

Part I – General

1.1 Scope

A. Furnish letters and hardware necessary to install Cut Metal letters and logos, shown on drawings and herein specified.

1.2 Submittals

- A. Manufacturer's illustrated product literature and specifications.
- B. Installation instructions

1.3 Quality Assurance

- A. Manufacturer to have a minimum of 25 years experience in manufacturing letters.
- B. All letters to be manufactured by one manufacturer.

Part II – Products

2.1 Acceptable Manufacturer or Manufacturer's Representative

- A. Gemini Incorporated
103 Mensing Way
Cannon Falls, MN 55009
Phone: 800-538-8377 or 507-263-3957
Fax: 800-421-1256 or 507-263-4887
Email: sales@geminisignproducts.com
Web: www.geminisignproducts.com

2.2 Materials (Metal Alloy & Gauges)

- A. Aluminum - 5052 Alloy: 1/8", 1/4", 3/8", 1/2", 3/4", 1" thick
- B. Stainless Steel – C304 Alloy and 316 Alloy (more corrosion resistant): 1/8", 1/4", 3/8", 1/2" thick
- C. Bronze – C22000 Commercial Alloy: 1/8", 1/4", 3/8", 1/2" thick
- D. Brass – C46400 Alloy (No Lead) or 280 Muntz: 1/8", 1/4", 3/8", 1/2", 3/4" thick
- E. Copper – C1100 Alloy: 1/8", 1/4", 3/8" thick
- F. Cor-Ten™ Steel – A588: 1/8" or 1/4" thick

2.3 General Construction

- A. Cutting
 - 1. Flat Cut: Laser or Waterjet cut (based on Metal, Gauge and Product), using computer-guided equipment.
 - 2. MINI Letters: Precision CNC cut. (under 3" high), using computer guided equipment.
 - 3. Premium Finish (over 3" high): using computer guided equipment.

2.4 Finishes (meeting ASTM G4A specifications)

- A. Aluminum
 - 1. Brushed face, 5052 Alloy, #2-#3 finish (#4 optional) vertical grain direction standard; horizontal grain, random arc, or orbital sanded optional. Bead-blasted returns, clear low-gloss powder coated, oven baked.
 - 2. Painted face & returns (standard or custom colors), 5052 Alloy, bead-blasted returns, sprayed with acrylic polyurethane (1.75 +/- .25 mils thick) gloss sheen standard on most colors, semi-gloss, satin or matte optional, oven baked.
 - 3. Clear Anodized, 5052 Alloy, bead-blasted returns, process complies with AA-M33-C22-A31 Architectural Class II sulfuric anodizing process with coating thickness of 0.4 mil to 0.7 mil., no clear coat.
 - 4. Gold Anodized, 5052 Alloy, bead-blasted returns, process complies with AA-M33-C22-A43 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 5. Medium Bronze Anodized, 5052 Alloy, bead-blasted return, process complies with AA-M33-C22-A44 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 6. Dark Bronze Anodized, 5052 Alloy, bead-blasted return, process complies with AA-M33-C22-A44 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 7. Black Anodized, 5052 Alloy, bead-blasted return, process complies with AA-M33-C22-A44 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 8. Champagne and Light Bronze Anodized, 5052 Alloy, bead-blasted returns, process complies with AA-M33-C22-A44 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 9. Polished Anodized: 5052 Alloy, (not a mirror finish) Polished, then Anodized any standard Anodized color, or left Clear Process meets AA-M33-C22-A43 for Architectural Class I sulfuric anodizing process with a coating thickness of 0.7 mil and thicker, no clear coat.
 - 10. Polished face, Directional #8 finish, 5052 Alloy, bead-blasted returns (optional clear coating)
 - 11. Premium & Premium MINI Letters: hand sanded, interior display quality finishing, no clear coat on MINI.

- B. Bronze/Brass/Copper
 1. Brushed face, #2-#3 finish (#4 optional) vertical grain standard; horizontal grain optional, bead-blasted returns, 2-part hardened acrylic polyurethane low-gloss clear coat (other sheens optional), baked.
 2. Polished face, Directional #8 finish, bead-blasted returns, 2-part hardened acrylic polyurethane gloss clear coat, baked.
 3. Oxidized, US10B finish, (available as Standard, Light or Dark Oxidized), bead-blasted returns, 2-part hardened acrylic polyurethane low-gloss clear coat, baked
 4. Traditional or Turquoise Patina (finish varies from letter to letter, not uniform), light clear coat, baked.
 5. Premium & Premium MINI Letters: hand sanded, interior display quality finish. No clear coat on MINI.
- C. Stainless Steel (304 or 316 Alloy) Passivated following ASTM A 967 and ASTM 2700 standards, to protect against corrosion.
 1. Brushed face, #2-#3 finish (#4 optional) vertical grain standard; horizontal grain optional, bead-blasted returns, no clear coat-standard (optional clear coating).
 2. Polished face, Directional #8 finish, bead-blasted returns, no clear coat-standard, optional gloss clear coating.
- D. Cor-Ten™
 1. Natural rust, color will vary from letter to letter as metal oxidizes, no grain direction, bead blasted returns, no clear coat. Cor-Ten B meeting ASTM A588 and A606 Type 4 requirements.
- E. Gemini standard Cut Metal Letters do not have polished returns. Premium Finish Letters are available with combinations of Brushed, Polished or hand-sanded faces, straight or beveled returns.
- F. Certifications: Gemini Cut Metal products are certified for the Buy American Program, the Made in America requirements of the American Recovery Act of 2009, the EU REACH program, and qualify jobs for LEED program points.

2.5 Mounting Hardware & Options

- A. Blind stud standard, available aligned for Brick, Block, or Rail. Optional Single or Double Rail, Top/Bottom Rail, Bottom angle Bracket (min. 3/8"thick), Top or Bottom Stud (min.3/8"th). Tie-backs recommended for any Top & Bottom mounts on letters over 8"high - not included.
- B. Letters under 15", drilled & tapped for 10-24 threaded studs. Thin strokes, 6-32 threaded studs.
- C. Letters 15"+, drilled & tapped for 1/4-20 studs (5056 alloy Aluminum studs with Aluminum letters, 302 alloy Stainless Steel studs with Stainless and red metal letters). Typical studs are 2"long – longer available upon request.
- D. Aluminum stud spacer sleeves available upon request, standard or custom lengths available.

2.6 Fabrication

- A. Letters shall be made of _____.
- B. Letter shall be _____ letter style and shall be _____ inches high, as indicated on the drawings.
- C. Finish shall be _____.
- D. Mounting shall be _____ with a Perfect Pattern drilling template, designating stud locations are / are not required for mounting on a _____ surface.

Part III – Execution

3.1 Installation

- A. A qualified installer shall install Cut Metal letters and logos. Additional structural support may be required on larger and heavier Letters & Logos. Stronger adhesives, such as Epoxy may be required to install with studs on heavier products.

3.2 Warranty

- A. Letters should be guaranteed for the life of the business against defects.

3.3 Maintenance

- A. Cleaning as needed per manufacturer recommendations.