

# Tech Spec

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## PRODUCT

Ultra Aluminum Picket Fence

## MANUFACTURER INFORMATION

Ultra Aluminum Mfg., Inc.  
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## DESCRIPTION

**Basic Uses:** To provide attractive, maintenance-free security for residential, commercial, industrial and recreational applications. The Ultra Aluminum Picket Fence is the ideal choice whenever there is a need for security and protection that complements the architectural or landscape design.

Because of the unique properties of aluminum, this fence will not rust or corrode, even when exposed to the constant moisture around swimming pools and coastal areas.

There are five strengths of the Ultra Aluminum grades available: Residential, Ultra, Commercial, Industrial, and Heavy Industrial. The Residential Ultra strength is ideal for most areas; the Industrial and Heavy Industrial provide the maximum protection.

**Composition and Materials:** The Ultra Aluminum Picket Fence is manufactured from aluminum extrusions, having a minimum tensile strength of 35,000 psi, using 6005 T5 alloy for structural components. All screws are stainless steel with a plating of zinc and yellow dichromate to ensure corrosion resistance under the harshest conditions. The screw heads are painted to match the color of the fence with a polyurethane finish.

**Sizes:** The Residential, Ultra and Commercial strength fence are available in heights of 3', 3½', 4', 5', and 6'. Matching gates are available in widths up to 6'. Industrial and Heavy Industrial strength fences are available in heights of 3', 4', 5', 6', 7', 8', 9', and 10'. Gates are available in heights of 3', 4', 5', 6', 7', 8', 9', and 10'. Gates are available in widths up

to 12' for an 8' high fence and 20' for all other heights.

**Colors:** The powder coat finish comes in Pearl Black, White, Bronze, Forest Green and Designer Beige. Custom colors and Anodized can also be provided.

**Styles:** Eight different styles are available for Residential, Ultra, Commercial, Industrial and Heavy Industrial.

## TECHNICAL DATA

**Pickets:** The hollow pickets pass through the rails and are attached using stainless steel screws. By using this method of attachment, the pickets are always parallel regardless of the pitch of the terrain.

- Residential Pickets are 5/8" square x .050" thick.
- Ultra Picket are 1" x 5/8" x .062" thick.
- Commercial Pickets are 3/4" square x .055" thick.
- Industrial Pickets are 1" square x .062" thick.

**Horizontal Rails:** Rails are specially designed C-Channels. Square holes are punched in the top of the rails to allow the pickets to pass through. Because aluminum extrusions allow metal to be placed where it is needed most, the top has been designed for additional strength. The number of rails used in a section varies with the height and strength of the fence.

- Residential – Rails are 1 1/8" x 1" with .082" sides and .062" top thickness.
- Ultra – Rails are 1 1/8" x 1" with .082" sides and .062" top thickness.
- Commercial – Rails are 1 3/8" x 1 1/4" with .088" sides and .065" top thickness.
- Industrial – Rails are 1 5/8" x 1 5/8" with a side wall thickness of .100" and .070" thick top wall.
- Heavy Industrial – Rails are 1 1/8" x 1" with a side wall thickness of .080", top wall thickness .062" and snaps into the top allowing all screws to be enclosed inside of the rail.

**Posts:** Posts are hollow square extrusions with holes prepunched to allow the rails from the fence sections to slide into them. This keeps the fence sections securely in place.

- Residential – Posts are 2" square x .060", .080" or .125" thick or 2 1/2" square x .100" thick.
- Commercial – Posts are 2" square x .080" thick or 2 1/2" square x .100" thick or 3" square x .125" thick.
- Industrial – Posts are 2 1/2" square x .100" thick or 3" square x .125" thick or 4" square x .125" thick.

**Gates:** Matching gates are available for all styles. Residential gates are fabricated with 2" square ends, 1 1/8" x 1" rails and 5/8" square pickets.

Ultra gates are fabricated with 2" square ends, 1<sup>1</sup>/<sub>8</sub>" x 1" rails and 5<sup>5</sup>/<sub>8</sub>" x 1" Ultra Pickets. Commercial gates are fabricated with 2" square ends, 1<sup>3</sup>/<sub>8</sub>" x 1<sup>1</sup>/<sub>4</sub>" rails and 3<sup>3</sup>/<sub>4</sub>" pickets. Industrial and Heavy Industrial gates are fabricated with 2<sup>1</sup>/<sub>2</sub>" square ends, 1<sup>5</sup>/<sub>8</sub>" x 1<sup>5</sup>/<sub>8</sub>" rails and 1" square pickets. The hinges are made from aluminum extrusions with a 3<sup>3</sup>/<sub>8</sub>" stainless steel pin that may be attached to either a post or a wall. Self-closing springs and self-latching latches are available for all gates.

NOTE: A 4' gate fits a 4' opening, inside-to-inside of the posts.

**Finish:**

**Pretreatment:** A three stage non-chrome pretreatment shall be applied. The first step shall be a chemical cleaning, followed by a water rinse. The final stage shall be a dry-in-place activator which produces a uniform chemical conversion coating for superior adhesion. Screws shall be plated with yellow and zinc dichromate to ensure corrosion resistance.

**Coating:** Fence materials shall be coated with a TGIC polyester powder-coat finish system. The finish shall have a cured film thickness of at least 2.0 mils. In addition, the screw heads shall be painted to match the color of the fence.

**Tests:** The cured FencCoat finish shall meet the following:

1. Humidity resistance of 3,000 hours using ASTM D2247.
2. Salt spray resistance of 3,000 hours using ASTM B117.
3. Accelerated weathering for 500 hours under Method 6152 of Federal Test Method 141 shall show no adhesion loss, with only slight fading, chalking and water staining.
4. Outdoor weathering shall show no adhesion loss, checking or crazing, with only slight fade and chalk when exposed for one year in Florida facing south at a 45° angle.
5. Minimum hardness of 2H using ASTM D3363.

**WARRANTY**

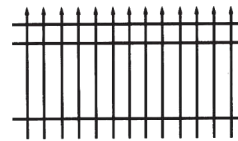
Ultra Aluminum guarantees the Aluminum Picket Fence for life. This guarantee covers defects in workmanship and materials, as well as the powder finish of the fence. The paint will not peel, crack, or chip.

**MAINTENANCE**

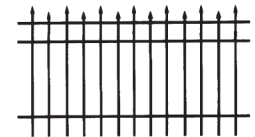
No maintenance is required due to the excellent corrosion resistance of the powder coated aluminum.

**DRAWINGS AND ILLUSTRATIONS**

Additional information, brochures and pricing or the name of the Ultra Aluminum dealer in your area may be obtained by contacting the manufacturer at (800) 656-4420 (8:00 am - 4:00 pm Eastern Standard Time).



UAS-100  
Spear Top



UAS-150  
Staggered Spear



UAF-101  
Spear Top w/1 5/8" Spacing



UAF-250  
Flat Top w/Spear



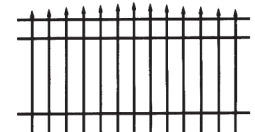
UAF-200  
Flat Top



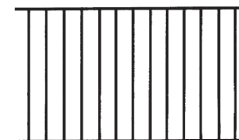
UAF-201  
Flat Top w/1 5/8" Spacing



UAS-300  
Concave

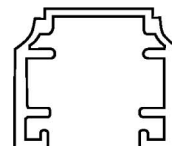


UAS-350  
Convex

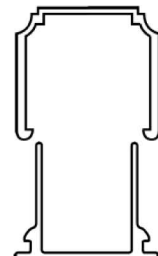


UAB-400  
Ultra Picket

**TYPICAL RAIL CROSS SECTIONS**



Standard Residential,  
Commercial and  
Industrial Rail



Heavy Industrial Rail Top  
snaps over bottom closure  
concealing screw heads