

CUT METAL - Letters & Logo Specifications

Part I - General

1.1 Scope

A. Furnish letters and hardware necessary to install Cut Metal letter/logos, shown on drawing 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 15 years experience in manufacturing Letters/Custom Signs/Logos.
B. All letters to be manufactured by one manufacturer.

Part II - Products

2.1 Acceptable Manufacturer or Manufacturers Representative

A. LettersandSigns.com (a division of Trademarks Signs)
11447 Strang Line Rd
Lenexa, KS 66215
Phone: 816-800-9444
Email: sales@lettersandsigns.com
WEB: www.lettersandsigns.com

2.2 Materials

- 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, for marine environments. (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) (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): Hand sanded or polished, face-return combinations.

2.4 Finishes (meeting ASTM GSA 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, baked.
2. Painted face & returns (standard or custom colors), 5052 Alloy, bead-blasted returns, sprayed with acrylic polyurethane (1.75+/- .25 mils thick) gloss, semi-gloss, satin or matte sheen, 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-A31 Architectural Class II sulfuric anodizing process with coating thickness of 0.4 mil to 0.7 mil, no clear coat.
5. Medium Bronze 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.
6. Dark Bronze 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.
7. Black 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.
8. Champagne and Light Bronze 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.
9. Polished 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.
10. Polished #8 faces, 5052 Alloy, bead-blasted returns, 2-part hardened gloss acrylic polyurethane clear coat, baked.
11. Rust Powder coated, bead blasted returns, baked.
12. Premium & Premium MINI letters: hand sanded, interior display quality finishing, no clear coat on MINI.

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2.4 Finishes - Continued

- 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 (gloss optional), baked.
 - 2. Polished face, #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 Patine (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 low gloss clear coating.
 - 2. Polished #8 face, 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 A 606 Type 4 requirements.
- E. 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 (price varies by options chosen).
- F. Certifications: Our 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, the 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" thick). 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 or any red metal letters). Typical studs are 2" long- longer available upon request.
- D. Metal spacer sleeved available upon request, standard or custom lengths available.

Part III - Execution

3.1 Installation

- A. A qualified installer shall install cast letters and logos.

3.2 Warranty

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

3.3 Maintenance

- A. Cleaning of Letters / Logos as needed, per manufacturers recommendations.