




Inspired By Steel..



UIMS[®]

Universal Metal Syndicate

A dark gray vertical bar on the left side of the page, extending from the top to the bottom, serving as a design element.

UNIVERSAL METAL SYNDICATE offers precision artistry in laser cutting, serving the hospitality, retail, healthcare, commercial and residential markets.

Three years ago, Universal Metal Syndicate released our first line of laser-cut metal wall art. These products were released after an intensive, six-month research effort to develop the techniques and expertise necessary for high-quality, decorative cutting of metal. As it turns out, it's not easy to laser-cut metal at the quality levels expected by our customers.

Since then, we have tried to advance the art and technology of decorative laser cutting every year. Over the years, we have added increased material thicknesses, increased panel sizes, and a variety of new materials and artworks. We offer an assortment of materials and finishes that can be used in an array of products, such as wall partitions, light boxes and ceiling panels. This catalog, and our on-line gallery, illustrate the variety of amazing interior and exterior spaces that have been created using our products.

We understand that our customers—design professionals such as interior designers and architects—have a tough job. Their clients expect them to create something transformative and wonderful, while staying on schedule and budget. Lightwave Laser's job is to provide design professionals with product choices that meet their practical needs as well as aesthetic vision. The majority of our clients choose stock materials and patterns, custom-sized to the specific installation. In addition to our design and technical expertise, we pride ourselves on customer service: one internal project manager providing support from initial questions through finished project.

Universal Metal
Syndicate continues to
move forward as a
leader in decorative
laser cutting.



Wall partitions

Installed wall partitions bring together art and function. They can be used to divide large spaces, add interest and light to dark spaces, or screen in a booth or small area, while adding a unique and beautiful look. For areas greater than 2' wide, partitions should be framed in, and for high traffic areas, a $\frac{3}{4}$ " thickness is recommended for durability. Partitions can also be back-lit to add a dramatic look to your hotel, restaurant, or office environment.



Wall partitions

Wall partitions are our most popular application. Wall partitions help define the space, while allowing light and visibility from other areas. The photos on the opposite page show typical uses. For residential and some hotel projects, a wall partition can be used to divide an entry area from the rest of the room. The entry area is both separate and connected.

For restaurants, wall partitions are commonly used to define the dining area from other areas such as a hallway, bar or kitchen. The wall partitions add a decorative focal point and separation from other parts of the restaurant.

To add more interest, a wall partition can be made of two panels separated by four or more inches. Lighting can be incorporated in the top or bottom between the panels, giving the wall partition a feeling of motion as you walk by. The two separated panels change appearance as the guest walks past the wallpartition.



Back Lit

Light boxes can be used in a wide variety of applications and create a dramatic focal point for your space. We manufacture custom light boxes designed to your specifications, sized up to 4' x 8' and made of wood or metal. Each light box comes hardwired, ready for installation by your electrician, or you can opt for a standard power cord.

Typical light boxes sit 4" deep from the wall and give off virtually no heat, so they can be fully enclosed. They include white, low voltage LED lights, frosted light-diffusing acrylic panels, and a transformer with a dimmer. To mount your light box, a back panel made of MDF attaches to the wall. Thumbscrews or flathead screws are used to attach the light box to the back panel. Most light boxes are made of ½" thick wood. They can be wall- or ceiling-mounted, depending on your desired use. LEDs can come in a range of colors and a remote-control option is available.

Electrical codes vary by location, so please consult with your local electrician for installation and wiring needs. Custom light boxes larger than 4' X 8' can be made if desired, contact our customer service representative about your project specifications.



Back Lit

Back-lit panels are an easy way to make any space more dramatic. Lighting with a laser-cut decorative panel helps set the feel for the room. As is shown on the opposite page, back-lit panels can be used on ceilings, above beds, behind reception desks, behind bars, or as signage indoors or outdoors. For larger installations, many different back-lit panels can be wired together so that they are all controlled by one dimmer. In addition to warm white LED's, our back-lit panels use color-changing LED's. These can be programmed to stay one color, or slowly transition through a variety of selected colors. Back lit panels can be constructed in a variety of different ways to meet your particular design requirements.



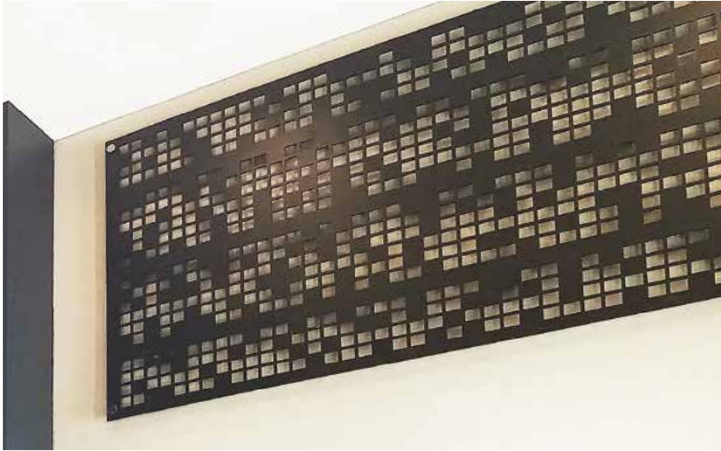
Ceiling & Skylights

Ceiling panels can be a relatively inexpensive way to enhance a look and add dimension to your design. Often back-lit with LED lighting, these panels are available in 1/4" or 1/2" wood and can be made of fire-rated material. Our team can advise you on the best pattern choices to create your desired ambiance and help with sizing and construction considerations. Ceiling panels are a fantastic addition to restaurant bars, hotel lobbies, and private bathrooms or spas.



Ceiling & Skylights

Laser-cut ceiling and skylight coverings have been gaining popularity in the hospitality and design industry, and it's easy to see why. The applications are endless when you consider combinations of pattern, color, size, placement and lighting. As you can see from the photos here, a laser-cut panel adds interest and texture, whether it is back lit, used as a valance, wood stained, or painted. These eye-popping panels will be a focal point, or create a desired ambiance – your choice!



Window Coverings

Laser-cut panels in windows or doors add privacy and reduce direct sunlight exposure, while remaining decorative and adding a unique element to your space. The shadow cast by your pattern creates a subtle visual interest that changes throughout the day. Window inserts are installed by either attaching the panel to a strip of wood or installed using Velcro for easy removal and window cleaning. Sun exposure and moisture considerations are important factors when choosing your material and pattern.



Window Coverings

Window coverings can be the most dramatic application for our laser-cut panels because the quality and intensity of light coming through the openings changes as the hours pass. The choice and scale of pattern will add to the drama and enhance the existing atmosphere of design.



Room Dividers & Floor Screens

Dividing up a large space does not mean sacrificing beauty. Floor screens are an attractive and versatile way of creating privacy or setting distinct locations in a large area. They can also be used to cover a less desirable room feature with a magnificent piece of functional art. Typically, our floor screens are 3/4" and can be hinged to stand alone. Your contractor can frame in the screen panels if thicker wood is desired.



Stairways & Deck Railings

Another unique design feature is to use our panels for deck or stairway railings which can be enclosed in a beautiful pattern that provides both safety and privacy, while still letting in light. By using a plywood core for added strength, we can help you choose patterns that meet code restrictions on opening size and function. Not all patterns are suitable, but we can help you choose the right look for your project.

For projects which require added strength and safety, acrylic or polycarbonate can be added behind the laser-cut panel. This eliminates any potential problem with opening sizes in the artwork, and adds increased impact resistance and strength. We can provide you with photos of staircase railings constructed with this method.



Cabinetry

Incorporating laser-cut panels into your cabinetry or furniture design is an easy way to add a unique feel. Patterns can be custom made to match other elements on your project, or you can use one of our patterns to enhance your look. The ¼" laser-cut panel can be attached directly to your cabinet door as a decorative element, or for a more open look, your contractor can frame it in to your project on its own or in front of glass. Panels can also be back-lit with LED lights. Our furniture and cabinetry are frequently used in private residences, in corporate work environments, and hotels.



Cabinetry

Many cabinet-makers prefer to order their panels unfinished, to be able to finish the entire cabinet at once. We also work with a number of furniture-makers who are thrilled with the number of pattern choices and flexibility of wood veneer options and wood thicknesses.



Return Air Grills & Radiator Covers

Our laser-cut panels are meant to cover function with beauty. Laser-cut air-return grills or radiator panels provide the open space needed for proper air circulation, and also enhance the environment. Wood is usually 1/4" or 1/2" in thickness. Check with your HVAC specialist, but patterns usually need to provide a 50 - 70% open area.



Decorative

All of our panels are decorative, though sometimes a particular decorative element shines. Intricate and detailed patterns cut in metal or wood will create an eye-catching focus for your overall space. Select a pattern that will accentuate your existing decor, choose a wood finish that complements your flooring or trim, or go with a trendy powder-coated color on a metal panel to match your color scheme. Panels can attach to a wall, create an entire wall, or be made to fit into a decorative grouping. Your imagination is the only limitation.



Decorative

The variety of ways a panel can be decorative is endless, but several are illustrated in these photos. The back lit panel was provided to our client in unfinished wood so the entire cabinet could be stained together. And what a nice touch to provide the lovely texture behind the painted cabinet shelving. In the orange living room, the simple addition of a traditional geometric pattern ties the whole room together.



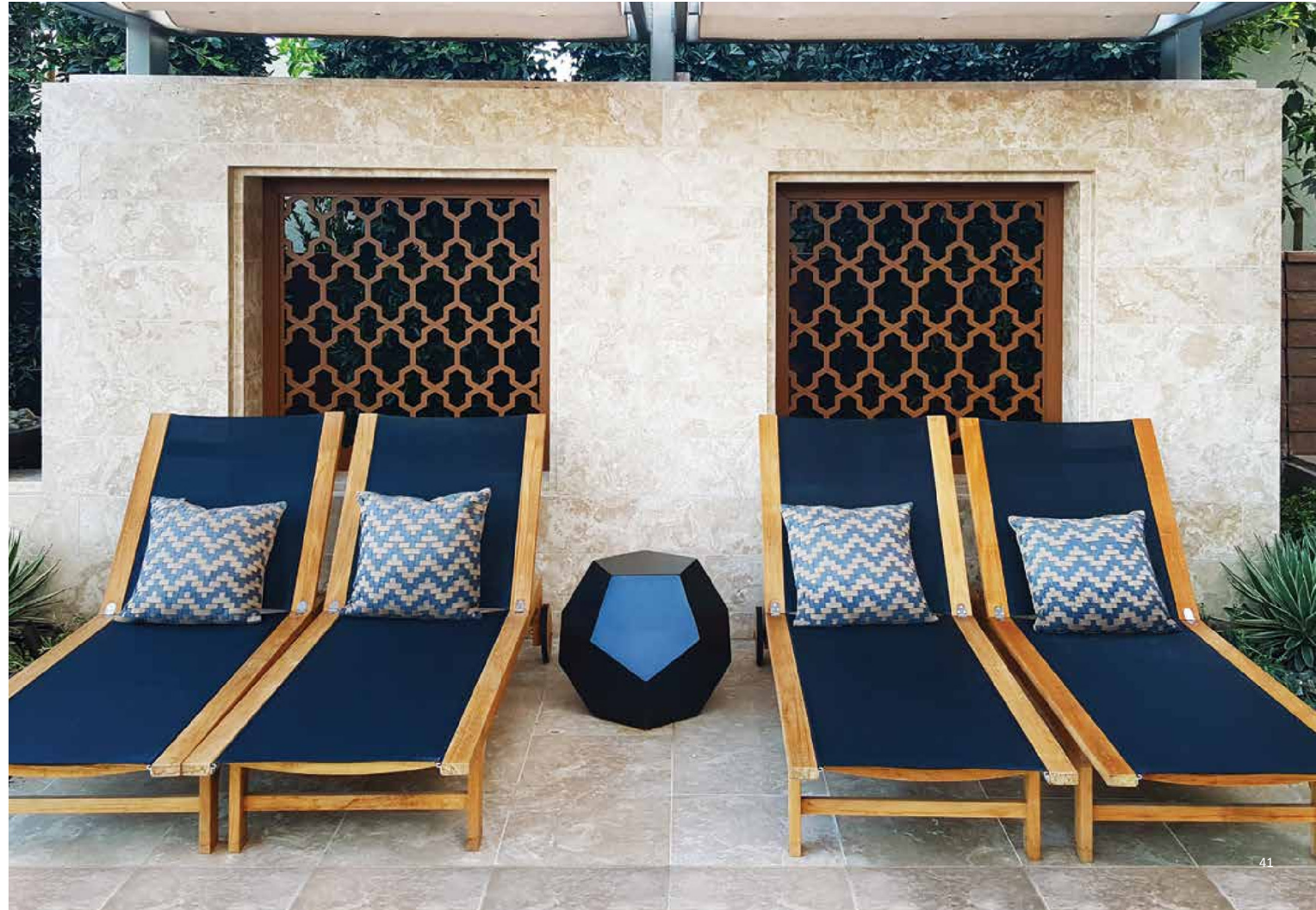
Signage

Alternative to conventional signage, laser-cut signs draw attention to your logo and company branding. Lighted signs optimize effect and visibility. Modern solutions include solar, battery power, or low voltage LED elements. Signs can also be constructed for both indoor or outdoor applications. We use an outdoor MDF which can be painted, or a wood veneer on outdoor MDF with outdoor-rated adhesives for an all-weather product.



Outdoor & High Moisture Areas

We have the right material for high moisture projects. Weather-proof wood options, laser-cut metal, or phenolic can all be used safely, will not warp, and will look perfect in a spa, bathroom or garden. Our laser-cut outdoor panels are often used to add privacy to decks, as customized art on the outside of religious institutions or buildings, and in hotel outdoor spaces with bars, restaurants, and lounges. Whether you add art to your garden, create an outdoor living space, or just bring natural elements to your indoor relaxation areas, we have the products that can last.



Outdoor & High Moisture Areas

The photo on upper left is at a residence in Bellevue, WA. The customer wanted a visual block as well as a pleasing, peaceful atmosphere. The panels were made from Cold Rolled Steel and then powder coated. The panel using our Japanese Bamboo pattern in the next photo uses bare, unfinished aluminum. To get a wood grain look in an outdoor material bamboo veneer can be glued to our outdoor MDF. Other veneers may also work depending on the amount of exposure to the elements.



Patterns

Our creative department maintains an extensive library of art, featuring patterns inspired by clean natural lines, and dramatic geometry from around the world. We are happy to modify our patterns to meet your needs. Whether bold graphics or subtle florals, use one of our patterns or create your own signature masterpiece. Our staff will work with you throughout the quoting, proofing, and manufacturing process, ensuring your project exceeds all expectations.

The renderings on the following pages represent 23" x 23" sections of a panel, in what we call the standard scale. If you prefer the pattern to be a different size, scaling it up will be done at no charge. Scaling it down up to 10% will not incur extra cost. More than 10% will result in increased cost, the amount being dependent on the percentage of reduction, due to increased lasertime.

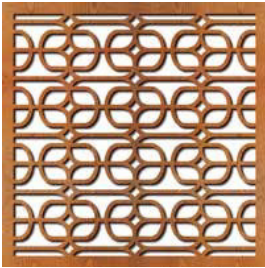
We do make small adjustments to the scale of each pattern, so that it fits on the panel in the most aesthetically pleasing way. You will receive a detailed proof showing how the pattern fits on your panel size. And we also have 8" x 8" samples available in each pattern.



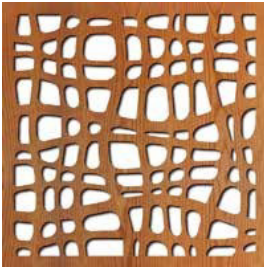
New 2018 Patterns



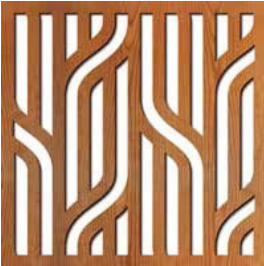
Leeds Grille



Lounge Grille



Mesh



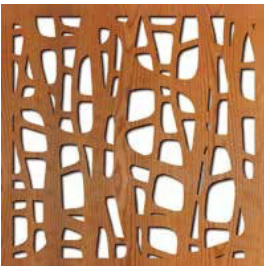
Braids



Cambium



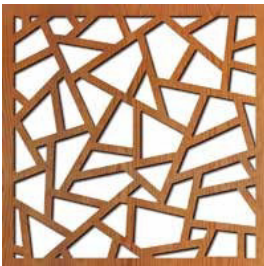
Cantaloupe



Moss



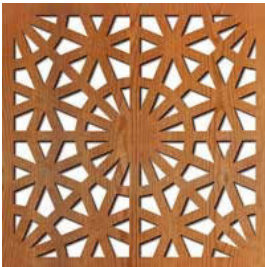
Oslo



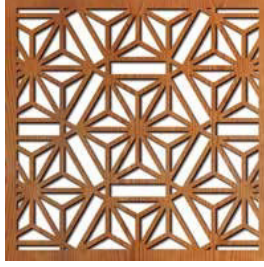
Triangle Mosak



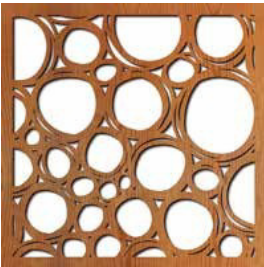
Ginza



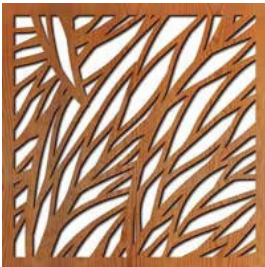
Hartman



HexFlower

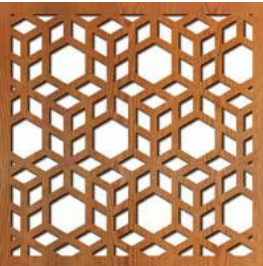


Truckee

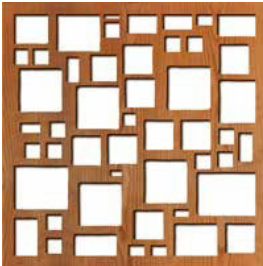


Wavy Leaves

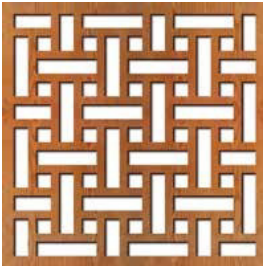
Pattern Library



3D Cubes



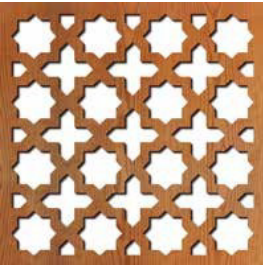
Barcelona



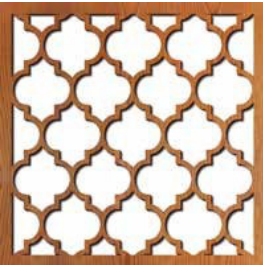
Basketweave



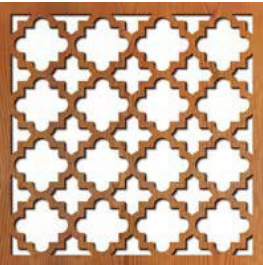
Batik Swirls



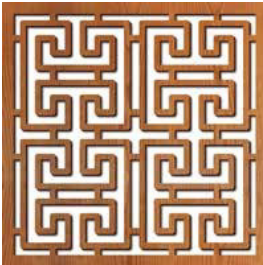
Arabesque



Arabesque2



Arabesque3



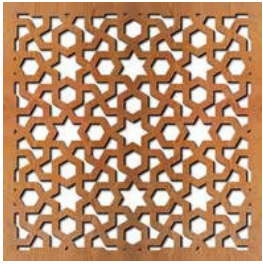
Beijing Grille



Black Eyed Susan



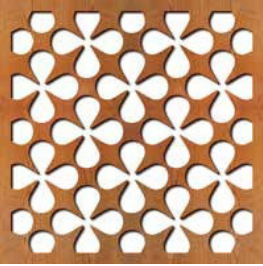
Branches



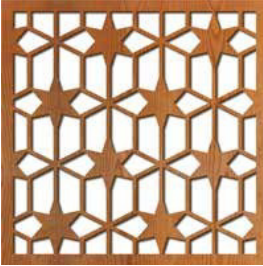
Arabic Geometric



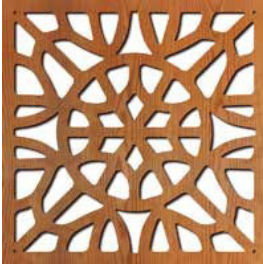
Arches



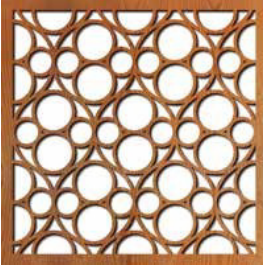
Atomic



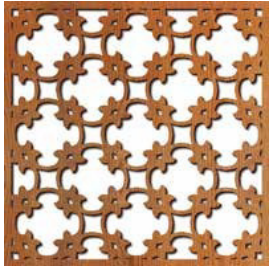
Breezeway Star



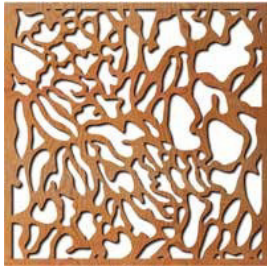
Brooklyn



Burbank



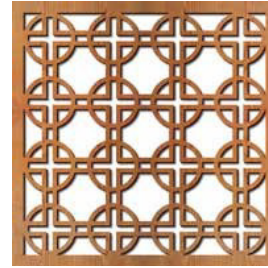
Camphor



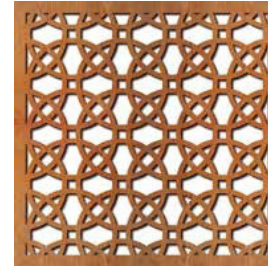
Canoe



Carmel



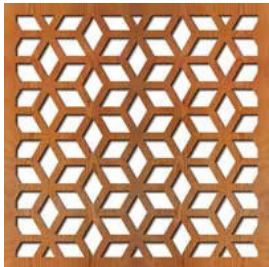
Circles Square



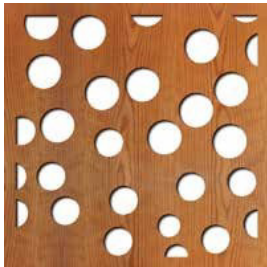
Circles Thick



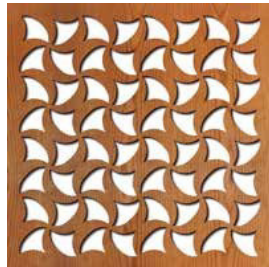
Circle Grille



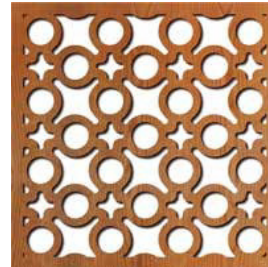
Casablanca



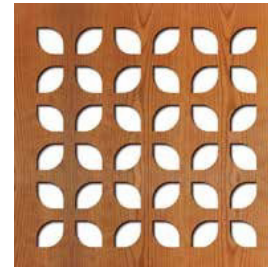
Champagne



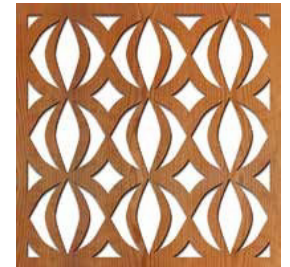
Chester



Concrete Block



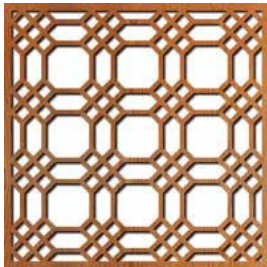
Copenhagen



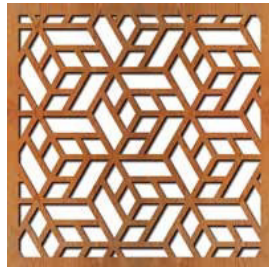
Corcovado



Chevron



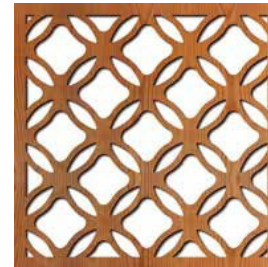
Chicago Grille



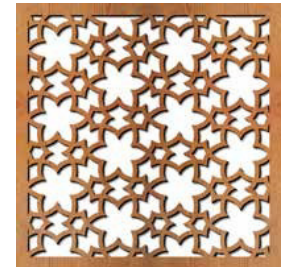
Chinoise Cube



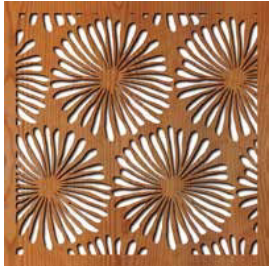
Crocus Spirals



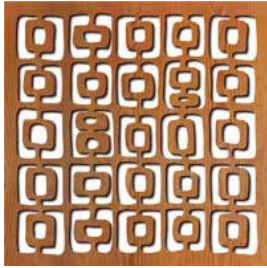
Cube Vibrations



Curvy Stars



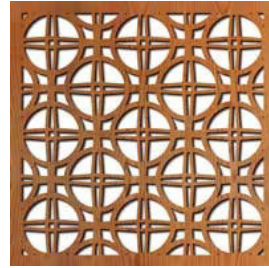
Daisies



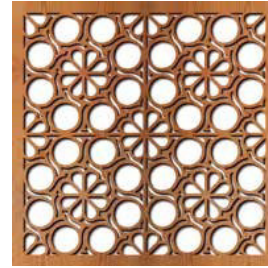
Dallago



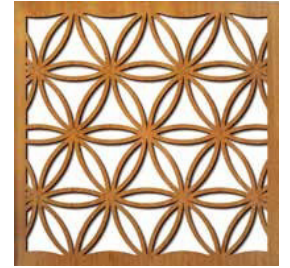
Damask



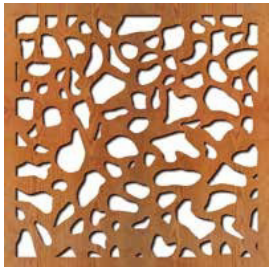
El Paso



Flower Circles



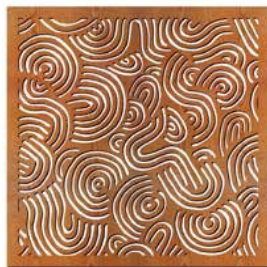
Flower of Life



Dappled Light Fade



Dappled Light Uniform



Deco Swirls



Flowing Water



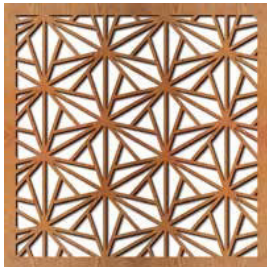
Garden Fantasy



Gatsby Arches



Double Horseshoe



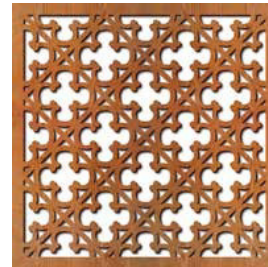
Dragon Claw



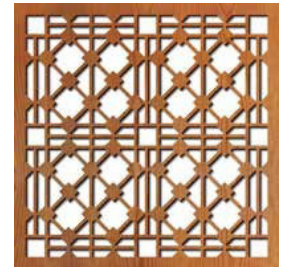
Eastern Blossom



Ginkgo Leaves



Gothic Grille



Hardt Grille



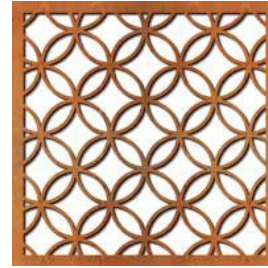
Hawaiian Pattern



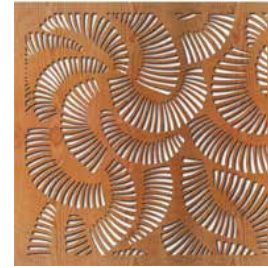
Heavenly Bamboo



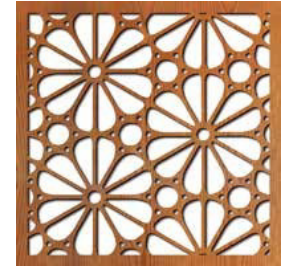
Hexagon Puzzle



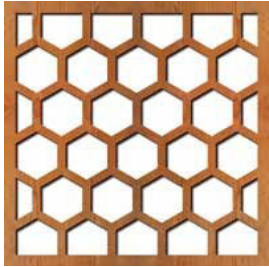
Japanese Circles Thin



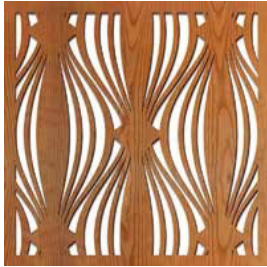
Japanese Fans



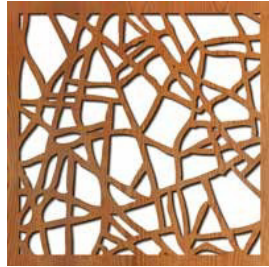
Kyoto



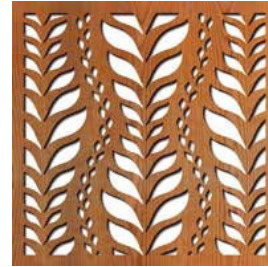
Honeycomb



Hourglass



Ice Dreams



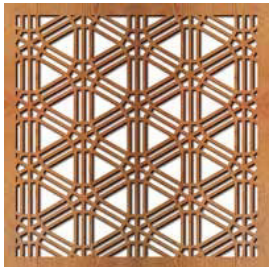
La Jolla



Many Flowers



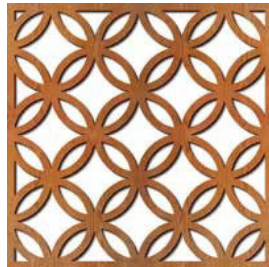
Maple Leaves



Interlocking Wheels



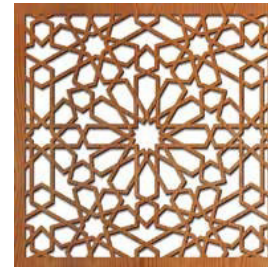
Japanese Bamboo



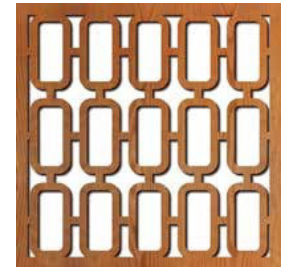
Japanese Circles Thick



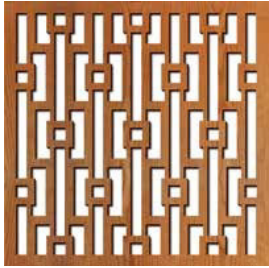
Marrakech



Medina



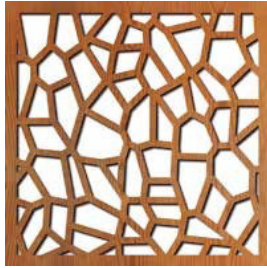
Mezzo Grille



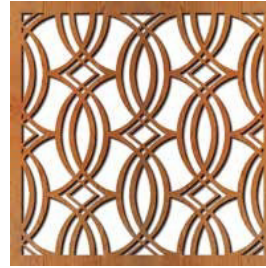
Mod Geometric



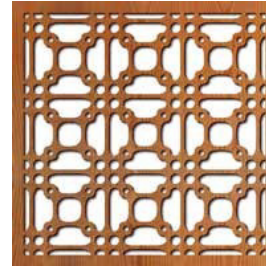
Moorish Leaves



Mosaic



Paris



Perry Grill



Persian Circles



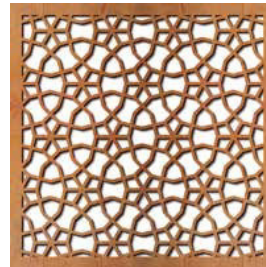
Oak Leaves



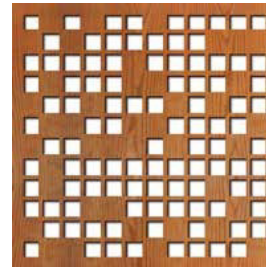
Offset Circles



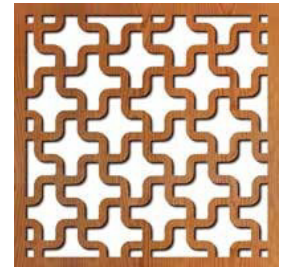
Open Basketweave



Persian Wheels



Pixel



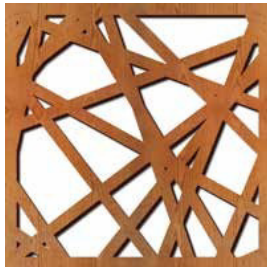
Puzzle



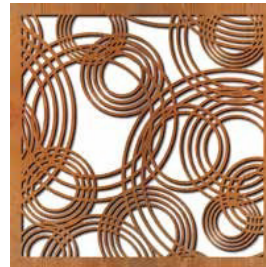
Ornate Damask



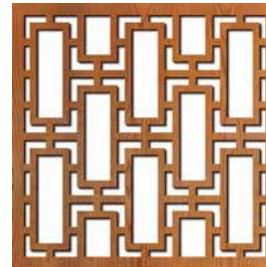
Palace Fruit



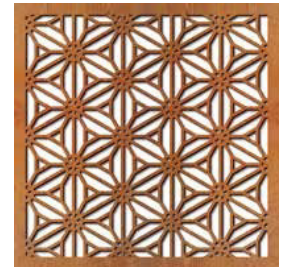
Palomar



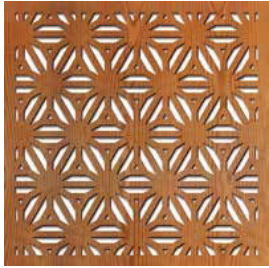
Rain on Water



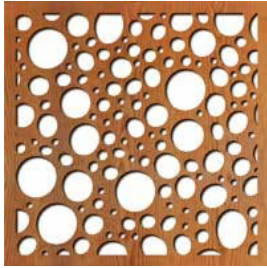
Rectangular Lattice



Reverse Flowers



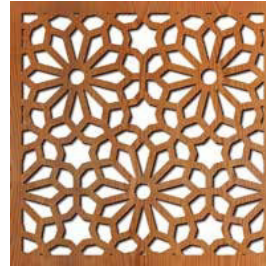
Reverse FlowerThick



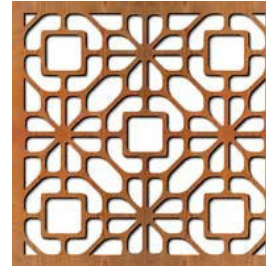
River Rocks



Roses



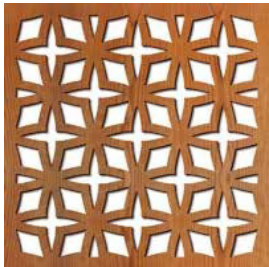
Seville



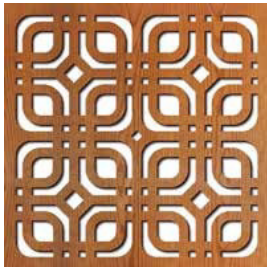
Silver Flowers



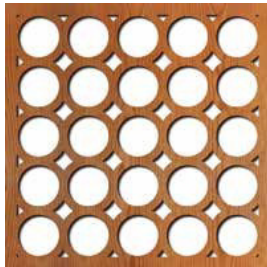
Spring Vines



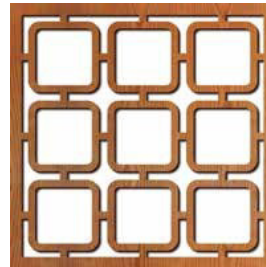
Rota Star



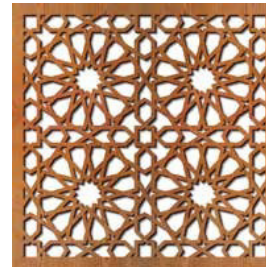
Rounded Squares



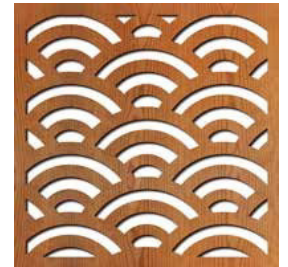
Santa Monica



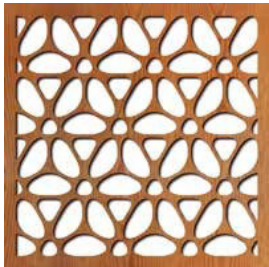
Square Mezzo



Star Pattern



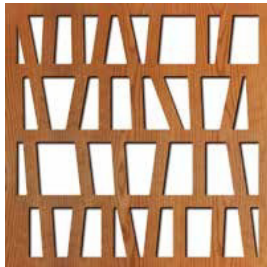
Sunrise



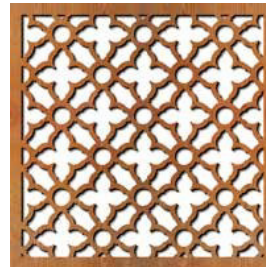
Sao Paulo



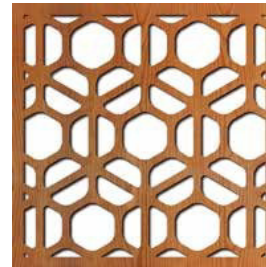
Sea Fan



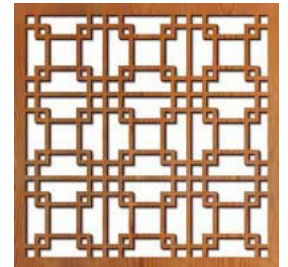
Secret Code



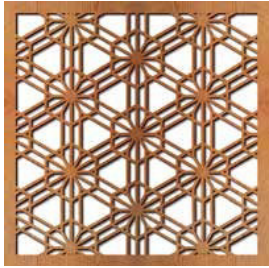
Swift Grille



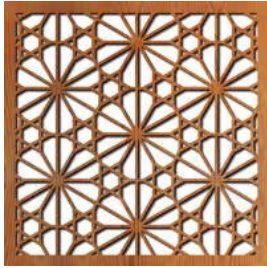
Taiwan



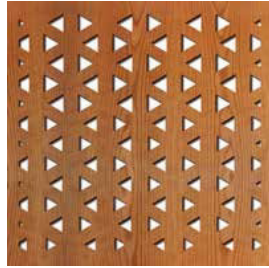
Tokyo Grille



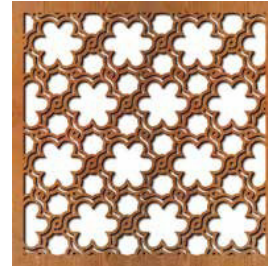
Tortoise Shell 1



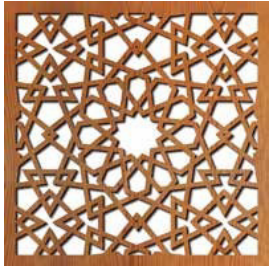
Tortoise Shell 2



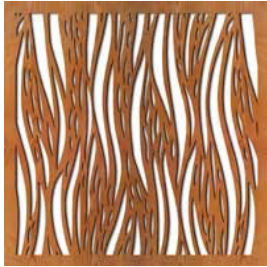
Triangle Fade



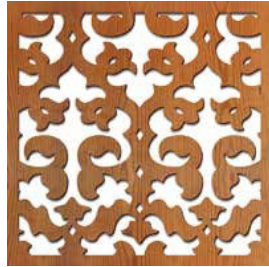
Woven Flowers



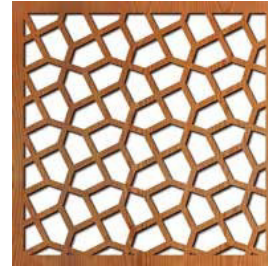
Tunis



Waterfall



Wallpaper



Woven Links



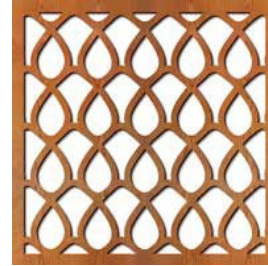
William Morris Leaves



Wiseman Star



Wispy Palms



Woven Wire



Metal

Metal is a great material for certain applications. Compared to wood, metal is stronger, well-suited to outdoor uses, and can be finished in a huge number of powder-coating options. Metal panels are much thinner than wood panels, and stronger. Our most common steel material thicknesses are 10, 12 and 14 gauge. These thicknesses are .141", .109" and .078". In aluminum, our most common thickness is 1/8" thick, although other thicknesses are available.

Steel and aluminum material comes in sheets up to just under 5' x 10'. Metal can also be bent or rolled after laser cutting, so panels can be curved to make interesting shapes or bent to make columns or U-shaped light boxes.

The laser-cutting process introduces heat into the metal, so there are some additional considerations for patterns to be laser-cut. Some patterns are too intricate or leave narrow lines and can get too hot and warp. Please contact us for suggestions on which patterns can be laser-cut in metal.

All steel should be powder-coated, unless you want a naturally rusted finish. Aluminum can be unfinished or powder-coated. Outdoor applications near salt water should be aluminum.



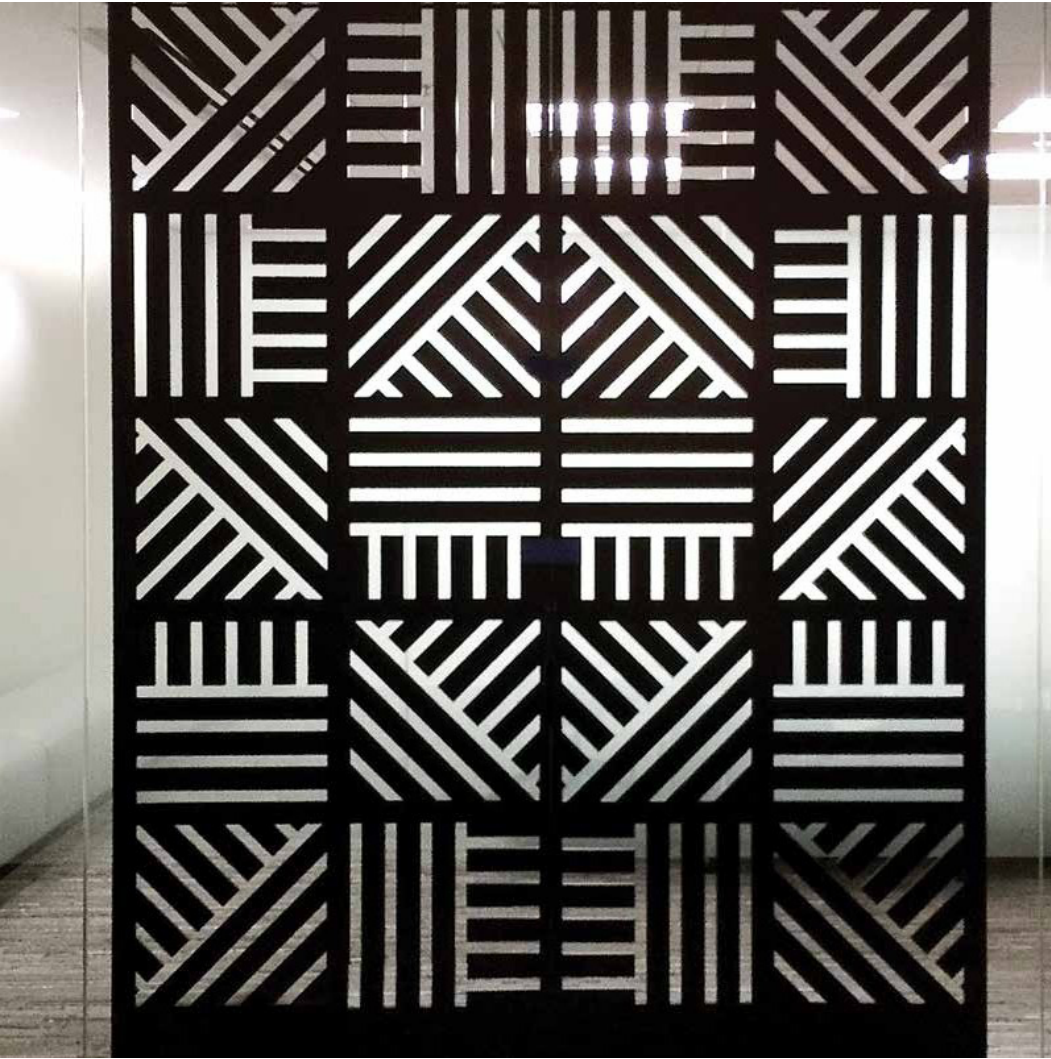
Aluminum

Another perfect choice for exterior use, aluminum panels are relatively lightweight and can be installed outdoors without powder coating.



Cold Rolled Steel

A versatile alternative for both interior and exterior applications. Finish with UV stable powder coating to offer an array of colors and textures.



Powder Coating

2018 brings exciting new finishing options for metal and wood panels. These finishing options are divided into the following categories:

Steel and Aluminum

Choose from the more than 5,000 finishing options offered from Prismatic Powders. There are no "standard" finishes, so powder is ordered for every job. Some finishes, such as pearlescent finishes, require multiple steps and are more expensive. Please notify us if your project is located within a few miles of salt water. There are additional considerations for these locations.

MDF

There are three different categories of finishes (available second half of 2018):

Primer which is ready for your painting. Powder coated primer is durable and will save painting time. Works with any paint.

15 "standard" colors. Shown on next page. These colors are in stock and do not require minimum powder purchase.

250 special order RAL colors.

A wider variety of color options, including some metallic finishes. Requires minimum purchase and extra lead time for the powder.

Wood Veneer on MDF

There are two different categories of finishes (available second half of 2018):

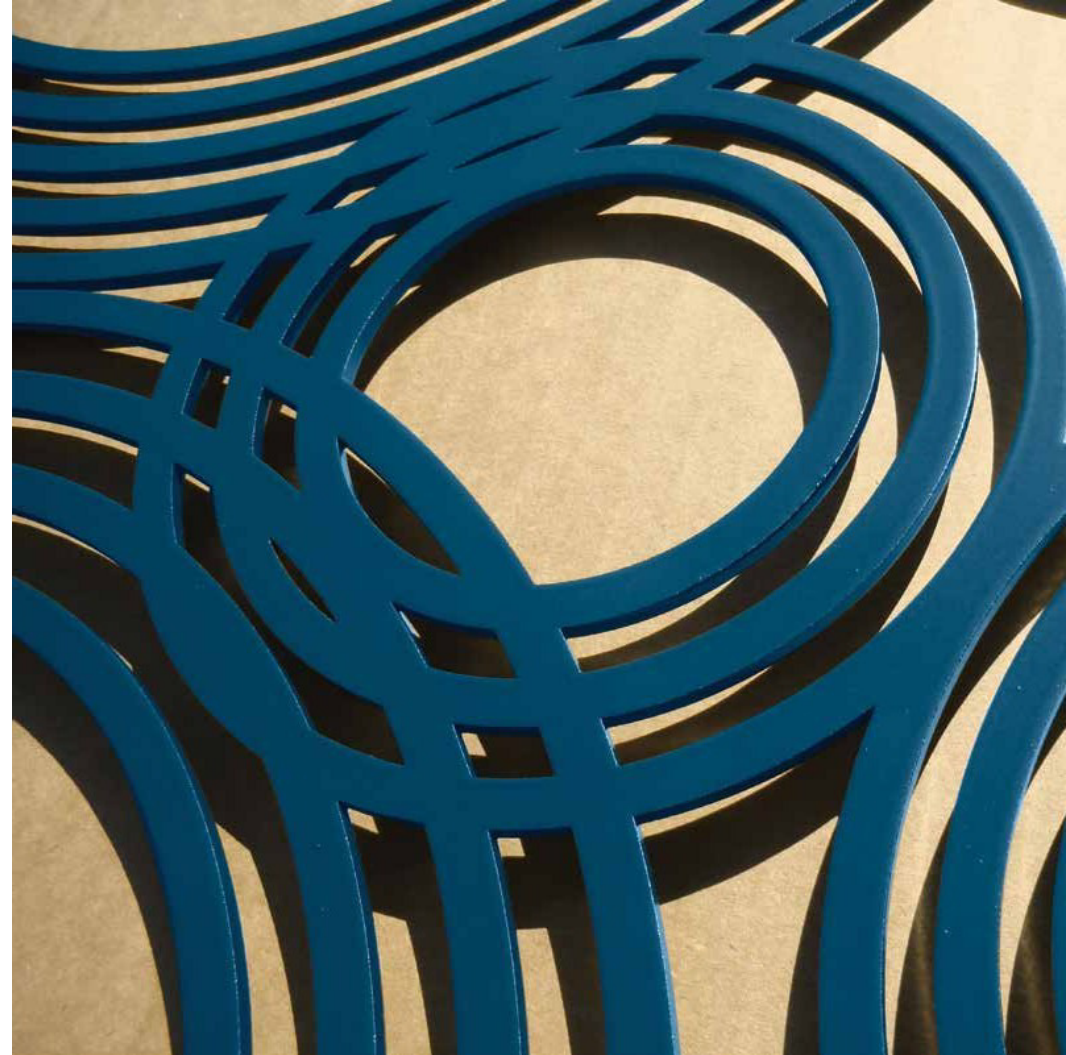
Clear finish on veneer. Any veneer option can be clear powder coated. Standard veneers are Maple, Walnut, Alder and Oak.

Clear finish on "standard" stain colors and veneers. 32 different options using the eight "standard" stains with the four standard veneers. Stain colors are shown on the previous page.

The general durability of powder coating is superior to other finishing options. It is baked on resin and cures in a 300-degree oven.

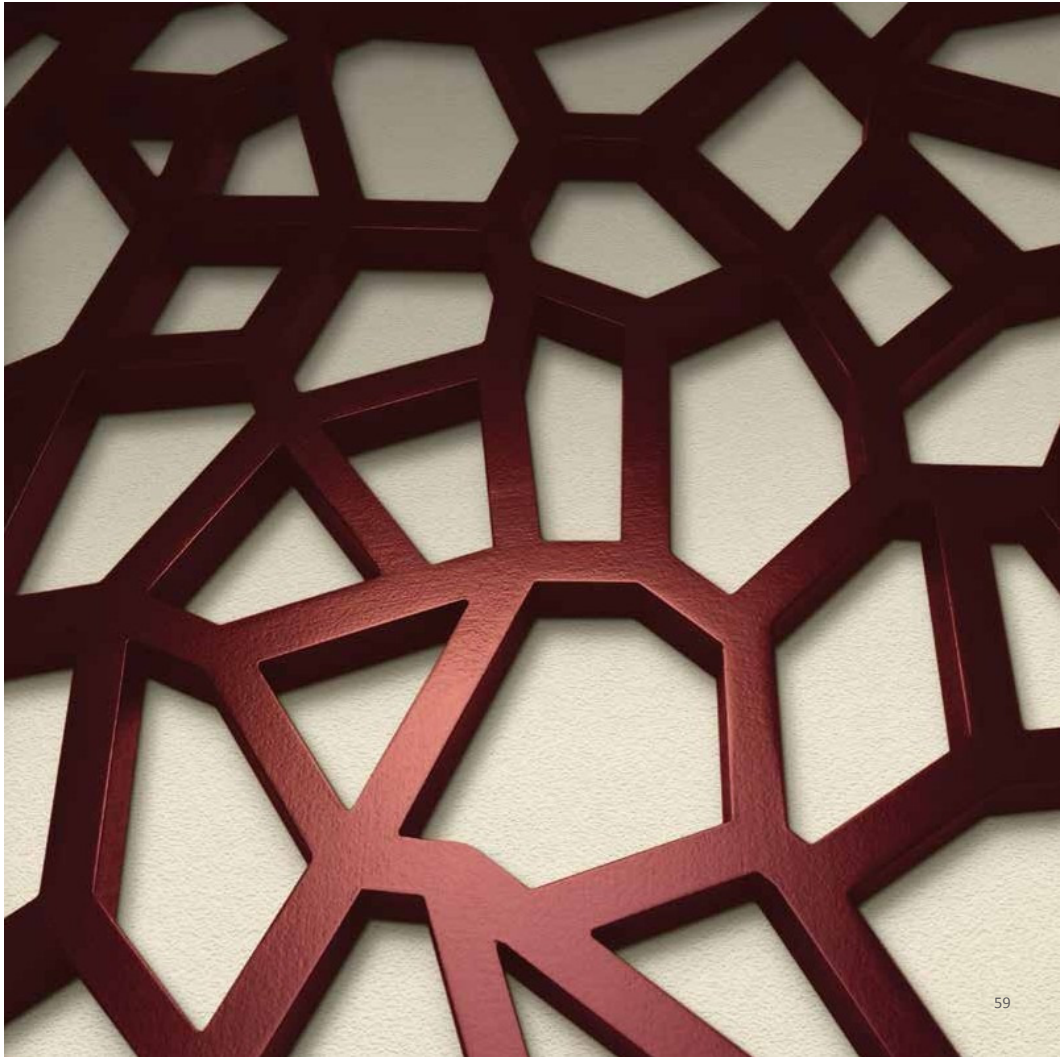
It doesn't crack or flake off, sprays on electro-statically, and contains no VOC's. It is an environmentally-friendly finish, and similar to a hard-baked enamel. Unlike painting, it is permanent and does not require re-painting.

Powder Coating requires wood that is a minimum of 1/2" thick. 1/4" thick panels are offered in unfinished wood or pre-finished options.



Powder Coating Colors for Metal

(Examples from the 5000 available finishes)



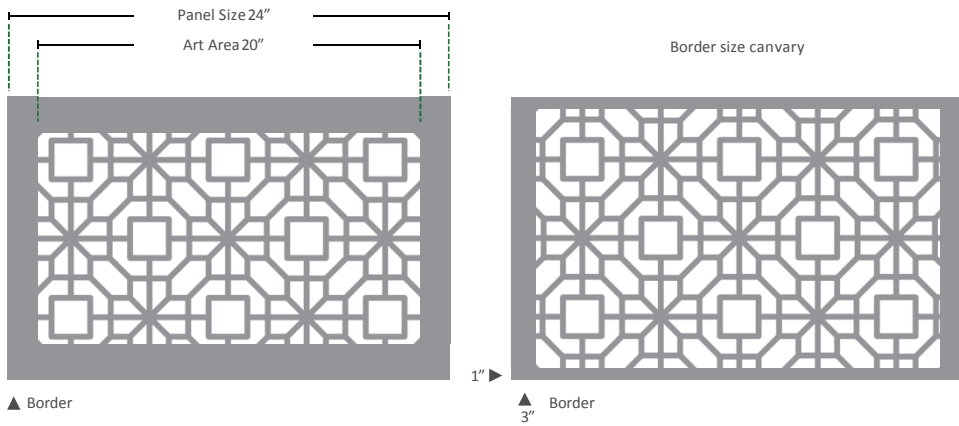
Border Treatment & Pattern Options

You have a vision for your panels, and there are practical aspects to consider such as how it will be installed—will the edges be covered or exposed, is the thickness appropriate for the application, should the scale of the pattern be increased or decreased? Our salespeople can help you decide what will work best. Borders can be customized, patterns can be scaled up or down, holes can be pre-cut, and many other customizations can be accommodated. The following pages give a few examples of most common border options and panel adjustments.



Border Treatment

A border is the uncut area that extends beyond the artwork. Borders are important for the stability of the panel, creating a finished look, and helpful for installation of the panels. Panel size refers to the total size of the panel, including the border, while art area refers to the area on the panels that is laser-cut. Standard border size is 1,"but can vary according to your needs.



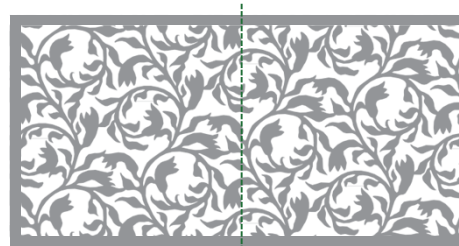
Border Options



Border uniform size
One setup fee
Border remains uniform on all panel sides.



Border 1/2 size where borders meet
Two Setup Fee
Border is adjusted to 1/2 where panels meet making the interior border appear the same as the outer borders.

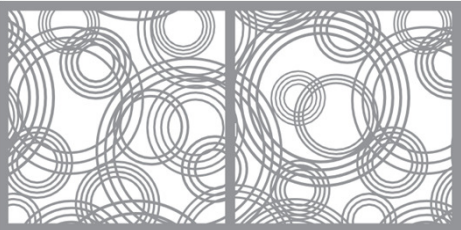


No Border Where Panels Meet
Two Setup Fee
Pattern flows continuously across panels. This treatment may not be available for all patterns.

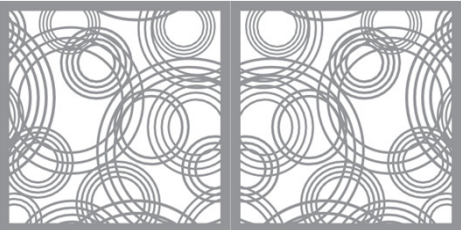


No Border Where Panels Meet
Pattern dictates where panels are cut
Two Setup Fees & Custom Pricing
Pattern flows continuously across panels. Pattern dictates where panels are cut in order to keep pattern intact and keep join area inconspicuous.

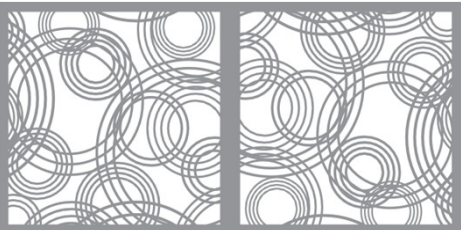
Pattern Options



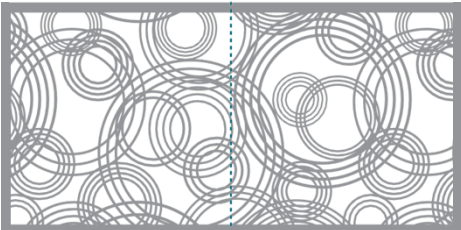
Panel repeated
 One setup fee
 2nd panel is repeated. Pattern can be awkward where pattern meets.



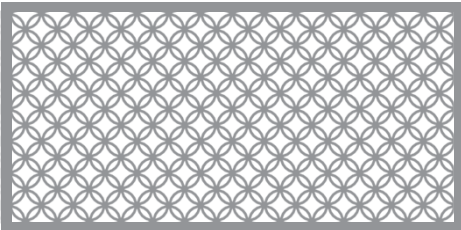
Panel flipped Horizontally
 One setup fee
 2nd panel flipped horizontally. Works best using geometric patterns.



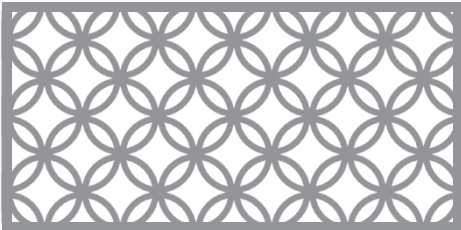
Panel flipped Horizontally &Vertically
 One setup fee
 2nd panel flipped horizontally and vertically. Works well depending on pattern.



Continuous across Panels
 Two setup fees
 Pattern flows continuously across panels. No border where panels meet. Depending on pattern and it's placement, some pattern pieces may fall out where pattern meets.



Pattern scaled down
 One setup fee
 Patterns scaled down are subject to an up-charge. Price increase depends on percent reduced.



Pattern scaled up
 One setup fee
 No charge for patterns scaled up.



Border follows custom shape
 One setup fee
 Patterns and borders can follow custom shapes.



Custom Patterns & Shapes
 Setup fee based on project & art
 We can use your own custom pattern for your panels.
 Costs vary per project.

Hanging options

At Lightwave Laser we know that every space is different and requires a creative solution in hanging or installing your panels. We have considered panel thickness, size, weight and environment in our recommendations for panel installation. While we continue to discover more creative solutions to fit your needs, here are a few options to consider.

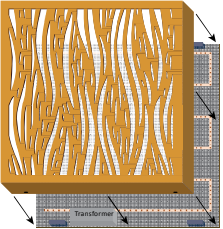


Lightbox Assembly

Light boxes can be a beautiful lit piece of art or signage. A 4-inch deep light box is our standard light box depth. We can make them as shallow as 2.5 inches for an additional cost, if needed. Maximum depth is 6-8 inches. Lighting can be assembled on just the perimeter, which gives the light box a pleasing gradation of light from perimeter to center. Alternately, lights can be built evenly across the backing board to create an even distribution of light from within.

There are many dramatic color options available. Warm or cool white light is a standard, and we also offer color-changing light boxes that fade through RGB colors, or can be set to one specific color. One remote can control multiple light boxes for your convenience and ease of use. Perhaps, best of all, they all have a dimmer.

Light boxes come ready to hang with a 3, 6, or 9-foot power cord in the back. They can be hard-wired if requested. The transformer will be built inside the box, unless your electrician has requested it be on the outside.



Light box



Detail of light box mounting to backing board

- 4" deep box fits over backing board with lighting and attaches with flathead screws, flush with edge, at top and bottom.
- 120 volt power goes into transformer
- 4 watts per square foot of light box
- Transformer makes 12 or 24 volts DC
- Dimmer adjusts down from max voltage
- Boxes are turned off by switch on wall
- Light-diffusing frosted acrylic panel is flush behind laser-cut panel.
- LED light attached to backing board, 4" spacing between rows and .66" between lights
- Backing Board is 1/4" MDF
- Lighting will be ready for hard wiring, or optional power cord
- Transformer rests on bottom of box



Order Process



Order Process Continued...

Pricing



Prices vary according to the finish selection and thickness.

Lead Time



Lead time is determined by art, materials, and any custom work your project requires. Projects requiring custom art or custom finishing or any other custom work will have a longer lead time, while stock art and materials will have a shorter lead time. Please contact us if your project is large in quantity or if there are scheduling considerations.

- Stock Art & Materials 3–4 Weeks
- Add Custom Finish +1 Week
- Add Custom Wood +1 Week

• Add multiple custom options or metal, lead time determined on a project by project basis.

Rush Fees



We can accommodate projects that need a RUSH. Fees start at 15% of the project.

Custom Projects



Though we have an expansive library of patterns to choose from, we also specialize in being able to create a laser-ready pattern or artwork from your inspiration. If you are providing us with a digital file, we prefer vector art files rather than raster. Preferred formats are .ai, .pdf, .eps, .dxf, .dwg. We look forward to collaborating on your custom project, and custom art creation.

Shipping Info



We ship using common carrier and use a streamlined process to provide you with the best price, as well as a dependable and prompt delivery. We send tracking information to you as soon as it is available. We ask that you inspect the crate for any damage before accepting the shipment.



UIMS[®]

Universal Metal Syndicate

Universal Metal Syndicate

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- **Contact Us** – +91 81494 27750 , +91 77198 77159
- **Email Us** - universalmetalsyndicate@gmail.com , kharatsam9@gmail.com , sanjayalone18@gmail.com , sales@universalmetal.com

Looking Forward To Serve You..