SECTION 05 70 00

DECORATIVE METAL - EXPANDED MESH, PERFORATED, LASER CUT, AND FRP PANELS

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* AMICO Architectural Metals; Expanded mesh, perforated metal, and laser-cut facades, ceilings, screens, and sunshades.  
This section is based on the products of AMICO Architectural Metals, which is located at:3245 Fayette Ave.Birmingham, AL 35207Toll Free Tel: 833-333-3902Fax: 205-786-6527Email: [request info (mnelson@amicoarchitectural.com)](https://arcat.com/rfi?action=email&company=AMICO%252BArchitectural%252BMetals&message=RE%253A%2520Spec%2520Question%2520(05700ami)%253A%2520&coid=30244&spec=05700ami&rep=&fax=205-786-6527)  
Web: <https://amicoarchitectural.com/>   
   
[ [Click Here](https://arcat.com/company/amico-architectural-metals-30244) ] for additional information.  
  
AMICO is your partner for architectural metal manufacturing, design, and fabrication. We have been a North American industry leader since 1939, specializing in perforated metal, expanded mesh, and laser-cut panels. As we've grown and evolved with the industry, we aim to provide graceful, design-forward product solutions to help architects build unique and beautiful environments with architectural metals. Our metal products are of the highest standard, and our knowledge and services have allowed us to be partners on award-winning and iconic design projects from the early design stage to the job site. As your project partner, we bring years of architectural experience, detailing support, vast fabrication capabilities, engineering load analysis, job site coordination, overall flexibility, and a love of great architecture to drive design success. Our broad manufacturing footprint spans more than ten locations across North America, allowing us to produce Build America Buy America and Made in Canada projects.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Standard flattened expansion mesh.
    2. Standard raised expansion mesh.
    3. Expanded mesh.
    4. Perforated metals.
    5. Laser cut architectural metals.
    6. Plank gratings.
    7. FRP architectural panels.
  1. RELATED SECTIONS.

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 05 50 00 - Metal Fabrications.
    2. Section 07 70 00 - Roof and Wall Specialties and Accessories.
    3. Section 23 37 13 - Diffusers, Registers and Grilles.
  1. DEFINITIONS
     1. SWD: Short Way Diamond.
     2. LWD: Long Way Diamond.
     3. SWO: Short Way Opening.
     4. LWO: Long Way Opening.
  2. SUBMITTALS
     1. Submit under the provisions of Section 01 30 00.
     2. Delegated-Design Submittal: For fabrications indicated to comply with design loads. Include shop drawings, design calculations, and other structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation, licensed by the State in which the project is located.
     3. Product Data:
        1. Manufacturer's data sheets on each product to be used.
        2. Preparation instructions and recommendations.
        3. Storage and handling requirements and recommendations.
        4. Typical installation methods.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Shop Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum of five years' documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
       1. The intent of a mock-up is to demonstrate quality of workmanship and visual appearance.
       2. If the mock-up is not acceptable, rebuild the mock-up until satisfactory results are achieved.
       3. Retain mock-up during construction as a standard for comparison with completed work.
       4. Do not alter or remove mock-up until work is completed or removal is authorized.
  1. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before the scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. The agenda shall include schedule, responsibilities, critical path items and approvals.
  2. DELIVERY, STORAGE, AND HANDLING
     1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     2. Protect from damage due to weather, excessive temperature, and construction operations.
  3. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
  4. WARRANTY
     1. Manufacturer's standard limited warranty unless indicated otherwise.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: AMICO Architectural Metals, which is located at:3245 Fayette Ave.Birmingham, AL 35207Toll Free Tel: 833-333-3902Fax: 205-786-6527Email: [request info (mnelson@amicoarchitectural.com)](https://arcat.com/rfi?action=email&company=AMICO%252BArchitectural%252BMetals&message=RE%253A%2520Spec%2520Question%2520(05700ami)%253A%2520&coid=30244&spec=05700ami&rep=&fax=205-786-6527);Web: <https://amicoarchitectural.com/>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with the requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with the provisions of Section 01 60 00.
  1. PERFORMANCE AND DESIGN CRITERIA
     1. Delegated Design: Engage a qualified professional engineer to design the required fabrications, including comprehensive engineering analysis. Use performance requirements and design criteria specified in this document, and requirements according to Authorities Having Jurisdiction at the Project location. The most stringent criteria from these sources will establish the minimum engineering and design requirements for this work result.
     2. General: Expanded mesh, perforated metal, attachment brackets, and/or fabricated elements and support frames.
     3. Utilize AMICO's expanded mesh and perforated materials cut and fabricated to the design specifications of the customer and confirmed by AMICO shop drawings.
     4. Tolerance of Panels and Components: Fabricated to a tolerance not exceeding 1/8 inch deviation in any dimension as shown in approved shop drawings.
     5. Accessories: Attachment Clips: Stainless steel.
     6. Material:

\*\* NOTE TO SPECIFIER \*\* Delete thickness option not required. Note that mesh style APEX02 is to be 3/16 inch thick.

* + - 1. Thickness: \_\_\_\_\_ inches.
      2. Thickness: 0.125 inches.

\*\* NOTE TO SPECIFIER \*\* Delete material type options not required.

* + - 1. Type: \_\_\_\_\_\_\_\_.
      2. Type: Aluminum Alloy 5005 O AQ.
      3. Type: Aluminum Alloy 3003 H14.
      4. Type: Aluminum Alloy 1100 H14.
      5. Type: Aluminum Alloy 1100 O Temper.
      6. Type: Steel.
      7. Type: Copper.
      8. Type: Brass.
      9. Type: Corten.
      10. Panel Size and Depth: Custom per design. Maximum dimensions are dependent on mesh style.

\*\* NOTE TO SPECIFIER \*\* Delete finish and color options not required.

* + - 1. Finish: As determined by the Architect.
      2. Finish: Fluoropolymer paint.
      3. Finish: Powder coating.
      4. Finish: Anodized.
      5. Finish: \_\_\_\_\_\_\_\_.
      6. Color: As determined by the Architect.
      7. Color: \_\_\_\_\_\_\_\_.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. STANDARD FLATTENED EXPANSION MESH

\*\* NOTE TO SPECIFIER \*\* Delete style options not required.

* + 1. Style: 1/4 inch - No. 20.
       1. Min. Thickness: 0.026 inches.
       2. Nominal weight: 74 lbs per 100 sq ft.
       3. SWD: 0.25 inches.
       4. LWD: 1.05 inches.
       5. SWO: 0.092 inches.
       6. LWO: 0.715 inches.
       7. Strand Width: 0.079 inches.
       8. Strand and Overall Thickness: 0.029 inches.
       9. Open Area: 37 percent.
    2. Style: 1/4 inch - No. 18.
       1. Min. Thickness: 0.034 inches.
       2. Nominal weight: 100 lbs per sq ft.
       3. SWD: 0.25 inches.
       4. LWD: 1.05 inches.
       5. SWO: 0.090 inches.
       6. LWO: 0.715 inches.
       7. Strand Width: 0.08 inches.
       8. Strand and Overall Thickness: 0.038 inches.
       9. Open Area: 36 percent.
    3. Style: 1/2 inch - No. 20.
       1. Thickness: 0.026 minimum.
       2. Nominal Weight: 37 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.26 inches.
       5. SWO: 0.342 inches.
       6. LWO: 1 inch.
       7. Strand Width: 0.79 inches.
       8. Strand and Overall Thickness: 0.029 inches.
       9. Open Area: 68 percent.
    4. Style: 1/2 inch - No. 18.
       1. Thickness: 0.034 minimum.
       2. Nominal Weight: 61 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.26 inches.
       5. SWO: 0.306 inches.
       6. LWO: 1 inch.
       7. Strand Width: 0.97 inches.
       8. Strand and Overall Thickness: 0.038 inches.
       9. Open Area: 61 percent.
    5. Style: 1/2 inch - No. 16.
       1. Thickness: 0.043 minimum.
       2. Nominal Weight: 77 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.26 inches.
       5. SWO: 0.304 inches.
       6. LWO: 1 inch.
       7. Strand Width: 0.98 inches.
       8. Strand and Overall Thickness: 0.048 inches.
       9. Open Area: 61 percent.
    6. Style: 1/2 inch - No. 13.
       1. Thickness: 0.066 minimum.
       2. Nominal Weight: 126 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.26 inches.
       5. SWO: 0.286 inches.
       6. LWO: 1 inch.
       7. Strand Width: 0.107 inches.
       8. Strand and Overall Thickness: 0.72 inches.
       9. Open Area: 57 percent.
    7. Style: 3/4 inch - No. 16.
       1. Thickness: 0.043 minimum.
       2. Nominal Weight: 47 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2.1 inches.
       5. SWO: 0.701 inches.
       6. LWO: 1.75 inches.
       7. Strand Width: 0.111 inches.
       8. Strand and Overall Thickness: 0.048 inches.
       9. Open Area: 76 percent.
    8. Style: 3/4 inch - No. 14.
       1. Thickness: 0.054 minimum.
       2. Nominal Weight: 56 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2.1 inches.
       5. SWO: 0.713 inches.
       6. LWO: 1.76 inches.
       7. Strand Width: 0.105 inches.
       8. Strand and Overall Thickness: 0.06 inches.
       9. Open Area: 77 percent.
    9. Style: 3/4 inch - No. 13.
       1. Thickness: 0.066 minimum.
       2. Nominal Weight: 67 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2.1 inches.
       5. SWO: 0.711 inches.
       6. LWO: 1.78 inches.
       7. Strand Width: 0.106 inches.
       8. Strand and Overall Thickness: 0.072 inches.
       9. Open Area: 77 percent.
    10. Style: 3/4 inch - No. 10.
        1. Thickness: 0.066 minimum.
        2. Nominal Weight: 102 lbs per sq ft.
        3. SWD: 0.923 inches.
        4. LWD: 2.1 inches.
        5. SWO: 0.603 inches.
        6. LWO: 1.75 inches.
        7. Strand Width: 0.160 inches.
        8. Strand and Overall Thickness: 0.072 inches.
        9. Open Area: 65 percent.
    11. Style: 3/4 inch - No. 9.
        1. Thickness: 0.101 minimum.
        2. Nominal Weight: 157 lbs per sq ft.
        3. SWD: 0.923 inches.
        4. LWD: 2.1 inches.
        5. SWO: 0.593 inches.
        6. LWO: 1.68 inches.
        7. Strand Width: 0.165 inches.
        8. Strand and Overall Thickness: 0.108 inches.
        9. Open Area: 64 percent.
    12. Style: 1 inch - No. 16.
        1. Thickness: 0.043 minimum.
        2. Nominal Weight: 38 lbs per sq ft.
        3. SWD: 1 inch.
        4. LWD: 2.52 inches.
        5. SWO: 0.804 inches.
        6. LWO: 2.25 inches.
        7. Strand Width: 0.098 inches.
        8. Strand and Overall Thickness: 0.048 inches.
        9. Open Area: 80 percent.
    13. Style: 1-1/2 inch - No. 16.
        1. Thickness: 0.043 minimum.
        2. Nominal Weight: 35 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3.15 inches.
        5. SWO: 1.092 inches.
        6. LWO: 2.75 inches.
        7. Strand Width: 0.119 inches.
        8. Strand and Overall Thickness: 0.048 inches.
        9. Open Area: 82 percent.
    14. Style: 1-1/2 inch - No. 14.
        1. Thickness: 0.054 minimum.
        2. Nominal Weight: 43 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3.15 inches.
        5. SWO: 1.098 inches.
        6. LWO: 2.75 inches.
        7. Strand Width: 0.116 inches.
        8. Strand and Overall Thickness: 0.06 inches.
        9. Open Area: 83 percent.
    15. Style: 1-1/2 inch - No. 13.
        1. Thickness: 0.066 minimum.
        2. Nominal Weight: 51 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3.15 inches.
        5. SWO: 1.098 inches.
        6. LWO: 2.75 inches.
        7. Strand Width: 0.116 inches.
        8. Strand and Overall Thickness: 0.072 inches.
        9. Open Area: 83 percent.
    16. Style: 1-1/2 inch - No. 9.
        1. Thickness: 0.101 minimum.
        2. Nominal Weight: 105 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3.15 inches.
        5. SWO: 1.014 inches.
        6. LWO: 2.56 inches.
        7. Strand Width: 0.158 inches.
        8. Strand and Overall Thickness: 0.108 inches.
        9. Open Area: 76 percent.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. STANDARD RAISED EXPANSION MESH

\*\* NOTE TO SPECIFIER \*\* Delete style options not required.

* + 1. Style: 1/4 inch - No. 20R.
       1. Min. Thickness: 0.32 inches.
       2. Nominal weight: 85 lbs per 100 sq ft.
       3. SWD: 0.25 inches.
       4. LWD: 1 inch.
       5. SWO: 0.157 inches.
       6. LWO: 0.718 inches.
       7. Strand Width: 0.072 inches.
       8. Strand Thickness: 0.036 inches.
       9. Overall Thickness: 0.146 inches.
       10. Open Area: 42 percent.
    2. Style: 1/4 inch - No. 18R.
       1. Min. Thickness: 0.042 inches.
       2. Nominal weight: 113 lbs per sq ft.
       3. SWD: 0.25 inches.
       4. LWD: 1 inches.
       5. SWO: 0.146 inches.
       6. LWO: 0.718 inches.
       7. Strand Width: 0.072 inches.
       8. Strand Thickness: 0.048 inches.
       9. Overall Thickness: 0.151 inches.
       10. Open Area: 36 percent.
    3. Style: 1/2 inch - No. 20R.
       1. Thickness: 0.032 minimum.
       2. Nominal Weight: 42 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.2 inches.
       5. SWO: 0.407 inches.
       6. LWO: 0.938 inches.
       7. Strand Width: 0.072 inches.
       8. Strand Thickness: 0.036 inches.
       9. Overall Thickness: 0.146 inches.
       10. Open Area: 71 percent.
    4. Style: 1/2 inch - No. 18R.
       1. Thickness: 0.042 minimum.
       2. Nominal Weight: 69 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.2 inches.
       5. SWO: 0.382 inches.
       6. LWO: 0.938 inches.
       7. Strand Width: 0.088 inches.
       8. Strand Thickness: 0.048 inches.
       9. Overall Thickness: 0.18 inches.
       10. Open Area: 65 percent.
    5. Style: 1/2 inch - No. 16R.
       1. Thickness: 0.053 minimum.
       2. Nominal Weight: 85 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.2 inches.
       5. SWO: 0.372 inches.
       6. LWO: 0.938 inches.
       7. Strand Width: 0.087 inches.
       8. Strand and Overall Thickness: 0.06 inches.
       9. Overall Thickness: 0.183 inches.
       10. Open Area: 65 percent.
    6. Style: 1/2 inch - No. 13R.
       1. Thickness: 0.083 minimum.
       2. Nominal Weight: 141 lbs per sq ft.
       3. SWD: 0.5 inches.
       4. LWD: 1.2 inches.
       5. SWO: 0.337 inches.
       6. LWO: 0.938 inches.
       7. Strand Width: 0.096 inches.
       8. Strand Thickness: 0.09 inches.
       9. Overall Thickness: 0.212 inches.
       10. Open Area: 62 percent.
    7. Style: 3/4 inch - No. 16R.
       1. Thickness: 0.053 minimum.
       2. Nominal Weight: 54 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2 inches.
       5. SWO: 0.783 inches.
       6. LWO: 1.75 inches.
       7. Strand Width: 0.101 inches.
       8. Strand and Overall Thickness: 0.06 inches.
       9. Overall Thickness: 0.208 inches.
       10. Open Area: 78 percent.
    8. Style: 3/4 inch - No. 13R.
       1. Thickness: 0.083 minimum.
       2. Nominal Weight: 117 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2 inches.
       5. SWO: 0.718 inches.
       6. LWO: 1.625 inches.
       7. Strand Width: 0.144 inches.
       8. Strand Thickness: 0.092 inches.
       9. Overall Thickness: 0.3 inches.
       10. Open Area: 69 percent.
    9. Style: 3/4 inch - No. 10R.
       1. Thickness: 0.083 minimum.
       2. Nominal Weight: 117 lbs per sq ft.
       3. SWD: 0.923 inches.
       4. LWD: 2 inches.
       5. SWO: 0.718 inches.
       6. LWO: 1.625 inches.
       7. Strand Width: 0.144 inches.
       8. Strand Thickness: 0.092 inches.
       9. Overall Thickness: 0.3 inches.
       10. Open Area: 69 percent.
    10. Style: 3/4 inch - No. 9R.
        1. Thickness: 0.127 minimum.
        2. Nominal Weight: 178 lbs per sq ft.
        3. SWD: 0.923 inches.
        4. LWD: 2 inches.
        5. SWO: 0.675 inches.
        6. LWO: 1.562 inches.
        7. Strand Width: 0.15 inches.
        8. Strand Thickness: 0.134 inches.
        9. Overall Thickness: 0.329 inches.
        10. Open Area: 64 percent.
    11. Style: 1 inch - No. 16R.
        1. Thickness: 0.053 minimum.
        2. Nominal Weight: 43 lbs per sq ft.
        3. SWD: 1 inch.
        4. LWD: 2.4 inches.
        5. SWO: 0.872 inches.
        6. LWO: 2.062 inches.
        7. Strand Width: 0.087 inches.
        8. Strand Thickness: 0.06 inches.
        9. Overall Thickness: 0.183 inches.
        10. Open Area: 83 percent.
    12. Style: 1-1/2 inch - No. 18R.
        1. Thickness: 0.042 minimum.
        2. Nominal Weight: 20 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3 inches.
        5. SWO: 1.229 inches.
        6. LWO: 2.625 inches.
        7. Strand Width: 0.068 inches.
        8. Strand Thickness: 0.048 inches.
        9. Overall Thickness: 0.144 inches.
        10. Open Area: 90 percent.
    13. Style: 1-1/2 inch - No. 16R.
        1. Thickness: 0.053 minimum.
        2. Nominal Weight: 40 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3 inches.
        5. SWO: 1.184 inches.
        6. LWO: 2.625 inches.
        7. Strand Width: 0.108 inches.
        8. Strand and Overall Thickness: 0.06 inches.
        9. Overall Thickness: 0.221 inches.
        10. Open Area: 84 percent.
    14. Style: 1-1/2 inch - No. 13R.
        1. Thickness: 0.083 minimum.
        2. Nominal Weight: 58 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3 inches.
        5. SWO: 1.16 inches.
        6. LWO: 2.5 inches.
        7. Strand Width: 0.105 inches.
        8. Strand Thickness: 0.9 inches.
        9. Overall Thickness: 0.228 inches.
        10. Open Area: 84 percent.
    15. Style: 1-1/2 inch - No. 10R.
        1. Thickness: 0.083 minimum.
        2. Nominal Weight: 76 lbs per sq ft.
        3. SWD: 1.33 inches.
        4. LWD: 3 inches.
        5. SWO: 1.132 inches.
        6. LWO: 2.5 inches.
        7. Strand Width: 0.138 inches.
        8. Strand Thickness: 0.090 inches.
        9. Overall Thickness: 0.288 inches.
        10. Open Area: 79 percent.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. EXPANDED MESH

\*\* NOTE TO SPECIFIER \*\* Delete style options not required.

* + 1. Style: APEX01 Expanded Mesh:
       1. Max Portrait Panel Size: N/A.
       2. Max Landscape Panel Size: SWD: 59.5 inches. LWD: 120 inches.
       3. Aluminum Alloy: 5005.
       4. Visual Open: 46 percent.
       5. Mechanical Open: 73 percent.
       6. Weight: 0.98 lbs per sq ft.
       7. Short Way Diamond: 3.5 inches.
       8. Long Way Diamond: 8.0 inches.
       9. Strand Width: 0.93 inches.
       10. Strand Thickness: 0.125 inches.
    2. Style: APEX02 Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 143.38 inches. LWD: 48 inches.
       2. Max Landscape Panel Size: N/A.
       3. Aluminum Alloy: 5005.
       4. Visual Open: 40 percent.
       5. Mechanical Open: 72 percent.
       6. Weight: 1.09 lbs per sq ft.
       7. Short Way Diamond: 3.05 inches.
       8. Long Way Diamond: 8.0 inches.
       9. Strand Width: 0.93 inches.
       10. Strand Thickness: 0.125 inches.
    3. Style: APEX03 Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 145 inches. LWD: 48 inches.
       2. Max Landscape Panel Size: SWD: 60 inches. LWD: 132 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 26 percent.
      4. Mechanical Open: 62 percent.
      5. Weight: 1.34 lbs per sq ft.
      6. Short Way Diamond: 2.50 inches.
      7. Long Way Diamond: 6.0 inches.
      8. Strand Width: 0.93 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: APEX04 Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 60 inches.
       2. Max Landscape Panel Size: SWD: 60 inches. LWD: 120 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 18 percent.
      4. Mechanical Open: 37 percent.
      5. Weight: 1.48 lbs per sq ft.
      6. Short Way Diamond: 1.50 inches.
      7. Long Way Diamond: 4.0 inches.
      8. Strand Width: 0.62 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: APEX05 Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 138.69 inches. LWD: 48 inches.
       2. Max Landscape Panel Size: SWD: 58.29 inches. LWD: 120 inches.
       3. Aluminum Alloy: 5005.
       4. Visual Open: 10 percent.
       5. Mechanical Open: 22 percent.
       6. Weight: 1.59 lbs per sq ft.
       7. Short Way Diamond: 2.01 inches.
       8. Long Way Diamond: 4.0 inches.
       9. Strand Width: 0.93 inches.
       10. Strand Thickness: 0.125 inches.
    2. Style: Bellesa Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 48 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 36 percent.
      4. Mechanical Open: 59 percent.
      5. Weight: 0.74 lbs per sq ft.
      6. Short Way Diamond: 0.63 inches.
      7. Long Way Diamond: 1.20 inches.
      8. Strand Width: 0.21 inches.
      9. Strand Thickness: 0.081 inches.
    1. Style: Luxos Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 48 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 23 percent.
      4. Mechanical Open: 31 percent.
      5. Weight: 0.9 lbs per sq ft.
      6. Short Way Diamond: 0.40 inches.
      7. Long Way Diamond: 0.64 inches.
      8. Strand Width: 0.10 inches.
      9. Strand Thickness: 0.081 inches.
    1. Style: Gracia Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 48 inches.
       2. Max Landscape Panel Size: SWD: 59.63 inches. LWD: 120 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 52 percent.
      4. Mechanical Open: 73 percent.
      5. Weight: 0.85 lbs per sq ft.
      6. Short Way Diamond: 0.59 inches.
      7. Long Way Diamond: 4.0 inches.
      8. Strand Width: 0.14 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: De Moda Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 48 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 25 percent.
      4. Mechanical Open: 31 percent.
      5. Weight: 1.34 lbs per sq ft.
      6. Short Way Diamond: 0.38 inches.
      7. Long Way Diamond: 4.00 inches.
      8. Strand Width: 0.14 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: Cativar Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 120 inches. LWD: 48 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 55 percent.
      4. Mechanical Open: 74 percent.
      5. Weight: 0.81 lbs per sq ft.
      6. Short Way Diamond: 0.52 inches.
      7. Long Way Diamond: 5.33 inches.
      8. Strand Width: 0.12 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: Hinter Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 139.52 inches. LWD: 48 inches.
       2. Max Landscape Panel Size: SWD: 58.73 inches. LWD: 120 inches.
       3. Aluminum Alloy: 5005.
       4. Visual Open: 8 percent.
       5. Mechanical Open: 9 percent.
       6. Weight: 1.58 lbs per sq ft.
       7. Short Way Diamond: 2.18 inches.
       8. Long Way Diamond: 4.0 inches.
       9. Strand Width: 0.50 inches.
       10. Strand Thickness: 0.125 inches.
    2. Style: Siro Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 96.63 inches. LWD: 48 inches.

\*\* NOTE TO SPECIFIER \*\* Delete aluminum alloy options not required.

* + - 1. Aluminum Alloy: 3003.
      2. Aluminum Alloy: 5005.
      3. Visual Open: 25 percent.
      4. Mechanical Open: 45 percent.
      5. Weight:1.69 lbs per sq ft.
      6. Short Way Diamond: 1.38 inches.
      7. Long Way Diamond: 3.00 inches.
      8. Strand Width: 0.63 inches.
      9. Strand Thickness: 0.125 inches.
    1. Style: Modig Expanded Mesh:
       1. Max Portrait Panel Size: SWD: 138.45 inches. LWD: 48 inches.
       2. Aluminum Alloy: 5005.
       3. Visual Open: 6 percent.
       4. Mechanical Open: 28 percent.
       5. Weight:1.69 lbs per sq ft.
       6. Short Way Diamond: 2.13 inches.
       7. Long Way Diamond: 8.00 inches.
       8. Strand Width: 1.00 inches.
       9. Strand Thickness: 0.125 inches.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. Perforated metal is a simple process of using a press to punch holes out of a piece of metal. Here are 3 different variations to that manufacturing process that can influence your design.

* 1. PERFORATED METALS
     1. All-Across Perforation Manufacturing: All-across perforation can start with a coil of aluminum or sheets and go through a press with fixed dies that rapidly open and shut, punching the holes as they go.

\*\* NOTE TO SPECIFIER \*\* Delete pattern options not required.

* + 1. Patterns: Round holes.

\*\* NOTE TO SPECIFIER \*\* Delete open area options not required. Then delete panel styles options not required.

* + - 1. Open Area Perforation Pattern: 1 to 20 percent.
         1. Pattern Style: 3/16 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

3.19 percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1 inch Straight Centers.

1.00 Holes per sq inch.

4.91 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

7.56 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.866 inch Staggered Centers.

1.54 Holes per sq inch.

7.56 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

10.08 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 1/2 inch Straight Centers.

4.00 Holes per sq inch.

11.04 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

11.81 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

12.75 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 1/2 inch Staggered Centers.

4.62 Holes per sq inch.

12.75 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter .326 inch Staggered Centers.

10.87 Holes per sq inch.

13.33 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.650 inch Staggered Centers.

2.73 Holes per sq inch.

13.42 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 0.974 inch Staggered Centers.

1.22 Holes per sq inch.

13.44 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

15.74 Percent open area.

* + - * 1. Pattern Style: 5/16 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

15.74 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 1.191 inch Staggered Centers.

0.81 Holes per sq inch.

15.98 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

17.01 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.541 inch Staggered Centers.

3.95 Holes per sq inch.

19.37 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1/2 inch Straight Centers.

4.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 1/4 inch Straight Centers.

16.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Diameter 1.250 inch Straight Centers.

Pattern Style: 0.64 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 1 inch Straight Centers.

1.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 3/4 inch Straight Centers.

1.78 Holes per sq inch.

19.63 Percent open area.

* + - 1. Open Area Perforation Patterns: 21 to 40 percent.
         1. Pattern Style: 5/32 inch Diameter .326 inch Staggered Centers.

10.87 Holes per sq inch.

20.83 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1/2 inch Staggered Centers.

4.62 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 1/4 inch Staggered Centers.

18.48 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 0.8275 inch Diameter 1.5315 inch Staggered Centers.

0.49 Holes per sq inch.

26.48 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 7/32 inch Staggered Centers.

24.13 Holes per sq inch.

29.61 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 7/8 inch Staggered Centers.

1.51 Holes per sq inch.

29.61 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.25 inch Staggered Centers.

0.74 Holes per sq inch.

32.65 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 9/16 inch Straight Centers.

3.16 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 3/4 inch Straight Centers.

1.78 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.125 inch Straight Centers.

0.79 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 1 inch Diameter 1.5 inch Straight Centers.

0.44 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 1/4 inch Staggered Centers.

18.48 Holes per sq inch.

35.43 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

35.43 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 3/16 inch Staggered Centers.

32.84 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.125 inch Staggered Centers.

0.91 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 11 inch Diameter 1.5 inch Staggered Centers.

0.51 Holes per sq inch.

40.31 Percent open area.

* + - 1. Open Area Perforation Pattern: 41 to 69 percent.
         1. Pattern Style: 3/16 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

3.19 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1 inch Straight Centers.

1.00 Holes per sq inch.

4.91 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

7.56 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.866 inch Staggered Centers.

1.54 Holes per sq inch.

7.56 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

10.08 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 1/2 inch Straight Centers.

4.00 Holes per sq inch.

11.04 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

11.81 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

12.75 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 1/2 inch Staggered Centers.

4.62 Holes per sq inch.

12.75 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 0.326 inch Staggered Centers.

10.87 Holes per sq inch.

13.33 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.650 inch Staggered Centers.

2.73 Holes per sq inch.

13.42 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 0.974 inch Staggered Centers.

1.22 Holes per sq inch.

13.44 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

15.74 Percent open area.

* + - * 1. Pattern Style: 5/16 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

15.74 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 1.191 inch Staggered Centers.

0.81 Holes per sq inch.

15.98 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 0.433 inch Staggered Centers.

6.16 Holes per sq inch.

17.01 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 0.541 inch Staggered Centers.

3.95 Holes per sq inch.

19.37 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1/2 inch Straight Centers.

4.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 1/4 inch Straight Centers.

16.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Diameter 1.250 inch Straight Centers.

0.64 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 1 inch Straight Centers.

1.00 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 3/4 inch Straight Centers.

1.78 Holes per sq inch.

19.63 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 0.326 inch Staggered Centers.

10.87 Holes per sq inch.

20.83 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 1/2 inch Staggered Centers.

4.62 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 1/4 inch Staggered Centers.

18.48 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 0.8275 inch Diameter 1.5315 inch Staggered Centers.

0.49 Holes per sq inch.

26.48 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 7/32 inch Staggered Centers.

24.13 Holes per sq inch.

29.61 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 7/8 inch Staggered Centers.

1.51 Holes per sq inch.

29.61 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

22.67 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.25 inch Staggered Centers.

0.74 Holes per sq inch.

32.65 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 9/16 inch Straight Centers.

3.16 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 3/4 inch Straight Centers.

1.78 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.125 inch Straight Centers.

0.79 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 1 inch Diameter 1.5 inch Straight Centers.

0.44 Holes per sq inch.

34.91 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 1/4 inch Staggered Centers.

18.48 Holes per sq inch.

35.43 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

35.43 Percent open area.

* + - * 1. Pattern Style: 1/8 inch Diameter 3/16 inch Staggered Centers.

32.84 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 3/4 inch Staggered Centers.

2.05 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 3/8 inch Staggered Centers.

8.21 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1.125 inch Staggered Centers.

0.91 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 1 inch Diameter 1.5 inch Staggered Centers.

0.51 Holes per sq inch.

40.31 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 1/2 inch Straight Centers.

4.00 Holes per sq inch.

44.18 Percent open area.

* + - * 1. Pattern Style: 7/16 inch Diameter 5/8 inch Staggered Centers.

2.96 Holes per sq inch.

44.44 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 7/32 inch Staggered Centers.

24.13 Holes per sq inch.

46.27 Percent open area.

* + - * 1. Pattern Style: 5/16 inch Diameter 7/16 inch Staggered Centers.

6.03 Holes per sq inch.

46.27 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Diameter 7/8 inch Staggered Centers.

1.51 Holes per sq inch.

46.27 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 11/16 inch Staggered Centers.

2.44 Holes per sq inch.

47.97 Percent open area.

* + - * 1. Pattern Style: 1 inch Diameter 1.375 inch Staggered Centers.

0.61 Holes per sq inch.

47.97 Percent open area.

* + - * 1. Pattern Style: 0.140 inch Diameter 3/16 inch Staggered Centers.

32.84 Holes per sq inch.

50.56 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 1/4 inch Staggered Centers.

18.48 Holes per sq inch.

51.01 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Diameter 1/2 inch Staggered Centers.

4.62 Holes per sq inch.

51.01 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 1 inch Staggered Centers.

1.15 Holes per sq inch.

51.01 Percent open area.

* + - * 1. Pattern Style: 13/16 inch Diameter 1 inch Straight Centers.

1.00 Holes per sq inch.

51.85 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Diameter 5/16 inch Staggered Centers.

11.82 Holes per sq inch.

58.04 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Diameter 5/8 inch Staggered Centers.

2.96 Holes per sq inch.

58.04 Percent open area.

* + - * 1. Pattern Style: 1 inch Diameter 1.25 inch Staggered Centers.

0.74 Holes per sq inch.

58.04 Percent open area.

* + - * 1. Pattern Style: 0.140 inch Diameter 0.170 inch Staggered Centers.

39.96 Holes per sq inch.

61.51 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Diameter 3/16 inch Staggered Centers.

32.84 Holes per sq inch.

62.98 Percent open area.

* + - * 1. Pattern Style: 0.265 inch Diameter 5/16 inch Staggered Centers.

11.82 Holes per sq inch.

65.22 Percent open area.

* + - * 1. Pattern Style: 3/16 inch Diameter 7/32 inch Staggered Centers.

24.13 Holes per sq inch.

66.63 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Diameter 7/8 inch Staggered Centers.

1.51 Holes per sq inch.

66.63 Percent open area.

* + 1. Patterns: Square holes.

\*\* NOTE TO SPECIFIER \*\* Delete open area options not required. Then delete panel styles options not required.

* + - 1. Open Area Perforation Pattern: 1 to 20 percent.
         1. Pattern Style: 3/8 inch Square 1.125 inch Straight Centers.

0.79 Holes per sq inch.

11.11 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Square 0.640 inch Straight Centers.

2.44 Holes per sq inch.

15.26 Percent open area.

* + - * 1. Pattern Style: 0.200 inch Square 1/2 inch Straight Centers.

4.00 Holes per sq inch.

16.00 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Square 1 inch Staggered Centers.

1.15 Holes per sq inch.

16.24 Percent open area.

* + - 1. Open Area Perforation Pattern: 21 to 40 percent.
         1. Pattern Style: 1/4 inch Square 1/2 inch Straight Centers.

4.00 Holes per sq inch.

25.00 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Square 7/16 inch Straight Centers.

5.22 Holes per sq inch.

32.65 Percent open area.

* + - * 1. Pattern Style: 0.75 inch Square 1.25 inch Straight Centers.

0.64 Holes per sq inch.

36.00 Percent open area.

* + - * 1. Pattern Style: 1 inch Square 1.594 inch Straight Centers.

0.39 Holes per sq inch.

39.36 Percent open area.

* + - * 1. Pattern Style: 1 inch Square 1.25 inch Straight Centers.

0.64 Holes per sq inch.

64.00 Percent open area.

* + - 1. Open Area Perforation Pattern: 41 to 73 percent.
         1. Pattern Style: 1/4 inch Square 3/8 inch Straight Centers.

7.11 Holes per sq inch.

44.44 Percent open area.

* + - * 1. Pattern Style: 5/32 inch Square 0.231 inch Straight Centers.

18.74 Holes per sq inch.

45.75 Percent open area.

* + - * 1. Pattern Style: 5/16 inch Square 7/16 inch Straight Centers.

5.22 Holes per sq inch.

51.02 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Square 7/8 inch Straight Centers.

1.31 Holes per sq inch.

51.02 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Square 3/4 inch Straight Centers.

1.78 Holes per sq inch.

44.44 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Square 1.125 inch Staggered Centers.

0.91 Holes per sq inch.

51.32 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Square 11/16 inch Straight Centers.

2.12 Holes per sq inch.

52.89 Percent open area.

* + - * 1. Pattern Style: 0.240 inch Square 0.330 inch Straight Centers.

9.18 Holes per sq inch.

52.89 Percent open area.

* + - * 1. Pattern Style: 0.225 inch Square 0.305 inch Straight Centers.

10.75 Holes per sq inch.

54.42 Percent open area.

* + - * 1. Pattern Style: 0.433 inch Square 0.583 inch Straight Centers.

2.94 Holes per sq inch.

55.16 Percent open area.

* + - * 1. Pattern Style: 0.265 inch Square 0.355 inch Straight Centers.

7.93 Holes per sq inch.

55.72 Percent open area.

* + - * 1. Pattern Style: 3/8 inch Square 1/2 inch Straight Centers.

4.00 Holes per sq inch.

56.25 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Square 1 inch Straight Centers.

1.00 Holes per sq inch.

56.25 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Square 0.330 inch Straight Centers.

9.18 Holes per sq inch.

57.39 Percent open area.

* + - * 1. Pattern Style: 0.476 inch Square 0.626 inch Straight Centers.

2.55 Holes per sq inch.

57.82 Percent open area.

* + - * 1. Pattern Style: 5/8 inch Square 13/16 inch Straight Centers.

1.51 Holes per sq inch.

59.17 Percent open area.

* + - * 1. Pattern Style: 0.200 inch Square 1/4 inch Straight Centers.

16.00 Holes per sq inch.

64.00 Percent open area.

* + - * 1. Pattern Style: 1/4 inch Square 5/16 inch Straight Centers.

10.24 Holes per sq inch.

64.00 Percent open area.

* + - * 1. Pattern Style: 1/2 inch Square 5/8 inch Straight Centers.

2.56 Holes per sq inch.

64.00 Percent open area.

* + - * 1. Pattern Style: 3/4 inch Square 15/16 inch Straight Centers.

1.14 Holes per sq inch.

64.00 Percent open area.

* + - * 1. Pattern Style: 1 inch Square 1.25 inch Staggered Centers.

0.74 Holes per sq inch.

73.90 Percent open area.

* + - * 1. Pattern Style: 1 inch Square 1.156 inch Straight Centers.

0.75 Holes per sq inch.

74.83 Percent open area.

* + 1. Patterns: Slot Holes.

\*\* NOTE TO SPECIFIER \*\* Delete open area options not required. Then delete panel styles options not required.

* + - 1. Open Area Perforation Pattern: 20 to 40 percent.
         1. Pattern Style: 0.125 inch X 0.625 inch Round End Slot with 0.219 inch Side Bars and 0.219 inch End Bars, End Staggered.

3.44 Holes per sq inch.

25.75 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.625 inch Round End Slot with 0.213 inch Side Bars and 0.213 inch End Bars, Side Staggered.

3.53 Holes per sq inch.

26.40 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.625 inch Round End Slot with 0.213 inch Side Bars and 0.213 inch End Bars, Straight Centers.

3.53 Holes per sq inch.

26.40 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 2 inch Round End Slot with 0.375 inch Side Bars and 0.375 inch End Bars, Straight Centers.

0.75 Holes per sq inch.

27.51 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 2 inch Round End Slot with 0.375 inch Side Bars and 0.375 inch End Bars, Side Staggered.

0.75 Holes per sq inch.

27.51 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 2 inch Round End Slot with 0.375 inch Side Bars and 0.375 inch End Bars, End Staggered.

0.75 Holes per sq inch.

27.51 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.25 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

10.67 Holes per sq inch.

29.76 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.25 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

10.67 Holes per sq inch.

29.76 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.25 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

10.67 Holes per sq inch.

29.76 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Straight Centers.

3.41 Holes per sq inch.

30.79 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Side Staggered.

3.41 Holes per sq inch.

30.79 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

3.41 Holes per sq inch.

30.79 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.83 Holes per sq inch.

32.91 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

1.83 Holes per sq inch.

32.91 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

1.83 Holes per sq inch.

32.91 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

2.00 Holes per sq inch.

34.82 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

2.00 Holes per sq inch.

34.82 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

2.00 Holes per sq inch.

34.82 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.5 inch Round End Slot with 0.5 inch Side Bars and 0.5 inch End Bars, Side Staggered.

0.50 Holes per sq inch.

34.82 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.5 inch Round End Slot with 0.5 inch Side Bars and 0.5 inch End Bars, Straight Centers.

0.50 Holes per sq inch.

34.82 Percent open area.

* + - * 1. Pattern Style: 0.2 inch X 1.5 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.27 Holes per sq inch.

37.01 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Round End Slot with 0.156 inch Side Bars and 0.156 inch End Bars, End Staggered.

3.08 Holes per sq inch.

37.45 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 0.875 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Side Staggered.

1.47 Holes per sq inch.

37.81 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 0.875 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Straight Centers.

1.47 Holes per sq inch.

37.81 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.5 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

6.40 Holes per sq inch.

37.85 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.5 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

6.40 Holes per sq inch.

37.85 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.5 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

6.40 Holes per sq inch.

37.85 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

1.78 Holes per sq inch.

37.94 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

1.78 Holes per sq inch.

37.94 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 0.75 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.78 Holes per sq inch.

37.94 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1 inch Round End Slot with 0.273 inch Side Bars and 0.273 inch End Bars, End Staggered.

1.32 Holes per sq inch.

39.48 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Straight Centers.

1.32 Holes per sq inch.

39.38 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Side Staggered.

1.32 Holes per sq inch.

39.38 Percent open area.

* + - * 1. Pattern Style: 0.15625 inch X 0.75 inch Round End Slot with 0.156 inch Side Bars and 0.156 inch End Bars, Side Staggered.

3.53 Holes per sq inch.

39.57 Percent open area.

* + - * 1. Pattern Style: 0.15625 inch X 0.75 inch Round End Slot with 0.156 inch Side Bars and 0.156 inch End Bars, Straight Centers.

3.53 Holes per sq inch.

39.57 Percent open area.

* + - * 1. Pattern Style: 0.15625 inch X 0.75 inch Round End Slot with 0.156 inch Side Bars and 0.156 inch End Bars, End Staggered.

3.53 Holes per sq inch.

39.57 Percent open area.

* + - * 1. Pattern Style: 0.9375 inch X 2 inch Round End Slot with 0.657 inch Side Bars and 0.657 inch End Bars, Side Staggered.

0.24 Holes per sq inch.

39.81 Percent open area.

* + - * 1. Pattern Style: 0.9375 inch X 2 inch Round End Slot with 0.657 inch Side Bars and 0.657 inch End Bars, Straight Centers.

0.24 Holes per sq inch.

39.81 Percent open area.

* + - * 1. Pattern Style: 0.2 inch X 1 inch Round End Slot with 0.2 inch Side Bars and 0.2 inch End Bars, End Staggered.

2.08 Holes per sq inch.

39.88 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Straight Centers.

2.24 Holes per sq inch.

40.34 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Side Staggered.

2.24 Holes per sq inch.

40.34 Percent open area.

* + - * 1. Pattern Style: 0.1875 inch X 1 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

2.24 Holes per sq inch.

40.34 Percent open area.

* + - * 1. Pattern Style: 0.375 inch X 2 inch Round End Slot with 0.375 inch Side Bars and 0.375 inch End Bars, End Staggered.

0.56 Holes per sq inch.

40.41 Percent open area.

* + - * 1. Pattern Style: 0.2 inch X 1 inch Round End Slot with 0.195 inch Side Bars and 0.195 inch End Bars, Side Staggered.

2.12 Holes per sq inch.

40.55 Percent open area.

* + - * 1. Pattern Style: 0.2 inch X 1 inch Round End Slot with 0.195 inch Side Bars and 0.195 inch End Bars, Straight Centers.

2.12 Holes per sq inch.

40.55 Percent open area.

* + - 1. Open Area Perforation Pattern: 41 to 50 percent.
         1. Pattern Style: 0.32 inch X 0.9375 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.48 Holes per sq inch.

41.07 Percent open area.

* + - * 1. Pattern Style: 0.2 inch X 1 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

2.17 Holes per sq inch.

41.53 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

4.57 Holes per sq inch.

41.32 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

4.57 Holes per sq inch.

41.32 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 0.75 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

4.57 Holes per sq inch.

41.32 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

3.56 Holes per sq inch.

43.25 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

3.56 Holes per sq inch.

43.25 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

3.56 Holes per sq inch.

43.25 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1.525 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Side Staggered.

0.94 Holes per sq inch.

43.61 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1.525 inch Round End Slot with 0.274 inch Side Bars and 0.274 inch End Bars, Straight Centers.

0.94 Holes per sq inch.

43.61 Percent open area.

* + - * 1. Pattern Style: 0.32 inch X 1.525 inch Round End Slot with 0.273 inch Side Bars and 0.273 inch End Bars, End Staggered.

0.94 Holes per sq inch.

43.71 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 4 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

0.47 Holes per sq inch.

46.43 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 4 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

0.47 Holes per sq inch.

46.43 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Round End Slot with 0.326 inch Side Bars and 0.326 inch End Bars, Side Staggered.

0.62 Holes per sq inch.

47.09 Percent open area.

* + - * 1. Pattern Style: 0.375 inch X 1.5 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

0.91 Holes per sq inch.

48.67 Percent open area.

* + - * 1. Pattern Style: 0.375 inch X 1.5 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

0.91 Holes per sq inch.

48.67 Percent open area.

* + - * 1. Pattern Style: 0.375 inch X 1.5 inch Round End Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

0.91 Holes per sq inch.

48.67 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Straight Centers.

1.35 Holes per sq inch.

48.91 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Side Staggered.

1.35 Holes per sq inch.

48.91 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

1.35 Holes per sq inch.

48.91 Percent open area.

* + - 1. Open Area Perforation Pattern: 51 to 70 percent.
         1. Pattern Style: 0.125 inch X 1.5 inch Round End Slot with 0.094 inch Side Bars and 0.094 inch End Bars, Side Staggered.

2.86 Holes per sq inch.

52.75 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

2.37 Holes per sq inch.

56.08 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1 inch Round End Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

2.37 Holes per sq inch.

56.08 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Round End Slot with 0.094 inch Side Bars and 0.094 inch End Bars, Straight Centers.

1.82 Holes per sq inch.

65.94 Percent open area.

* + - * 1. Pattern Style: 0.9375 inch X 2 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Straight Centers.

0.41 Holes per sq inch.

68.48 Percent open area.

* + - * 1. Pattern Style: 0.9375 inch X 2 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Side Staggered.

0.41 Holes per sq inch.

68.48 Percent open area.

* + - * 1. Pattern Style: 0.9375 inch X 2 inch Round End Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

0.41 Holes per sq inch.

68.48 Percent open area.

* + 1. Patterns: Rectangular Holes.

\*\* NOTE TO SPECIFIER \*\* Delete open area options not required. Then delete panel styles options not required.

* + - 1. Open Area Perforation Pattern: 20 to 45 percent.
         1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

2.13 Holes per sq inch.

26.67 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

2.69 Holes per sq inch.

33.62 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Side Staggered.

2.69 Holes per sq inch.

33.62 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.188 inch Side Bars and 0.188 inch End Bars, Straight Centers.

2.69 Holes per sq inch.

33.62 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.313 inch Side Bars and 0.313 inch End Bars, Straight Centers.

0.98 Holes per sq inch.

36.74 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.313 inch Side Bars and 0.313 inch End Bars, Side Staggered.

0.98 Holes per sq inch.

36.74 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.156 inch Side Bars and 0.156 inch End Bars, Straight Centers.

3.08 Holes per sq inch.

38.48 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.156 inch Side Bars and 0.156 inch End Bars, Side Staggered.

3.08 Holes per sq inch.

38.48 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.156 inch Side Bars and 0.156 inch End Bars, End Staggered.

3.08 Holes per sq inch.

38.48 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.14 Holes per sq inch.

42.86 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

1.14 Holes per sq inch.

42.86 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

1.14 Holes per sq inch.

42.86 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

3.56 Holes per sq inch.

44.44 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

3.56 Holes per sq inch.

44.44 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.063 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

3.37 Holes per sq inch.

44.74 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.063 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

3.37 Holes per sq inch.

44.74 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.063 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

3.37 Holes per sq inch.

44.74 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.25 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

2.91 Holes per sq inch.

45.45 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.25 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

2.91 Holes per sq inch.

45.45 Percent open area.

* + - * 1. Pattern Style: 0.125 inch X 1.25 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

2.91 Holes per sq inch.

45.45 Percent open area.

* + - 1. Open Area Perforation Pattern: 46 to 55 percent.
         1. Pattern Style: 0.3125 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

1.02 Holes per sq inch.

47.62 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

1.02 Holes per sq inch.

47.62 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 1.5 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

1.02 Holes per sq inch.

47.62 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 1.625 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Straight Centers.

0.95 Holes per sq inch.

48.15 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 1.625 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, End Staggered.

0.95 Holes per sq inch.

48.15 Percent open area.

* + - * 1. Pattern Style: 0.3125 inch X 1.625 inch Rectangular Slot with 0.25 inch Side Bars and 0.25 inch End Bars, Side Staggered.

0.95 Holes per sq inch.

48.15 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.326 inch Side Bars and 0.326 inch End Bars, Straight Centers.

0.62 Holes per sq inch.

50.42 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.326 inch Side Bars and 0.326 inch End Bars, Side Staggered.

0.62 Holes per sq inch.

50.42 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.326 inch Side Bars and 0.326 inch End Bars, End Staggered.

0.62 Holes per sq inch.

50.42 Percent open area.

* + - * 1. Pattern Style: 0.155 inch X 0.363 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, End Staggered.

9.01 Holes per sq inch.

50.70 Percent open area.

* + - * 1. Pattern Style: 0.155 inch X 0.363 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, Side Staggered.

9.01 Holes per sq inch.

50.70 Percent open area.

* + - * 1. Pattern Style: 0.155 inch X 0.363 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, Straight Centers.

9.01 Holes per sq inch.

50.70 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.188 inch Side Bars and 0.188 inch End Bars, End Staggered.

1.35 Holes per sq inch.

50.72 Percent open area.

* + - * 1. Pattern Style: 0.15625 inch X 0.5625 inch Rectangular Slot with 0.1 inch Side Bars and 0.1 inch End Bars, Side Staggered.

5.89 Holes per sq inch.

51.77 Percent open area.

* + - * 1. Pattern Style: 0.15625 inch X 0.5625 inch Rectangular Slot with 0.1 inch Side Bars and 0.1 inch End Bars, End Staggered.

5.89 Holes per sq inch.

51.77 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.281 inch Side Bars and 0.281 inch End Bars, End Staggered.

0.67 Holes per sq inch.

54.58 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.281 inch Side Bars and 0.281 inch End Bars, Side Staggered.

0.67 Holes per sq inch.

54.58 Percent open area.

* + - * 1. Pattern Style: 0.5 inch X 1.625 inch Rectangular Slot with 0.281 inch Side Bars and 0.281 inch End Bars, Straight Centers.

0.67 Holes per sq inch.

54.58 Percent open area.

* + - * 1. Pattern Style: 0.346 inch X 0.541 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, End Staggered.

2.92 Holes per sq inch.

54.62 Percent open area.

* + - * 1. Pattern Style: 0.346 inch X 0.541 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, Side Staggered.

2.92 Holes per sq inch.

54.62 Percent open area.

* + - 1. Open Area Perforation Pattern: 56 to 70 percent.
         1. Pattern Style: 0.346 inch X 0.541 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, Straight Centers.

2.92 Holes per sq inch.

54.62 Percent open area.

* + - * 1. Pattern Style: 0.8275 inch X 1.5315 inch Rectangular Slot with 0.36 inch Side Bars and 0.36 inch End Bars, End Staggered.

0.45 Holes per sq inch.

56.42 Percent open area.

* + - * 1. Pattern Style: 0.8275 inch X 1.5315 inch Rectangular Slot with 0.36 inch Side Bars and 0.36 inch End Bars, Side Staggered.

0.45 Holes per sq inch.

56.42 Percent open area.

* + - * 1. Pattern Style: 0.355 inch X 0.62 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, Straight Centers.

2.57 Holes per sq inch.

56.60 Percent open area.

* + - * 1. Pattern Style: 0.355 inch X 0.62 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, End Staggered.

2.57 Holes per sq inch.

56.60 Percent open area.

* + - * 1. Pattern Style: 0.27 inch X 0.433 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, End Staggered.

5.31 Holes per sq inch.

62.09 Percent open area.

* + - * 1. Pattern Style: 0.27 inch X 0.4375 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, Side Staggered.

5.27 Holes per sq inch.

62.20 Percent open area.

* + - * 1. Pattern Style: 0.27 inch X 0.4375 inch Rectangular Slot with 0.09 inch Side Bars and 0.09 inch End Bars, Straight Centers.

5.27 Holes per sq inch.

62.20 Percent open area.

* + - * 1. Pattern Style: 0.28125 inch X 1.437 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Straight Centers.

1.58 Holes per sq inch.

63.69 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.094 inch Side Bars and 0.094 inch End Bars, Straight Centers.

1.82 Holes per sq inch.

68.39 Percent open area.

* + - * 1. Pattern Style: 0.28125 inch X 1.437 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, End Staggered.

1.58 Holes per sq inch.

63.69 Percent open area.

* + - * 1. Pattern Style: 0.28125 inch X 1.4375 inch Rectangular Slot with 0.125 inch Side Bars and 0.125 inch End Bars, Side Staggered.

1.58 Holes per sq inch.

63.69 Percent open area.

* + - * 1. Pattern Style: 0.355 inch X 0.62 inch Rectangular Slot with 0.15 inch Side Bars and 0.15 inch End Bars, Side Staggered.

2.57 Holes per sq inch.

56.60 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.094 inch Side Bars and 0.094 inch End Bars, Side Staggered.

1.82 Holes per sq inch.

68.39 Percent open area.

* + - * 1. Pattern Style: 0.25 inch X 1.5 inch Rectangular Slot with 0.093 inch Side Bars and 0.093 inch End Bars, End Staggered.

1.83 Holes per sq inch.

68.63 Percent open area.

\*\* NOTE TO SPECIFIER \*\* Delete Turret Press Custom Perforation if not required. Turret Press perforation uses a press with a moving bed and a library of dies it can select for punch and dimple surfaces. The equipment can take in design files and place holes to create unique textures and patterns.

* + 1. Turret Press, Custom Perforation Manufacturing:
       1. Design File Type: \_\_\_\_\_\_\_\_.
       2. Material: \_\_\_\_\_\_\_\_.
       3. Texture: As determined by the Architect.
       4. Dimpling: As determined by the Architect.
       5. Panel Dimensions (LxW): \_\_\_ x \_\_\_ inches.

\*\* NOTE TO SPECIFIER \*\* Delete Picture PERFect Perforated option if not required. Picture PERFect is a proprietary process where AMICO can take any photo, graphic, or texture and convert it to a perforated metal pattern. This is a cost-effective way to introduce unique and durable design communications into an environment.

* + 1. Picture PERFect Perforated Manufacturing:
       1. Design File Type: \_\_\_\_\_\_\_\_.
       2. Material: \_\_\_\_\_\_\_\_.
       3. Texture: As determined by the Architect.
       4. Dimpling: As determined by the Architect.
       5. Panel Dimensions (LxW): \_\_\_ x \_\_\_ inches.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required. You can design your own panel pattern, use a standard pattern from AMICO (below), or work with AMICO to develop a custom pattern.

* 1. LASER CUT ARCHITECTURAL METALS
     1. Laser Cut Architectural Metals: Laser-cutting manufacturing to create custom hole designs on flat metal panels without specialized tools.
        1. Design Recommendations: Plan minimum openings of at least 3/4 inches and the distance between openings is to be at least 2x the thickness of the material.
        2. Material: \_\_\_\_\_\_\_\_.
        3. Panel Dimensions (LxW): \_\_\_ x \_\_\_ inches.
        4. Pre-Designed Pattern.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. PLANK GRATING
     1. Plank Grating: Punched metal surface formed on its long sides, creating a board like form.
        1. Plank Type: Diamond grip.
        2. Plank Type: Safety grip.
        3. Plank Width: \_\_\_\_\_\_\_\_.
        4. Plank Length: \_\_\_\_\_\_\_\_\_.
        5. Plank Depth: \_\_\_\_\_\_\_\_.
        6. Material: \_\_\_\_\_\_\_\_\_.
        7. Mounting: Direct or offset from a facade.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. FRP ARCHITECTURAL PANELS
     1. FRP Architectural Panels: Fiberglass-reinforced plastic.
        1. FRP Material: Manufactured by interweaving and molding fiberglass with thermoset resin and UV inhibitors. Panels are fabricated to design-spec and are ready to install on the job site.

\*\* NOTE TO SPECIFIER \*\* Delete panel options not required.

* + - 1. FRP Architectural Panels: SQ-115:
         1. Grid Size: 1.5 x 1.5 inch.
         2. Open Area: 70 percent.
         3. Thickness: 1 inch.

\*\* NOTE TO SPECIFIER \*\* Delete max panel size not required.

* + - * 1. Max Panel Size: 3 x 10 ft.
        2. Max Panel Size: 4 x 12 ft.
        3. Approx. Weight: 2.98 lbs per sq ft.
      1. FRP Architectural Panels: SQ-1515:
         1. Grid Size: 1.5 x 1.5 inch.
         2. Open Area: 70 percent.
         3. Thickness: 1.5 inch.

\*\* NOTE TO SPECIFIER \*\* Delete max panel size not required.

* + - * 1. Max Panel Size: 3 x 10 ft.
        2. Max Panel Size: 4 x 12 ft.
        3. Max Panel Size: 5 x 10 ft.
        4. Approx. Weight: 4.08 lbs per sq ft.
      1. FRP Architectural Panels: SQ-22:
         1. Grid Size: 2 x 2 inches.
         2. Open Area: 72 percent.
         3. Thickness: 2 inches.
         4. Max Panel Size: 4 x 12 ft.
         5. Approx. Weight: 4.27 lbs per sq ft.
      2. FRP Architectural Panels: REC-1114:
         1. Grid Size: 1 x 4 inches.
         2. Open Area: 60 percent.
         3. Thickness: 1 inch.
         4. Max Panel Size: 4 x 12 ft.
         5. Approx. Weight: 3.54 lbs per sq ft.
      3. FRP Architectural Panels: REC-1516:
         1. Grid Size: 1 x 6 inches.
         2. Open Area: 63 percent.
         3. Thickness: 1.5 inch.
         4. Max Panel Size: 4 x 12 ft.
         5. Approx. Weight: 4.5 lbs per sq ft.
  1. FABRICATION
     1. Panels produced by the Manufacturer will be in alignment with shop drawings and the Manufacturer's tolerances limitations.
     2. Panel Layouts: To be designed with a 1/8 inch gap between panels to allow for expansion.
        1. Drawings Supplied by the Manufacturer: Will guide the layout of panel spacing and attachment bracket layout.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until the substrates have been properly constructed and prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
         1. Correct any conditions that may impede proper completion of work.
         2. The substructures must be plum and true, and capable of supporting the products without deflection or deformation.
      3. Anchor attachment points should be examined to ensure the surfaces are clean and clear of obstacles and finished.
         1. Attachment Brackets: To have slots allowing installation adjustments with 1/8 inch of play. When panels are attached, they can be subsequently adjusted within that range.
      4. Ensure there is enough clearance in the surrounding area to allow installers and materials to be lifted into place.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
         1. Suitable fasteners for attachment brackets are the responsibility of the contractor.
         2. Panels should be installed plum and level as per shop drawings.
         3. Panel Joints: To have 1/8 inch gap designed into their placement plus or minus 1/16 inches.
   4. CLEANING AND PROTECTION
      1. Clean products in accordance with the manufacturer's recommendations.
         1. Maintain installed panels in a clean condition throughout construction and ensure that cleaning by other trades in proximity to the panels does not impart dust or debris. Avoid spilling, dripping, or splattering cleaning solutions onto panel surfaces.
         2. Clean exposed surfaces of panels promptly after completion of installation. Comply with the recommendation of the panel manufacturer.
            1. AAMA 609 and 610.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION