the crossover post.



9000 Railing, Open Triple Top Rail, 905 Top Rail and Series 500 Pipe Rail Used for Hand Rail Application

**SERIES  
9000**

**Meets ADA  
Regulations**

## 9000 Railing Well-crafted lines

Superior Series 9000 Railing features well-crafted lines and an attractive, innovative design that lends itself well to almost any commercial, industrial, or residential application. It's beauty, strength and durability will enhance the quality of your construction project.

## 9900 Railing Clean, rigid design

Superior Series 9900 Railing offers all the features of Series 9000 Railing, with the addition of 1 1/2" wide pickets. This robust alternative results in a strong, rugged design with a clean, refined appearance.



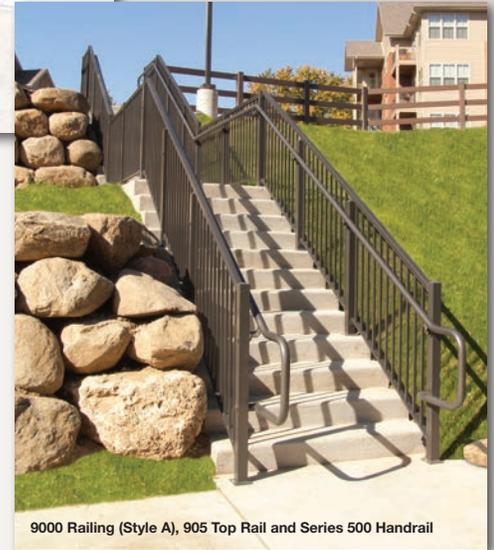
9000 Railing (Style C), 905 Top Rail



**No brackets on level  
and ramp railing!**



9000 Railing (Style B), 905 Top Rail



9000 Railing (Style A), 905 Top Rail and Series 500 Handrail



9900 Railing (Style A) with 902 Top Rail and Superior Aluminum Square Panel Columns



9000 Railing (Style A), 905 Top Rail and Series 500 Handrail

9000 Railing (Style A), 905 Top Rail



**Swivel brackets are  
required for all step  
rail applications.**



9900 Railing (Style A), 902 Top Rail and Superior Aluminum Square Panel Columns

## Continuous Top Rail



Unlike some other railing companies, Superior manufactures crossover posts for your rail system. The advantage of using these posts is a continuous top rail surface. Not only is this feature attractive, but it also allows for an uninterrupted gripping surface.

## Easy Assembly and Installation!

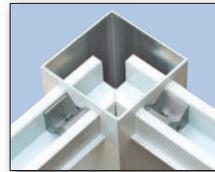


9000 Railing (Style A), 901 Top Rail with Square Smooth Columns and Series 7000 Fence



View of the underside of bottom rail to show rail wedge location.

**Series 9000 Railing is not only easy to assemble and install, but the machined post openings and factory assembled sections facilitate quick turn-around and cost savings.**



All level and ramp posts are machined with openings to receive the top and bottom rails. As assembled railing is inserted into the openings, a rail wedge located in the bottom rail will ensure proper insertion of 1 1/4" inside the post.

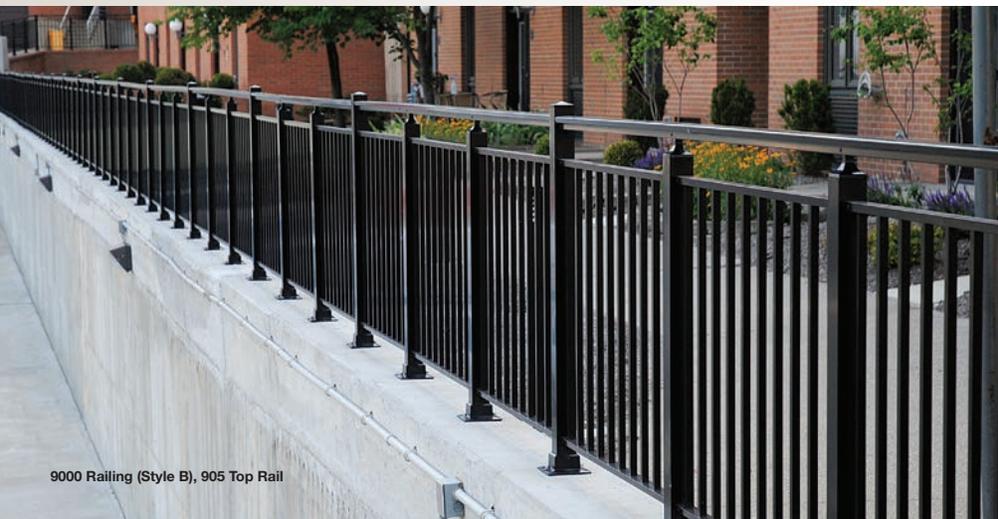


9000 Railing (Style A), 905 Top Rail and Series 500 Handrail



View of the top rail without post cap to show rail tabs.

Predrilled rail tabs are provided with the post to connect the top rails. If a railing section or sections need to be shortened, simply saw an equal amount from each railing end with the use of a miter or circular saw. Reinstall and tighten the rail wedge using an 1/8" Allen Wrench on the bottom rail so 1 1/4" protrudes through the post openings. Next, connect the two top rails together with a rail tab, and drive the post cap in place with a rubber mallet.

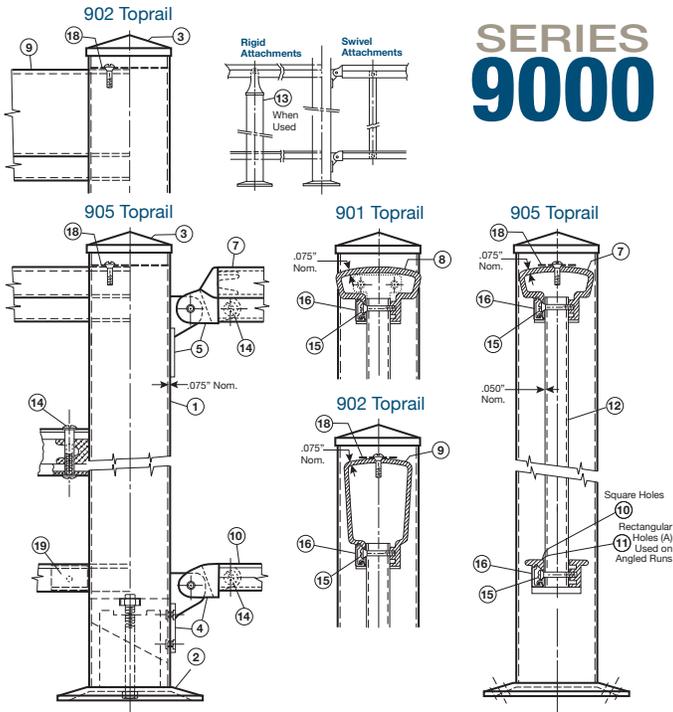


9000 Railing (Style B), 905 Top Rail



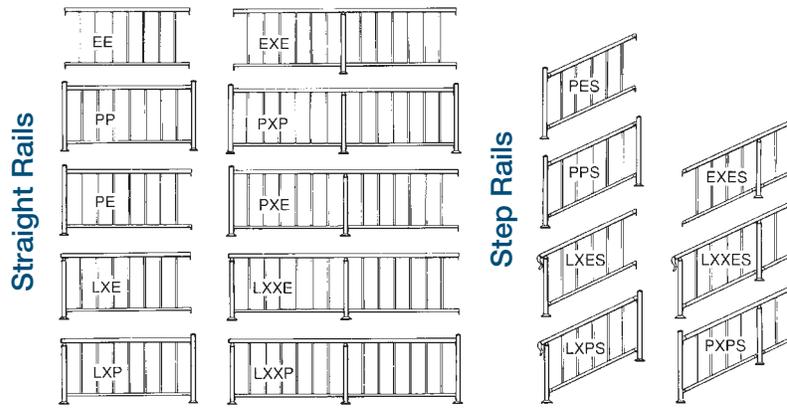
9000 Railing (Style B), 905 Top Rail with Custom Gate

# Assembly Identification

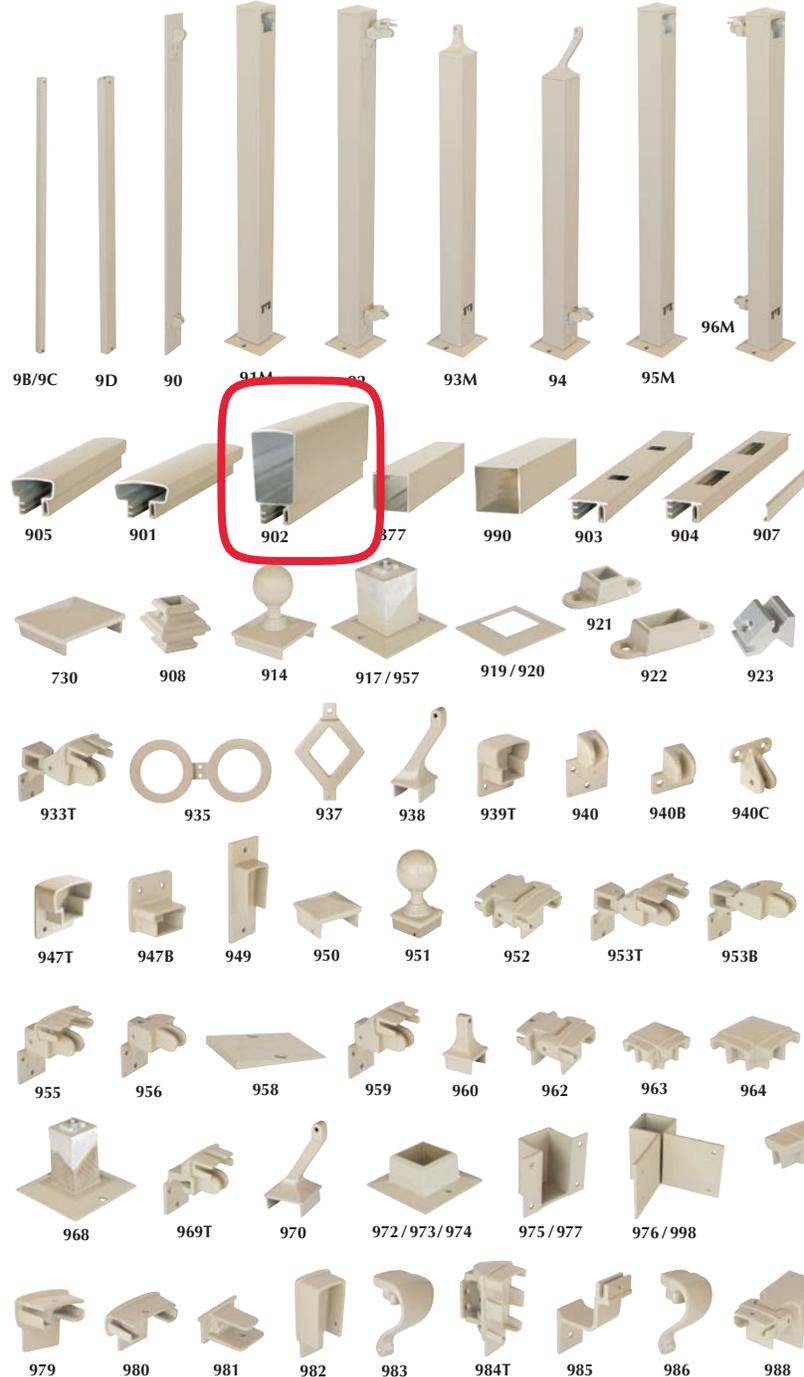


- |                                      |                           |
|--------------------------------------|---------------------------|
| 1. 990 2 1/2" Tube .075" Wall        | 10. 903 Bottom Rail       |
| 2. 957 Base Assembly                 | 11. 904 Bottom Rail (A)   |
| 3. 950 Cap                           | 12. 9B 3/4" Square Picket |
| 4. 956 Bottom Rail Swivel Assem.     | 13. 93M Crossover Post    |
| 5. 955 Top Rail Swivel Assem.        | 14. 912 8-32 Binder Bolt  |
| 6. 940 Top & Bottom Rigid Attachment | 15. 911 Picket Screws     |
| 7. 905 Top Rail 2" w x 1 5/8" h      | 16. 907 Screw Cover       |
| 8. 901 Top Rail 2 1/2" w x 1 5/8" h  | 17. 915 5/32" Dia. Rivets |
| 9. 902 Top Rail 2" w x 4" h          | 18. 924 Rail Tab          |
|                                      | 19. 923 Rail Wedge        |

# Design Selections

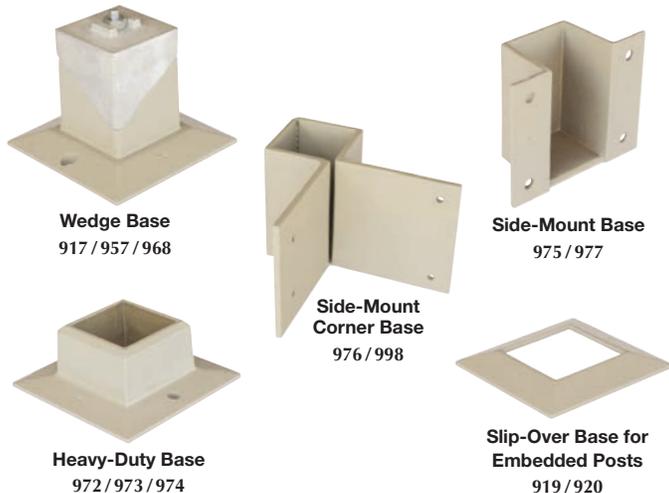


# Component Parts



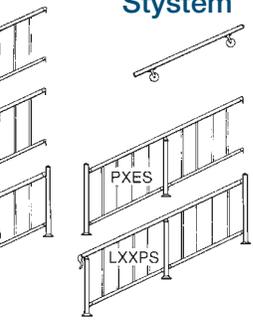
# Base Options

A variety of base options are available to fit any installation requirements. Series 9000 Railing can be base mounted with wedge-type or heavy-duty bases, side mounted with brackets, or embedded into concrete using an elongated post with a slip-over base.



# Parts Description

## Hand Rail System



### RAILS

- 901 Top Rail - 2 1/2" w x 1 5/8" h  
18' & 24' Lgths.
- 902 Top Rail - 2" w x 4" h  
18' & 24' Lgths.
- 903 Bottom Rail (Sq. Hole)  
1 5/8" w x 3/4" h, 18' Lgths.
- 904 Bottom Rail (Rect. Hole)  
1 5/8" w x 3/4" h, 18' Lgths.
- 905 Top Rail - 2" w x 1 5/8" h  
18' & 24' Lgths.
- 907 Screw Cover (For Top & Bott. Rail)  
16' Lgths.
- 909 Bottom Rail (1 1/2" w Hole),  
18' Lgths.

### FASTENERS

- 310 Rail Tab Screw
- 911 Picket Screws
- 912 Rail Bracket Binder Bolt
- 915 Post Bracket Rivet 5/32"

### POSTS & PICKETS

- 9B \_\_\_ Picket 3/4" Sq.- 4 1/2" Centers
- 9C \_\_\_ Picket 3/4" Sq.- 6" Centers
- 9D \_\_\_ Picket 3/4" x 1 1/2"
- 90 \_\_\_ Wall Plate
- 91 \_\_\_ End Post (Brackets)
- 91M \_\_\_ End Post (Machined Openings)
- 92 \_\_\_ Swivel Post
- 93 \_\_\_ Crossover Post (Brackets)
- 93M \_\_\_ Crossover Post (Machined Openings)
- 94 \_\_\_ Bottom Step Post
- 95 \_\_\_ Section Post (Brackets)
- 95M \_\_\_ Section Post (Machined Openings)
- 96 \_\_\_ Top Step Straight Post (Brackets)
- 96M \_\_\_ Top Step Straight Post (Machined Openings)
- 97 \_\_\_ Intermediate Step Post
- 98 \_\_\_ Corner Post (Brackets)
- 98M \_\_\_ Corner Post (Machined Openings)
- 99 \_\_\_ Top Step Corner Post (Brackets)
- 99M \_\_\_ Top Step Corner Post (Machined Openings)

**Specify Railing Height:  
32", 36", 42" or 48"**

### BASES

- 917 Wedge Base for 4" Post
- 919 2" Slip Over Base
- 920 2 1/2" Slip Over Base
- 957 Wedge Base for 2 1/2" Post
- 968 Wedge Base for 2" Post
- 972 Heavy-Duty Base for 4" Post
- 973 Heavy-Duty Base for 2 1/2" Post
- 974 Heavy-Duty Base for 2" Post
- 975 Side Mount Brkt. for 2 1/2" Post
- 976 Corner Side Mount Brkt. for 2 1/2" Post
- 977 Side Mount Bracket for 2" Post
- 998 Corner Side Mount Brkt. for 2" Post

### TUBING

- 990 2 1/2" Sq. - 16' white only & 18' Lgths.
- 377 2" Sq. - 16' white only & 18' Lgths.
- 380 4" Sq. - 16' Length

### CAST FITTINGS

- 730 Cap for 4" Post
- 906 17" Heart Scroll
- 908 Picket Collar
- 913 Internal splice for #905 Top Rail
- 914 Post Ball Cap for 4" Post with  
4" Diameter Ball
- 921 3/4" Square Picket Base
- 922 3/4" x 1 1/2" Picket Base
- 923 Rail Wedge
- 924 Rail Tab
- 929 Cast "X" Insert (4" Opening)
- 930 Cast Picket Spear - 4" High
- 933T 2-Way Swivel Bracket - 2"
- 935 3 3/4" OD Double Ring
- 936 Hanging Rail "L" Brackets
- 937 3 3/4" Cast Diamond
- 938 Angle Crossover Cap for 2" Step Post
- 939T Adj. End Fitting (for 905)
- 940 End Brkt. for Top & Bottom Rail
- 940B End Brkt. for #903 Bottom Rail
- 940C End Brkt. for 901 Top Rail Only
- 941 17" Cast "Fleur De-Lis" Insert
- 942 Cap for 2" Post
- 943 Post Ball Cap for 4" Post with  
2 1/2" Diameter Ball
- 946 Adj. End Brkt. Top (for 902)
- 947T Adj. End Fitting Top (for 901)
- 947B Adj. End Fitting Bottom
- 949 End Bracket for #902
- 950 Cap for 2 1/2" Post
- 951 Post Ball Cap for 2 1/2" Post
- 952 Top Rail Hinge 2 1/2" w
- 953T 2-Way Swivel Bracket - 2 1/2"
- 953B 2-Way Swivel Bottom
- 954T Horiz. Swivel Brkt. Top - 2 1/2"
- 954B Horiz. Swivel Brkt. Bottom
- 955 Vertical Swivel Top 2 1/2" w
- 956 Vertical Swivel Bottom
- 958 Vertical Ramp Plate
- 959 Vertical Swivel Top 2" w
- 960 Crossover Cap for 2" Post
- 962 Top Rail Hinge 2" w
- 963 Top Rail Corner 2" w
- 964 Top Rail Corner 2 1/2" w
- 965 Crossover Cap for 2 1/2" Post
- 966 Crossover Cap for 2 1/2" Post (Flat)
- 969T Horiz. Swivel Brkt. Top - 2" w
- 970 Angle Crossover Cap for 2 1/2" Step Post
- 971 Crossover Cap for 4" Post
- 978L Wall Return - LH for #905 Top Rail
- 978R Wall Return - RH for #905 Top Rail
- 979 End Cap for #905 Top Rail
- 980 End Cap for #901 Top Rail
- 981 End Cap for Bottom Rail
- 982 End Cap for #902 Top Rail
- 983 Lambs Tongue for #901 Top Rail
- 984T Horizontal Swivel for #902
- 985 Wall Brkt. for Handrail
- 986 Lambs Tongue for #905 Top Rail
- 988 90° Double Swivel for #905 Top Rail
- 989 Post Ball Cap for 2" Post
- 992 Post Finial for 2 1/2" Post
- 993 Cast Rose Snap-on Picket Insert
- 994 Cast Grape Snap-on Picket Insert
- 995 Cast Oak Snap-on Picket Insert
- 997 Cast "X" Insert (6" Opening)



9000 Railing (Style A), 905 Top Rail, and Series 500 Pipe Rail



9000 Railing, Open Triple Top Rail, 905 Top Rail



9000 Railing (Style B), 901 Top Rail



9000 Railing (Style B), 901 Top Rail

## Custom Applications

Superior Aluminum offers a variety of custom applications. These include, but are not limited to, attractive gates with custom locks, cast aluminum X-Inserts, an extruded X-Pattern System, and custom rail lengths and heights. Call Superior Aluminum to discuss your needs.



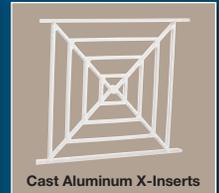
Extruded X-Pattern System with Superior Panel Columns on balcony and Superior Fiberglass Columns below.



Ask about our extruded X-Pattern System (shown above and to the left) and cast aluminum X-Inserts (shown below).



9000 Railing with Cast Aluminum X-Inserts



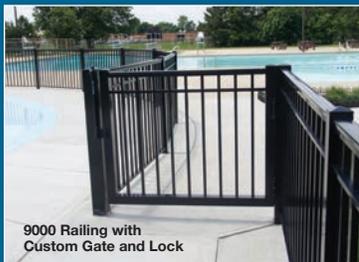
Cast Aluminum X-Inserts



9000 Railing with Custom Gate and Lock

Superior Aluminum manufactures attractive gates with custom locks upon request.

Ask about Series 2000 Cable Railing for a contemporary look.



9000 Railing with Custom Gate and Lock



9000 Railing with Custom Gate and Lock



Series 2000 Cable Railing

## MATERIALS -

(For 9000, 9900 Railing)

All rails, posts, and pickets shall be formed from 6063-T5 & 6063-T6 extruded aluminum alloys. All railing accessories shall be cast from industry standard aluminum alloys according to the requirements of the application. All exposed fasteners used in the system shall be aluminum or stainless steel.

## INSTALLATION -

The railing system can be either base mounted, side mounted or embedded into concrete.

Pickets shall run between the top and bottom rail.

(For 9000 Railing)

Pickets shall be  $\frac{3}{4}$ " square on  $4\frac{1}{2}$ " centers.

(For 9900 Railing)

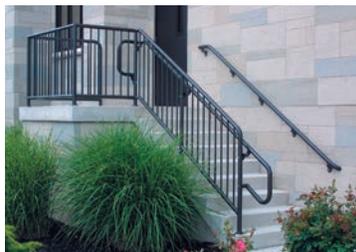
Pickets shall be  $1\frac{1}{2}$ " x  $\frac{3}{4}$ " on  $5\frac{1}{4}$ " centers.

The railing system will adapt to step railing requirements by providing the riser and tread dimensions of the steps and specifying a rectangular hole in the bottom rail.

## SCOPE OF WORK -

Aluminum railings as shown on drawings shall be Superior Series 9000 Heavy-Duty Aluminum Railings, as manufactured and supplied by Superior Aluminum Products, Inc., Russia, Ohio 45363.

Series 9000 Railing meets federal safety requirements as determined by an independent testing laboratory. Test results available upon request. Superior Series 9000 Railing is protected by US Patent #3707276.



Shown in both photos above: Superior Series 500 Non-Welded Aluminum Pipe Railing and Superior Series 550 Non-Welded Aluminum Pipe Picket Railing.

Ask about our complete line of

## Superior Aluminum Products:

- Aluminum Columns – Round (Fluted) & Square (Fluted, Smooth, Panel)
- Fiberglass Columns – Round & Square
- Series 2000 Aluminum Cable Railing
- Series 500 Non-Welded Aluminum Pipe Railing
- Series 550 Non-Welded Aluminum Pipe Picket Railing
- Series 600 Custom Residential Railing & Columns
- Series 7000 Aluminum Picket Fence & Custom Gates
- Series 9100 Architectural Aluminum Railing

**Superior** Aluminum Products, Inc.

555 East Main • P.O. Box 430 • Russia, OH 45363

937-526-4065 • Fax: 937-526-3904

info@superioraluminum.com • [www.superioraluminum.com](http://www.superioraluminum.com)

# BOWSER-MORNER, INC.

CORPORATE: 4518 TAYLORSVILLE ROAD. • P. O. BOX 51 • DAYTON, OHIO 45401 • 937/236-8805

## LABORATORY REPORT

**TO:** Superior Aluminum Products  
P.O. Box 430  
555 E. Main Street  
Russia, Ohio 45363  
Attention: Mr. Patrick Francis

**BMI NO:** 10029516  
**GROUP NO:** 71074  
**SAMPLE NO:** 103461  
**P. O. NO:** 5895  
**DATE:** April 12, 2011

**ON:** (Sample Identification) Rail A  
Load Test on Series 9000 Aluminum Railing in accordance with ASTM E935/E985

### SAMPLE DESCRIPTION:

Series 9000 Aluminum Railing with a 905 top rail with baluster infill and 3 posts with 973S cast aluminum bases and 3" reinforcement bar. The posts are 2.5" x 2.5" with .075" wall and are spaced 6 feet apart. The posts are machined to provide a cutout of the outer profile of the railing. The railing intersects with the post and brackets are fastened internally of the post to the railing.

### TEST EQUIPMENT:

Dial Calipers, BMI 570, 0 to 8 in. range with 0.001 increments, calibrated April 1, 2011. Load cell, range 0 to 2000 lbs. S-type, BMI 8133 cal date April 20, 2010 with digital readout BMI 1850.  
Equipment calibration reported above conforms with all applicable provisions of ISO 17025, ANSI/NCSL Z540, and ISO 9000.

### TEST METHODS:

The aluminum railing was installed as in actual installation. The railing was subjected to a concentrated load. The load is applied perpendicular to the horizontal plane of the top rail and at the point that would cause the greatest stress (weakest location). The concentrated load was applied at the end post 12 feet from the opposite end post. The load was increased incrementally at 15% of maximum load. The initial load was 1/2 of maximum load, held for two minutes then reduced to 1/2 of initial load for zero recording. Each incremental load was held for a period of two minutes prior to the next load applied. Deflection versus load readings was recorded at each incremental load. Final reading recorded when the load was reduced back to 1/2 of initial load. Maximum allowable deflection is 3.5 inches. The results are reported below.

Load (lbs)	Caliper reading (inches)	Δ Deflection (inches)
200		
100	3.11	0
160	3.39	.28
220	3.72	.61
280	4.17	1.06
340	4.60	1.49
400	5.10	1.99
100	3.69	.58

**Summary:** Rail A met the requirements in accordance with ASTM E935/E985.

Respectfully Submitted,

*Bud Miyahara*

Bud Miyahara  
Test Engineer  
BOWSER-MORNER, INC.