w.s.tyler

ARCHITECTURAL WIRE MESH

WEAVING IDEAS

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A Haver & Boecker Company

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OUR STORY

Founded in 1872, W.S. Tyler® quickly established itself as a pioneer in the engineering and production of woven wire and mesh materials. For over 140 years, we have been committed to maintaining that standard of excellence. Today, W.S. Tyler is partnered with German multinational Haver & Boecker, solidifying our place as one of the world's leading manufacturers of wire cloth and mesh materials.

Our combination of innovation and tradition allows us to meet and exceed the high expectations of our customers. With a wealth of experience, relentless research and development, and a passion for precision, W.S. Tyler remains well-positioned to continue its vision into the future.

Our W.S. Tyler Architectural Mesh is a product of that vision.

W.S. Tyler Architectural Mesh seamlessly blends impressive functionality with aesthetic appeal, opening the possibility for fresh perspectives in creative design. With both interior and exterior applications, our mesh provides striking solutions to common architectural problems. And W.S. Tyler's award-winning customer service is available during every phase of the project – from conception, to implementation, through on-time installation.

We believe our creative collaborations with world-renowned architects is a testament to our expertise, the quality of our products, and our unique way of weaving your ideas.

FAÇADE DESIGN

BRILLIANT IDEAS

W.S Tyler Architectural Mesh offers architects and planners a multitude of design options for exterior façades, combining sophisticated aesthetic features with countless practical functions.

The deployment of different types of mesh enhances the appearance of a building and imbues it with immense individual character. Depending on certain variables, such as lighting conditions and viewing angle, the material can appear transparent or opaque. On a clear afternoon, the surface of the mesh reflects sunshine, producing a shimmering metallic effect. Under cloud coverage, the façade creates the impression of a building with a second skin. Regardless of conditions, the mesh lends undeniable elegance to a structure.

W.S. Tyler Architectural Mesh also serves a variety of safety functions, including immediate protection from environmental elements such as sun, wind, rain, and sound. Manufactured with molybdenum, our high-strength meshes increase corrosion resistance and require minimal maintenance. Tried and tested, our fastening systems enable customizable mounting solutions, optimizing safety for even the tallest buildings and strongest winds.

Performance the world over. Façades with W.S. Tyler Architectural Mesh.

BENEFITS AT A GLANCE:

Individual Design

The diversity of W.S. Tyler Architectural Mesh, the largest spectrum of colors, and a wide selection of mounting solutions offer almost unlimited design possibilities.

Natural Ventilation

The transparent properties of W.S. Tyler Architectural Mesh allow natural ventilation. The open areas of our mesh can even be adjusted to meet specific aeration and ventilation needs.

Sun Protection

W.S. Tyler Architectural Mesh acts as effective protection from the sun, filtering incidence light and reducing the gradual warming of a building.

Fall Protection

Whether it is balustrade infill in a multi-level parking garage or cladding on balconies and staircases, W.S. Tyler Architectural Mesh can be installed as an additional layer of fall protection.

Unique Views

Given its structure, W.S. Tyler Architectural Mesh provides an array of unique views from inside and outside of the building, with the potential for transparent, opaque, or reflective façades.

Long Lifecycle

W.S. Tyler Architectural Mesh stands the test of time. Designed and manufactured with extreme durability in mind, our mesh uses corrosion-resistant stainless steel and robust mounting technologies, ensuring an extended, maintenance-free lifecycle.

Building Redevelopment

W.S. Tyler Architectural Mesh is a powerful tool in the renovation of existing buildings. As an adaptive design piece, it is capable of fusing old and new architectural elements into a refined modern structure.

Color

Various substitutions or techniques, such as the usage of non-ferrous metals, coated and printed meshes, or even illuminated media façades, bring color and further customization to W.S. Tyler Architectural Mesh.

SIZE WITH FORMAT

FAÇADE SURFACES WITH A UNIFORM APPEARANCE

In most cases, W.S. Tyler Architectural Mesh can be tensioned over the full height of a building. To accomplish the feat, solid substructures that absorb significant loads, such as pre-tension, wind, and ice, are usually required at just the building's upper and lower attachment points. The simple arrangement ensures significantly lower costs for substructures and installation compared to façade cladding with framed solutions.

Depending on the size of the individual mesh elements, additional intermediate mountings might need to be fixed to each level of the building. These attachments reduce the maximum loads on the substructure as well as possible deflection of the mesh.

Architectural mesh tensioned over several stories. Load-bearing substructures are only required on the upper and lower face.

Large mesh elements are quick and easy to assemble and, once completed, require little maintenance.

W.S. Tyler Architectural Mesh allows extensive façades to be clad with a homogenous appearance.

While the maximum width of the wire mesh elements is limited by production methods, the length is restricted by specific handling and technical considerations. For the most part, it is possible to clad façades of heights as high as 65 to 82 feet in single length elements. Larger elements can be manufactured subject to a detailed technical inspection.

During assembly, the wire mesh elements are installed with a defined pre-tension; however, the maximum loads occurring due to wind and other factors may be considerably higher.

When interacting with sunlight, stainless steel wire mesh grants façades an elegant, glimmering appearance

EFFECTIVE SUN PROTECTION

BUILT FOR THE BEST INDOOR CLIMATE

W.S. Tyler Architectural Mesh's exterior sunlight protection is significantly more effective compared to alternative interior systems. The protective effect catalyzes a series of additional advantages, including, but not limited to, financial benefits in the form of reducing energy costs from air conditioning. Incident solar radiation is optimally filtered by the mesh, slowing the warming of the façade.

The transparency of the mesh also enhances the façade's optical effects, simultaneously preserving the exterior and interior appearance of the building. On projects with glass façades, these effects bring new design possibilities to life.

Transparent architectural mesh elements effectively blends sun protection with limitless design possibilities

The open geometry of the architectural wire mesh preserves the view of the outside world.

The shimmering, metallic effect of the stainless steel mesh in sunlight accentuates the architectural concept and provides a pure aesthetic appeal.

BENEFITS AT A GLANCE:

Shading
The structure of W.S. Tyler Architectural Mesh provides effective shading in the summer, particularly with a high angle of sunlight incidence. It can also provide the added benefit of harnessing solar to reduce heating costs in the winter with a low angle of sunlight incidence.

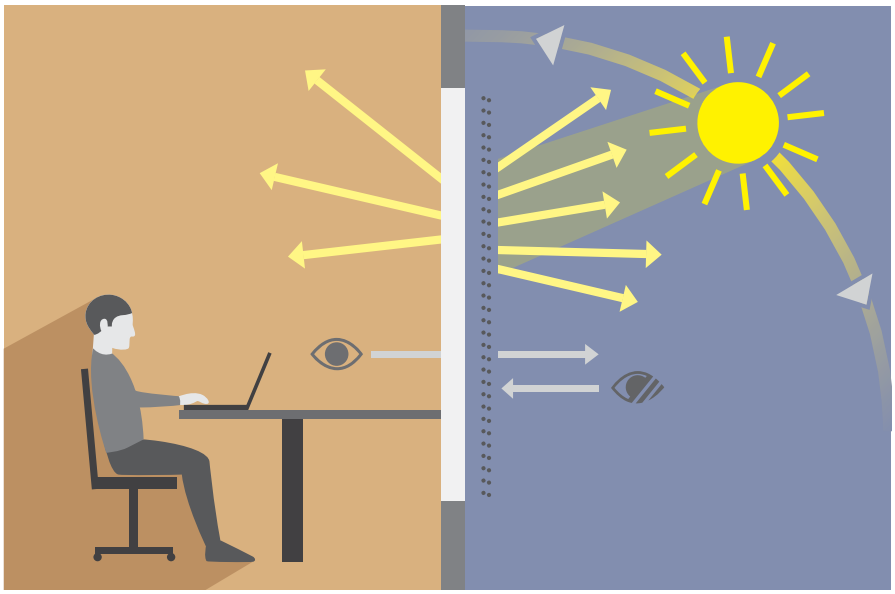
Natural Ventilation
Due to its open area, W.S. Tyler Architectural Mesh promotes optimal circulation and prevents pockets of warm air from accumulating in front of the façade. The corresponding distance between the mesh and the glass enhances ventilation.

Excellent Interior Views
Depending on the selected W.S. Tyler Architectural Mesh type, the façade appears extremely transparent from the inside due to the viewing angle and natural daylight, leaving your views unobstructed.

Versatile Solutions
W.S. Tyler Architectural Mesh is suitable for permanent sun protection using large-scale, tensioned elements. It can also be integrated in sliding or hinged frames for removable solutions.

The combination of transparency and sun protection is ideal for modern glass architecture.

Precisely-defined open areas filter sunlight and create a pleasant, bright interior climate.



BEST VALUE

DESIGNS WITH IMPACT

Specific figures are used to objectively determine the effect of sunlight protection, including to determine additional air conditioning requirements. The g-value, or the total energy transmittance, refers to the proportion of solar energy that penetrates through a transparent component, such as a window. For example, a g-value of 0.6 means that 60% of the solar energy reaches the interior, either as direct solar radiation or through warming the system and then transmitting its heat inside.

The interaction of the entire system needs to be considered when using W.S. Tyler Architectural Mesh as sun protection in combination with a glass façade. The following factors include:

- Type of glazing
- Incidence angle of sunlight
- Distance of the wire mesh to the glass façade
- Gloss level of the wire mesh

The Bavarian Center for Applied Energy Research (ZAE Bayern) examined different glazing, incidence angles, and various ventilation and their effect on external shading provided by wire mesh. The exact effect of the wire mesh on reducing energy can be determined by comparing the g-value for the entire system (mesh and glass façade) to that of the just the glass façade. This comparison results in the energy reduction factor, or Fc. A value of 0.4 means the energy transmission for the entire system is reduced to 40% due to the protective mesh used.

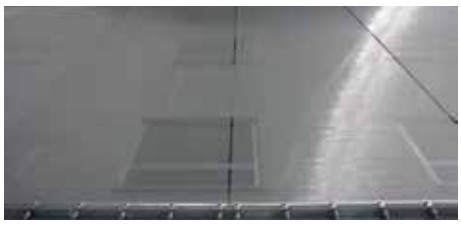
Excellent Shading Effect

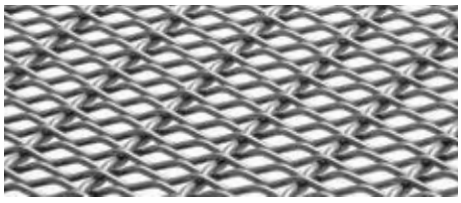
With a sunlight incidence angle of 60° and double glazing, most W.S. Tyler Architectural Mesh types achieve a reduction in solar energy transmittance between 40% and 70%. In combination with corresponding sun protection glazing, they can achieve g-values of between 0.1 and 0.18 with the same incidence angle.

The mesh type LARGO-TWIST 2045, specifically designed for greater sun protection, goes even further. At a 60° sunlight incidence angle, the energy transmission is reduced by more than 90%, allowing a g-value of 0.02 when paired with proper sun protection glazing.

EGLA-TWIN 4253				
DOUBLE GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.78	0.45	0.43	0.27
F_C-FACTOR	1.00	0.58	0.55	0.34

SUN PROTECTION GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.29	0.18	0.17	0.11
F_C-FACTOR	1.00	0.59	0.56	0.36





DOKAWELL-MONO 3601				
DOUBLE GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.78	0.48	0.44	0.30
F_C-FACTOR	1.00	0.62	0.56	0.38

SUN PROTECTION GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.29	0.19	0.17	0.12
F_C-FACTOR	1.00	0.62	0.57	0.41

LARGO-TWIST 2045				
DOUBLE GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.78	0.38	0.27	0.06
F_C-FACTOR	1.00	0.49	0.35	0.08

SUN PROTECTION GLAZING, GOOD VENTILATION				
INCIDENCE ANG-	GLAZING	0°	30°	60°
G-VALUE	0.29	0.15	0.11	0.02
F_C-FACTOR	1.00	0.50	0.37	0.08

Values in accordance with DIN EN 13363-2

Privacy during the day. EGLA-TWIN mesh façade, Benaki Museum, Athens, Greece.

View of the backlit mesh in the evening.

Transparent, unobstructed view from the inside.

TRANSPARENCY AND PRIVACY
BLENDED INSIGHTS AND PERSPECTIVES

W.S. Tyler Architectural Mesh is capable of forming a shimmering shell, granting a building its own distinct style and providing enhanced sun protection at the same time. It is equally capable of allowing a scenic, unobstructed view of the outside world from the inside of a structure while simultaneously offering privacy to the occupants of the building. Depending on the mesh types, viewing angle, and lighting, the optical effect of stainless steel wire mesh cladding varies, often reflecting natural weather conditions on its surface. Regardless of the form of its effect, the mesh stands as an elegant juxtaposition of transparency and privacy, further demonstrating its value as a functional and aesthetic centerpiece.

View during the day. LARGO-PLENUS wire mesh, Car Park One at Chesapeake, Oklahoma City, USA.

View during the day. EGLA-TWIN mesh façade, Eichsfeld Borderland Museum, Teistungen, Germany.

View at night.

Night-time view with backlit wire mesh.

View from the inside.

View from the inside.

Colorful façade cladding of architectural wire mesh. Shands Children's Hospital, Gainesville, USA.

CREATIVE COLOR

NEW ROOM FOR ARCHITECTURE TO SHINE

W.S. Tyler Architectural Mesh is frequently used for the striking stainless steel optics it creates. With a large library of brilliant, customizable colors available, the potential for even brighter, more vibrant designs is enormous. These palettes, and the refined techniques used to create them, enable colored surfaces and complex designs to be applied across the entire material if desired.

Whether it's a logo or image for a cultural attraction, commercial center, or corporate headquarters, coloring provides the opportunity to create buildings with unique character. And the interactions between artificial light, natural daylight, transparency, and luminance gives the façade the freedom to constantly showcase new, dazzling colors.

BENEFITS AT A GLANCE:

Painting of Mesh Elements

The full or partial painting of W.S. Tyler Architectural Mesh facilitates the customization of durable, stainless steel wire mesh with a wide range of shades. Numerous metallic-effect shades are available together with well-known RAL colors.

Application of Logos

A partial painting of W.S. Tyler Architectural Mesh allows corporate lettering or individual logos to be placed on the façade, granting a visible presence from afar. Even large graphics can be set across the façade.

Digital Printing

Detailed images can be recreated and represented on W.S. Tyler Architectural Mesh using large-scale digital printing.

Non-Ferrous Metal Mesh

Depending on the installation conditions and required material properties, W.S. Tyler Architectural Mesh made of non-ferrous metals, such as copper, phosphor bronze, or brass, can be substituted for stainless steel.

Partially painted mesh elements. Los Angeles Police Department Car Park, USA.

Multicolored corporate lettering. Technolit, Grossenlueder, Germany.

Gaz Electricité de Grenoble, France.

Logo painting. Stauferklinikum Car Park, Mutlangen, Germany.

Metallic coating. Résidence Étudiante, Saint-Denis, France.

INDIVIDUAL GEOMETRIES

PERFECT IN ANY SHAPE

W.S. Tyler Architectural Mesh can be adapted to form almost any geometrical shape. Its high degree of dimensional stability allows larger areas to be completed as specified, from cubic to cylindrical forms, orthogonal to freely-designed elements, or straight edges to precisely-defined radii.
Creativity knows no bounds.

Three-dimensional shapes are created by using individual elements arranged as polygons. The use of pre-formed elements is also possible to achieve more complex shapes.

Three-dimensional canopy with individually-tensioned elements. Malaga Exhibition Center, Spain.

Wave-shaped façade cladding. Holland Park School, London, United Kingdom.

Corner segment with pre-rounded elements. Holland Park School, London, United Kingdom.

Three-dimensional mesh façade for cladding with a dynamic effect.

ADAC Yacht School, Mohnesee, Germany.

Freely-formed stainless steel mesh. De Baljurk, Kettingstraat, The Hague, Netherlands.

Multidimensional façade with mesh elements deflected by 19°. Júlia Center, Andorra la Vella, Andorra.

A high-quality, three-dimensional façade by W.S. Tyler is a dynamic mesh cladding, specialized for individual construction projects. The modular, three-dimensional system of substructure and ready-to-install elements provides façades with vivid, highly-recognizable appearances.

BENEFITS AT A GLANCE:

Individual Design

Individual elements can be produced from different W.S. Tyler Architectural Mesh types, enabling shapes and sizes to be crafted to meet the unique specifications for each project.

Custom Configuration

The extensive selection of W.S. Tyler Architectural Mesh types and the option of coloring offers almost unlimited freedom to designers on individual projects.

Sun Protection

Due to its semi-transparent geometric properties, W.S. Tyler Architectural Mesh is well-suited as effective external sun protection.

Project-Specific Substructure

Depending on the construction project, the substructure can be laid out in exclusively horizontal or vertical ways.

BUILDING REDEVELOPMENT

OLD AND NEW IN CREATIVE CONTRAST

W.S. Tyler Architectural Mesh is a powerful tool for modernizing or retrofitting existing buildings. As a modern design element, wire mesh fuses the old and new together. Whether it's acting as a second façade, internal cladding, or decorative screen, the mesh serves as the perfect finishing touch on a renovation.

DOGLA-TRIO blends the newly-added floor with the existing structure. Haver & Boecker, Oelde, Germany.

BENEFITS AT A GLANCE:

Visual Improvement
W.S. Tyler Architectural Mesh provides existing facilities with a fresh, contemporary appearance on a comparably modest budget. The original façade can be retained accordingly.

Uniform Enveloping
While the end result of refurbishing an older building can seem anachronistic or out-of-place, W.S. Tyler Architectural Mesh bridges generations by creating a uniform baseline that harmonizes its classic and modern elements.

Cladding and Protection
Historic sites can be effectively preserved using W.S. Tyler Architectural Mesh, protecting the structure from physical damage without obscuring the view of the façade. The protective impact can be perfectly calibrated to influencing factors by choosing a mesh type with the appropriate openings and transparency.

Before and after cladding on the Baden-Baden Congress House, Germany.

Small wire mesh elements clad the old brick structure. Shands Children's Hospital, Gainesville, USA.

A semi-transparent stainless steel mesh encloses the existing building and ensures natural lighting. C&A Eco Store, Mainz, Germany.

Cladding of medieval structures. Burg Vlotho, Germany.

Focus on natural ventilation and lighting with architectural mesh. Terre Sud Car Park, Bègles, France.

PERFECT FOR MULTI-LEVEL PARKING GARAGES

FROM FUNCTIONAL BUILDING TO DESIGN OBJECT

Wire mesh has revolutionized the design of parking structures, transforming dim, faceless buildings into well-lit architectural standouts. W.S. Tyler Architectural Mesh, made from high-quality stainless steel, offers various options due to its versatile properties.

W.S. Tyler Architectural Mesh isn't just a timeless aesthetic statement. It's a fully functional material, capable of meeting even the most demanding safety, stability, and weather challenges. Regardless of setting, the mesh ensures a bright atmosphere that melds design and transparency in unique, unforgettable fashion.

BENEFITS AT A GLANCE:

Ventilation and Lighting
The transparency of W.S. Tyler Architectural Mesh acts as a natural ventilation system. In addition, open space allows natural light to flow through the mesh and create a vibrant interior. As a result, artificial light sources can be reduced or removed, enabling increased energy savings and solutions

Weather Resistance
Whether it is frigid temperatures, scorching heat, frequent precipitation, or strong winds, W.S. Tyler Architectural Mesh thrives in all conditions. Due to its precise, coordinated open areas, the mesh filters the elements, contributing to a more comfortable interior climate. In the summer, the structure of the mesh produces impressive shading, screening the interior from direct sunlight.

Safety
W.S. Tyler Architectural Mesh is carefully crafted to remain robust, stable, and durable. As façade cladding or balus trade infill, it is designed to provide effective fall protection.

Individuality
With a wide range of different W.S. Tyler Architectural Mesh types and the ability to customize façades with images and logos, the creative design possibilities are limitless. An IMAGIC WEAVE® media façade is a fusion of stainless steel mesh and state-of-the-art LED technologies, transforming a parking garage into a dynamic, illuminating canvas for modern communication. The eye-catching IMAGIC WEAVE® media platform can even represent a source of revenue by displaying advertising.

Cost-Effective
A solid substructure is the sole requirement for attaching W.S. Tyler Architectural Mesh due to its upper and lower attachment points. Depending on the size of the mesh, this is enhanced by intermediate attachment points. Overall, the cost for the substructure and assembly are significantly lower than cladding façades with framed solutions.

Owing to its transparency, stainless steel mesh allows natural circulation of air.

Low Maintenance
W.S. Tyler Architectural Mesh is delivered ready-to-install and includes mounting equipment and detailed assembly instruction. Once installed, the façade cladding requires little to no maintenance.

Sustainability
The environment reaps some benefits from the use of W.S. Tyler Architectural Mesh. The mesh maintains an average recyclable proportion of at least 60% and, when finished, it is fully recyclable, creating not only an eco-friendly parking garage, but increased sustainability.

Sun protection combined with an unobstructed view from inside. Car park, Chesapeake, USA.

TRANSPARENT MEDIA FAÇADES

IMAGIC WEAVE® ID.

IMAGIC WEAVE® allows the display to form moving patterns and high-resolution video content in an endless range of colors and superb quality. The system has a modular structure and can therefore be scaled freely and adapted to any size and format. The content to be displayed on the façade is easily changed in the video server's timeline.

Unlike non-transparent systems, the video content shown has particular transparency depending on the lighting conditions and the surroundings, appearing to hover in front of the façade without completely obscuring it. In addition, the slim LED profiles are hardly noticed from outside and do not influence the uniform appearance of the facade.

IMAGIC WEAVE® transforms façades in urban spaces into striking communication platforms and can even be retrofitted onto existing mesh façades.

IMAGIC WEAVE® transforms buildings into multimedia communication locations. Stade Pierre-Mauroy, Lille, France.

BENEFITS AT A GLANCE:

Flexible Design
The mesh elements and LED profiles are manufactured to the exact dimensions of each specific project. The flexible attachment system allowsany surface sizes or challenging shapes to be fitted with IMAGIC WEAVE®.

Architectural Mesh Pattern
The choice of warp and weft wires, as well as the type of weave, creates different mesh geometries with specific optical and visual effects. Keeping in mind that each individual wire should not influence the directional characteristic of the LEDs, the adaptability is almost endless.

Uniform appearance
The slim LED profiles are attached to the rear of the mesh to provide the wire mesh façade with the typical appearance. The cabling is hardly visible from the outside, and the transparency from the inside is not adversely affected.

Coloring
Unlike standard black LED panels, the IMAGIC WEAVE® LED profile housing and the stainless steel mesh elements can be adapted with a variety of colors.

Clip-on Covers
To customize the overall look even more, the upper and lower side of the LED profile can be equipped with a clip-on cover which is available in many different colors.

Captivating by Day and Night
Thanks to a brightness of more than 10,000 nit (cd/m²), IMAGIC WEAVE® also creates superb visibility in daylight. The system's brightness is smoothly adjusted to the surrounding conditions by means of sensors.

Direction and Protection
All LEDs are equipped with a project-specific lens to adjust the directional characteristic (from 120°x120° to 60°x60°, for example) and increase the level of protection against environmental stress.

Weather Resistance
The system has been developed in accordance to IP 67; therefore, it is protected for both indoor and outdoor applications. Capable of withstanding temperatures of -22°F to +140°F it guarantees faultless operation as well as a high degree of weather resistance.

Longevity, Energy and Cost Efficiency
The latest LED technology brings together a high degree of luminosity, low energy costs, extreme longevity, and low maintenance outlay. çDynamically adjusting the brightness to the surrounding conditions also increases energy efficiency.

Control
With a state-of-the-art supplied control software, the media content is intuitive to control and change. The unique software features fault protection that protects the PSU in the event of exposure to hazardous conditions, such as temperature.

Easy Maintenance and Retrofitting
Clips technology and the push-pull connector system allow the LED profiles to be attached without problem and replaced quickly and easily on site, if required.

Individual Service
Our specialists offer worldwide support at every stage of planning - from conception through to implementation.

Eighteen different resolutions displayed on one façade. Júlia Center, Andorra la Vella, Andorra.

IMAGIC WEAVE® as indoor column cladding. Al Sadd Sports Club, Doha, Qatar.

IMAGIC WEAVE® as an information screen and 360° display ticker. Hypercube, Moscow, Russia.

MEDIALIZE YOUR IMAGINATION.
THE ALL-IN-ONE SOLUTION.

W.S. Tyler's high-quality architectural mesh has been combined with the latest LED technology to develop IMAGIC WEAVE® media façades. The result is a high-performance, versatile LED system which is embedded into the architectural structure of a building.

To guarantee the best performance with regard to color mixture, directional characteristic and brightness, the IMAGIC WEAVE® media façade system has been developed to incorporate the latest LED technology, which merges the former advantages of both SMT-LEDs (wide viewing angle, very good mix of color) and THT-LEDs (high degree of luminosity), creating a multi-purpose all-in-one product.

The LED profiles are available with a horizontal standard pixel pitch of 25 mm (0.98") and 50 mm (1.96") (other pitches upon request). The vertical pixel pitch is influenced by the geometry of the wire mesh, but starts at around 30 mm (1.18") and can be increased in increments of 5 mm (0.19"). As well as synchronous pixel pitches, asynchronous pitches are also possible (for example: 25 mm (0.98") x 65 mm (0.23"), 50 mm (1.96") x 115 mm (4.52") etc.).

If you want to be part of a smart city, where facades communicate with their surroundings instead of separate screens, then IMAGIC WEAVE® is your preferable media façade solution.

Close-Up: IMAGIC WEAVE® LED technology.

ILLUMINATION
LIMITLESS POSSIBILITIES

In combination with an IMAGIC WEAVE® media façade, it is possible to expand the visual area of the video content and transfer it to surrounding mesh façades using illumination. For example, a blue summer sky displayed on the media façade can automatically be extended to the remaining façade surfaces using a blue tone. The direct combination of illumination and IMAGIC WEAVE® allows three-dimensional effects to be created. Both techniques can be optionally operated together or separately from each other.
In addition, the illumination achieves further interesting effects by its ability to illuminate the IMAGIC WEAVE® media façade both from the front and behind.

For more information about IMAGIC WEAVE® transparent media façades and illuminating mesh façades go to www.imagicweave.com.

Mesh illumination. Haver & Boecker office building, Oelde, Germany.

Mesh illumination at 618 Market Street, Philadelphia, USA.

Mesh illumination and painted lettering, Technolit, Großenlüder, Germany.

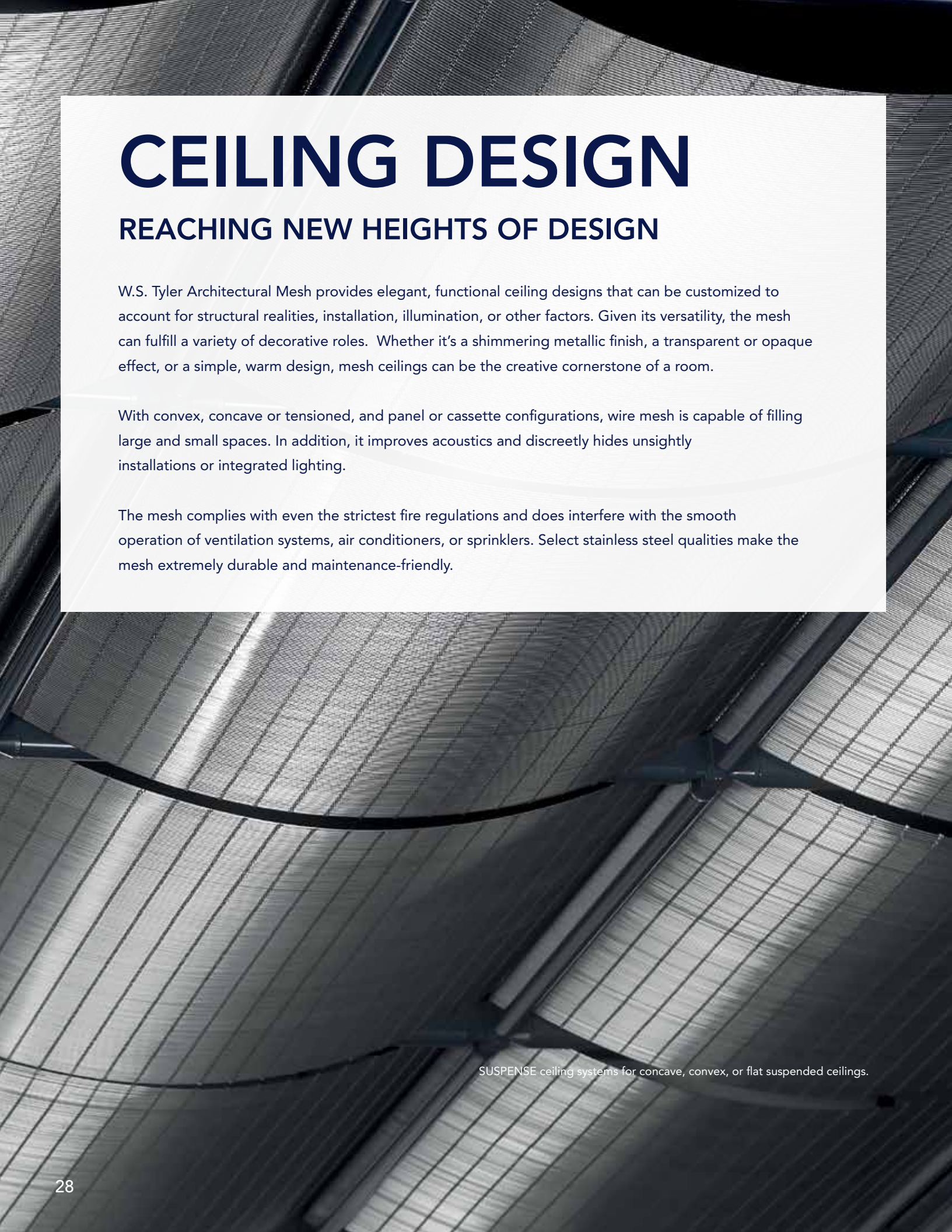
CEILING DESIGN

REACHING NEW HEIGHTS OF DESIGN

W.S. Tyler Architectural Mesh provides elegant, functional ceiling designs that can be customized to account for structural realities, installation, illumination, or other factors. Given its versatility, the mesh can fulfill a variety of decorative roles. Whether it's a shimmering metallic finish, a transparent or opaque effect, or a simple, warm design, mesh ceilings can be the creative cornerstone of a room.

With convex, concave or tensioned, and panel or cassette configurations, wire mesh is capable of filling large and small spaces. In addition, it improves acoustics and discreetly hides unsightly installations or integrated lighting.

The mesh complies with even the strictest fire regulations and does interfere with the smooth operation of ventilation systems, air conditioners, or sprinklers. Select stainless steel qualities make the mesh extremely durable and maintenance-friendly.



SUSPENSE ceiling systems for concave, convex, or flat suspended ceilings.

BENEFITS AT A GLANCE:

Superior Protection
W.S. Tyler Architectural Mesh is well-suited for cladding technical systems. The mesh protects equipment installed above the ceiling from physical damage and adds the effect of being almost hidden from view

Optimum Operations
The open area of W.S. Tyler Architectural Mesh guarantees the uninterrupted operation of technical hardware, such as ventilation or sprinkler systems. The apertures of the mesh can be adjusted according to the project's requirements.

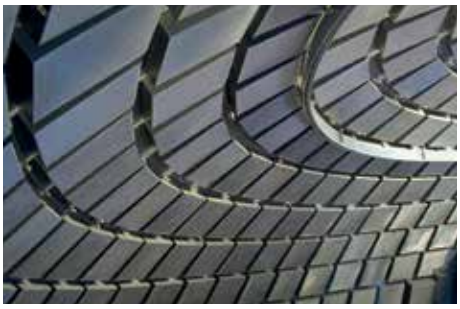
Individual Mounting Solutions
W.S. Tyler Architectural Mesh can be divided into flat, wave-shaped, tensioned, or adjustable elements. As such, the mounting can be individually customized to meet project specifications.

Acoustic Ceilings
The structure of W.S. Tyler Architectural Mesh disperses sound in all directions and serves as a high-quality support for acoustic materials.

Large Panels
In connection with a corresponding substructure, large ceiling elements can be designed with tensioned panels of W.S. Tyler Architectural Mesh.

Fire Resistance
Stainless steel W.S. Tyler Architectural Mesh is non-flammable and exceeds the requirements of even the strictest fire codes.

Curved ceilings. Bielefeld Town Theater, Germany.



Cassette elements with acoustic fleece. Print Media Academy, Heidelberg, Germany.

Ceiling made from framed mesh elements. Krasnodar Stadium, Russia.

Wire mesh as sun protection. Herne Bus Station, Germany.

Ceiling elements with sag. Terminal B, Dusseldorf Airport, Germany.

Functional ceiling cladding. Roissy/Charles de Gaulle Airport, Paris, France.

Architectural wire mesh guarantees the optimum operation of ventilation or sprinkler systems. Terminal S3, Roissy/Charles de Gaulle Airport, Paris, France.

AESTHETICS AND ATMOSPHERE

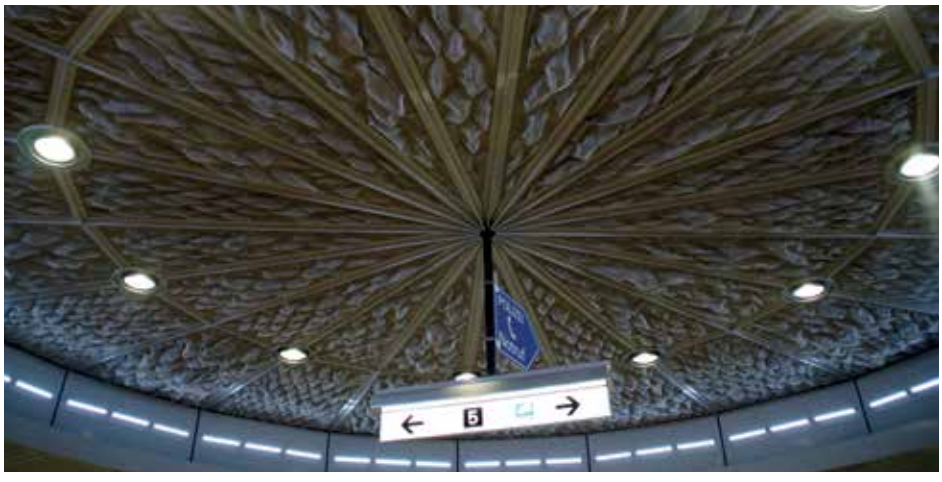
NEW FORMS OF EXCLUSIVE DESIGN SPACE

W.S. Tyler Architectural Mesh not only enhances spaces visually, but creates an exclusive, stylish atmosphere due to its impressive material and craftsmanship. The mesh fits into the architecture of any space and adds an expressive character with timeless elegance.

W.S. Tyler's comprehensive set of coarse, fine, flexible, or rigid mesh types alongside custom-made mounting solutions offer new options for individual concepts and plans.

Modern acoustic fleece behind an elegant stainless steel veil. Plenary Hall of the Reichstag building, Berlin, Germany.

Architectural Mesh for beautiful concert halls. Mount Royal University, Bella Concert Hall, Calgary, Canada.



Three-dimensional stainless steel mesh for improving the space's acoustics. Cologne light railway, Germany.

Ceiling elements. Krasnodar Stadium, Russia.

Wall design with architectural mesh at the University for Economics, Vienna, Austria.

WALL DESIGN

NEW SIDES TO INTERIOR ARCHITECTURE

Versatility, stability, and an aura of exclusivity make W.S. Tyler Architectural Mesh the ideal material for designing indoor walls. The interactions between surface structures, light reflections, and color effects offer architects and planners a plethora of options for combining the design of a space with reliable functionality. At the same time, the exceptional quality of the mesh material ensures longevity and satisfies safety regulations.

TEXTURA fine mesh partition wall. Amro Bank, Sydney, Australia.

BENEFITS AT A GLANCE:

Exquisite Appearance

W.S. Tyler Architectural Mesh imbues a space with a tasteful, timeless appeal. With appropriate lighting, the mesh serves as a highlight of meticulous interior design.

Protective Cladding

W.S. Tyler Architectural Mesh is superb for protecting sensitive technical equipment from physical influences without sacrificing aesthetics.

Ideal Ventilation

The permeability of W.S. Tyler Architectural Mesh guarantees the continued operation of ventilation systems. Depending on the requirements, the size of the apertures in the stainless steel mesh can be adjusted accordingly.

Mesh Panels

Similar to exterior façades, W.S. Tyler Architectural Mesh can be tensioned over wide areas on interior walls, providing uniform cladding and reducing outlay for the substructure.

Improved Acoustics

Due to its properties, W.S. Tyler Architectural Mesh disperses sound in all directions, acting as elegant cladding with effective materials for acoustic insulation.

Fire Resistance

W.S. Tyler Architectural Mesh is manufactured with non-flammable material and meets the most rigorous fire safety requirements.

Architectural mesh makes the walls of the proscenium at Luxembourg's Grand Theater shine.

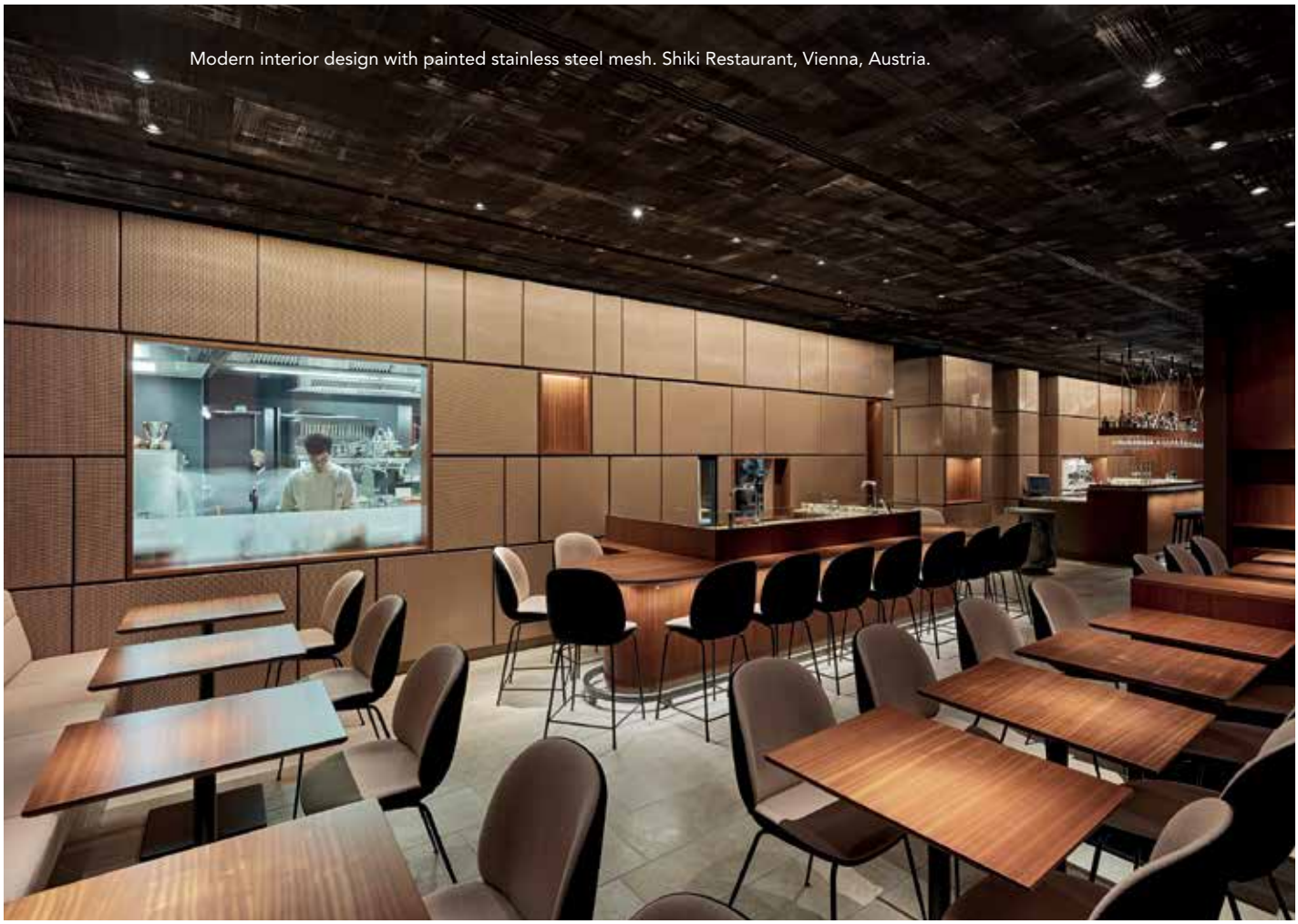
Cladding of technical systems. Terminal 2, Cologne-Bonn Airport, Germany.

Architectural mesh cassettes. Qatar National Convention Center, Doha, Qatar.

EXTRA SPACE

DESIGNING AND REFINING CONCEPTS

W.S. Tyler Architectural Mesh is the ideal material for designing interior surfaces. With a sleek, modern surface, its fashionable appearance complements its clear functionality. Illumination, through artificial light or daylight, creates fascinating reflections and structures on the surface of the mesh. As a result, the mesh is not just a perfect solution for luxurious spaces, such as congress centers or theaters, but as practical décor as staircase or wall coverings.

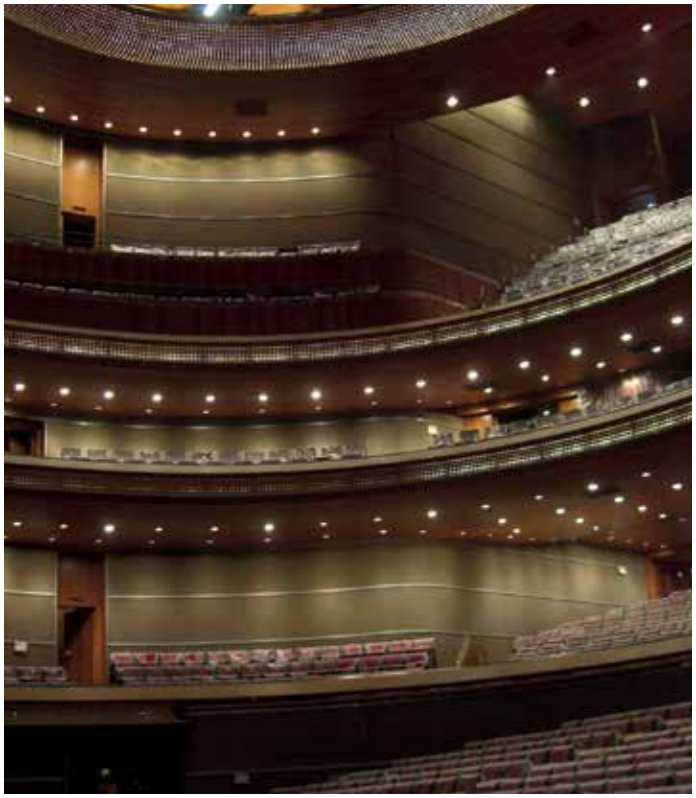


Modern interior design with painted stainless steel mesh. Shiki Restaurant, Vienna, Austria.

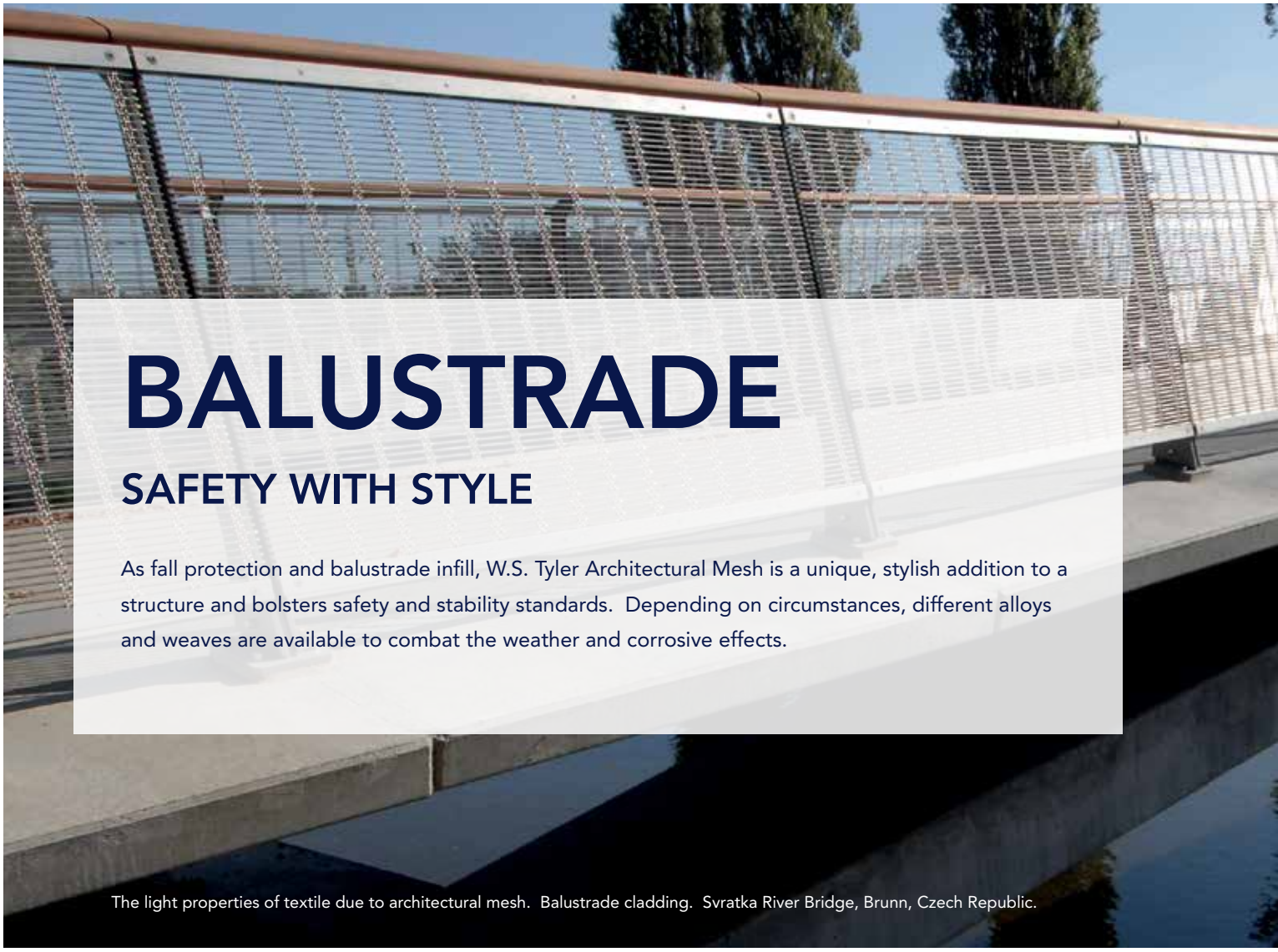
The mesh element's specific coloring underlines the exclusivity of the room. Qatar National Convention Center, Doha, Qatar.

Exclusive wall covering. Custo Barcelona, Spain.

Staircase wall covering. Lamton Hall, Guelph, Canada.



Golden mesh wall covering. National Grand Theater, Beijing, China.



BALUSTRADE

SAFETY WITH STYLE

As fall protection and balustrade infill, W.S. Tyler Architectural Mesh is a unique, stylish addition to a structure and bolsters safety and stability standards. Depending on circumstances, different alloys and weaves are available to combat the weather and corrosive effects.

The light properties of textile due to architectural mesh. Balustrade cladding. Svratka River Bridge, Brunn, Czech Republic.

BENEFITS AT A GLANCE:

Versatile Appearance
Despite the supplemental stability, W.S. Tyler Architectural Mesh adds lightness and the fine-tuned details of textiles to any balustrade. Due to its transparency and reflective stainless steel surface, captivating effects are created in combination with appropriate backlighting.

Semi-Transparency
When viewed from the side, W.S. Tyler Architectural Mesh appears to be closed, but open when viewed at a more direct angle, allowing scenic sights of the outside world while restricting glances from the street.

Stability
W.S. Tyler Architectural Mesh consists of high-tensile wires and reinforces the stability of the structure with a special attachment technique.

Longevity
W.S. Tyler Architectural Mesh owns an exceedingly long service life. The use of corrosion-resistant stainless steel makes architectural mesh a timeless highlight in terms of technology as well.

High-quality appearance with stainless steel mesh. Private residence, Toronto, Canada.

Stainless steel mesh as stylish balustrade infill. St. Michael's Hospital, Toronto, Canada.

Robust safety with architectural mesh. Passerelle du Centre Balexert, Geneva, Switzerland.

Light cascades across the structure. Bru Bridge, over the Kvina River, Norway.

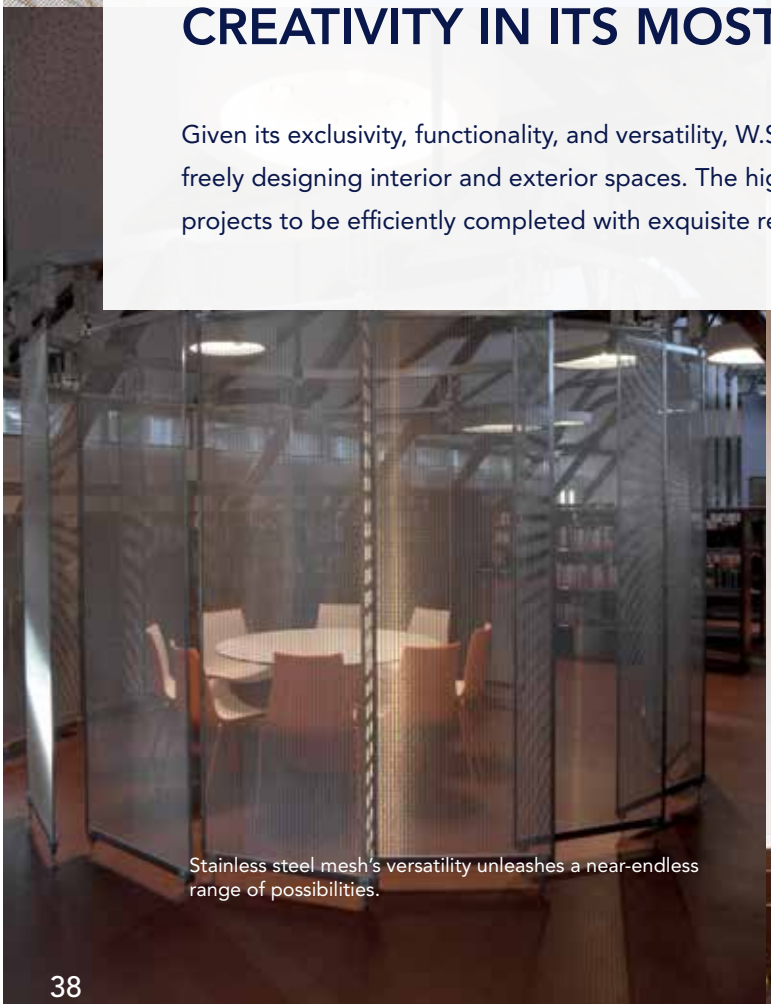
Semi-transparent balustrade infill. Malcolm Martin Platform, St. Louis, USA.

Stairwell cladding using two layers of architectural mesh to create moiré effect. McGill University, Montreal, Canada

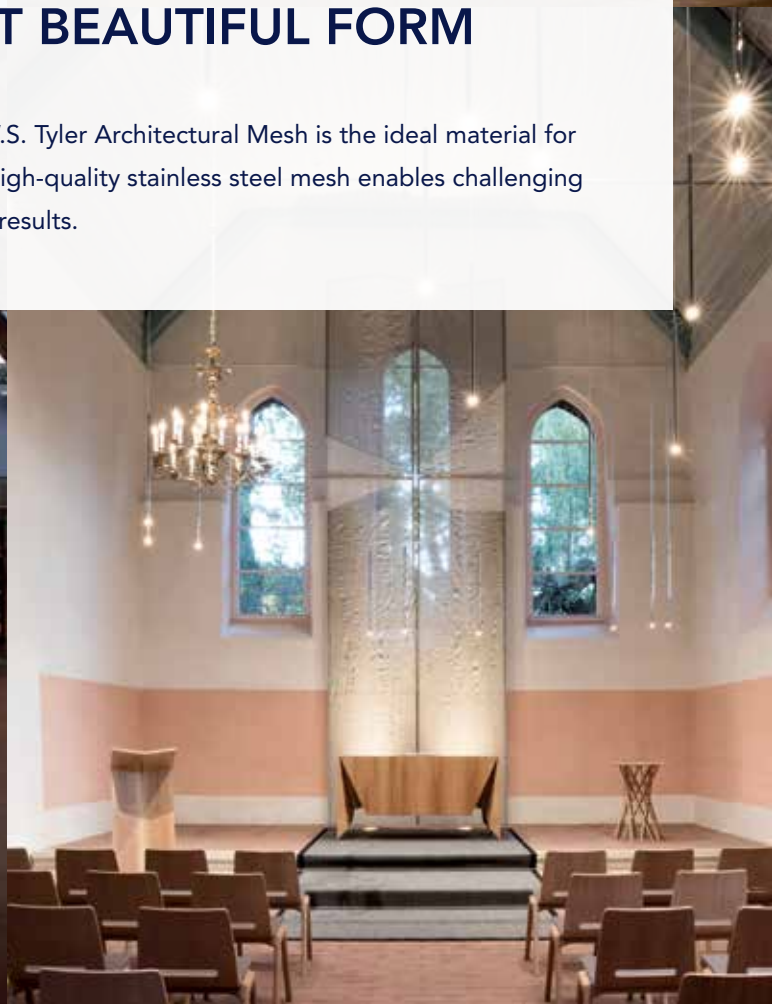
FREE CONFIGURATION

CREATIVITY IN ITS MOST BEAUTIFUL FORM

Given its exclusivity, functionality, and versatility, W.S. Tyler Architectural Mesh is the ideal material for freely designing interior and exterior spaces. The high-quality stainless steel mesh enables challenging projects to be efficiently completed with exquisite results.



Stainless steel mesh's versatility unleashes a near-endless range of possibilities.



BENEFITS AT A GLANCE:

Protection and Privacy

The selection of an appropriately dense weave type allows W.S. Tyler Architectural Mesh to be used as effective wind protection and privacy. Varying angles of view and lighting solutions constantly create new effects due to the structure of the mesh.

Exhibition and Construction

W.S. Tyler Architectural Mesh creates different zones without visually separating them. At the same time, it is suited for covering floors and walls or serving as a ceiling canvas. The light reflected by stainless steel mesh also allows targeted light control.

Aviaries

W.S. Tyler Architectural Mesh's robustness and transparency make it the perfect material for housing aviaries. Mounting solutions can be adapted to accommodate the exact shape of the aviary. The transparent effect of the wire mesh can be further enhanced with a specialized coating.

Design Objects

The varied properties of W.S. Tyler Architectural Mesh promotes an almost endless range of possibilities for designers. Wire mesh with can be molded into unique sculptures or used as a surface for everyday items.

Mesh with varying aperture widths. Mediathèque Chateaugiron, France.

Design object. Flora 2006, Montreal, Canada.

Changing room featuring architectural mesh. Mode-Boutique, London, United Kingdom.

Elevator shaft cladding with architectural mesh. Ulm Town Library, Germany.

Closed-mesh wire mesh as enclosure fencing. Parc Zoologique, Thoiry, France.

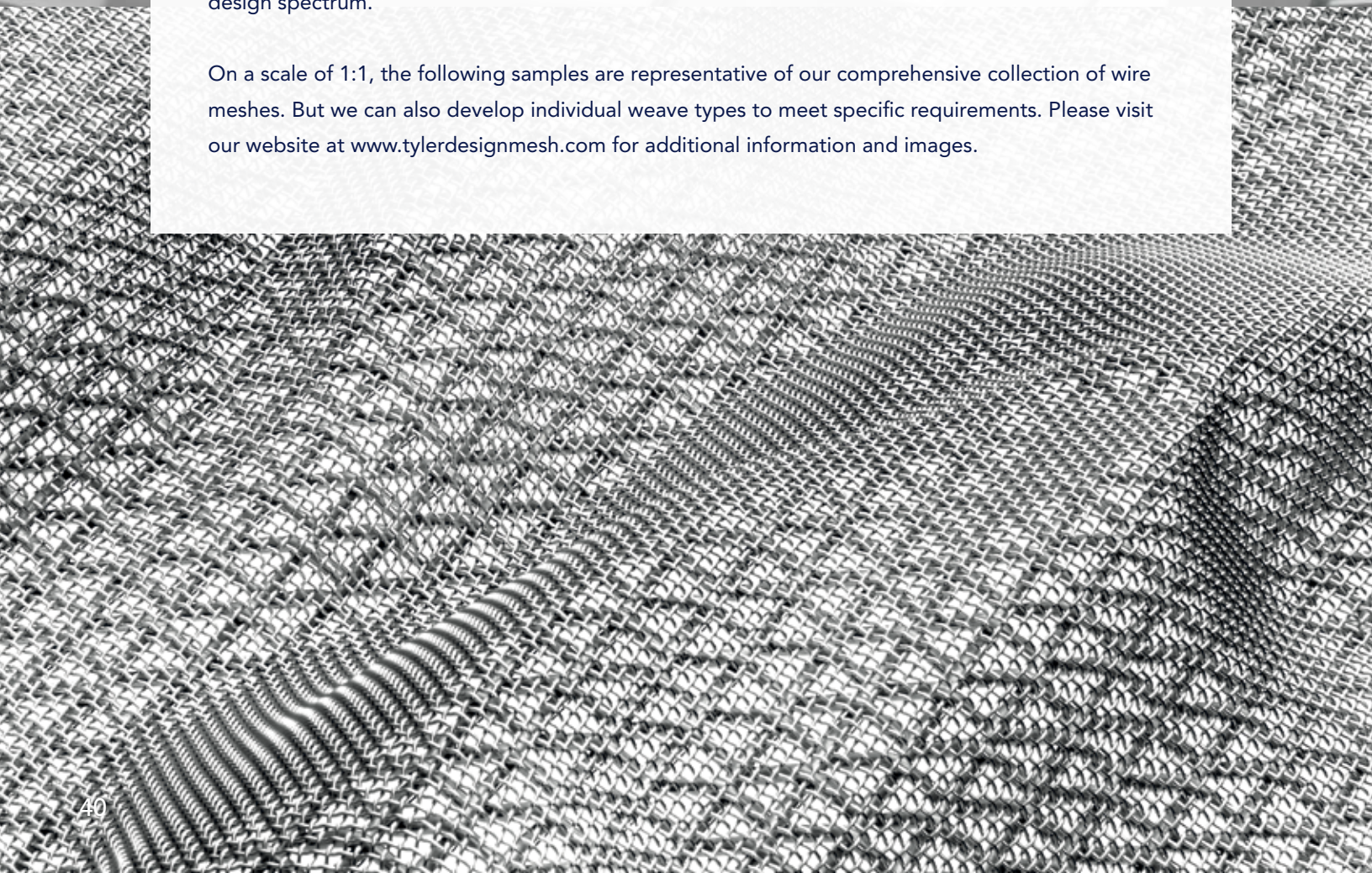
Shop design with architectural wire mesh. Paris, France.

ARCHITECTURAL MESH TYPES

PATTERNS OF DIVERSITY

The mesh patterns engineered and manufactured by W.S. Tyler for architectural applications are as diverse as the architecture itself. The choice of weft and warp, as well as weave type, result in the widest range of mesh patterns, each engendering a specific look and lighting effect. The use of various materials, such as glossy, silk matte, or colored mesh surfaces, further expand the design spectrum.

On a scale of 1:1, the following samples are representative of our comprehensive collection of wire meshes. But we can also develop individual weave types to meet specific requirements. Please visit our website at www.tylerdesignmesh.com for additional information and images.

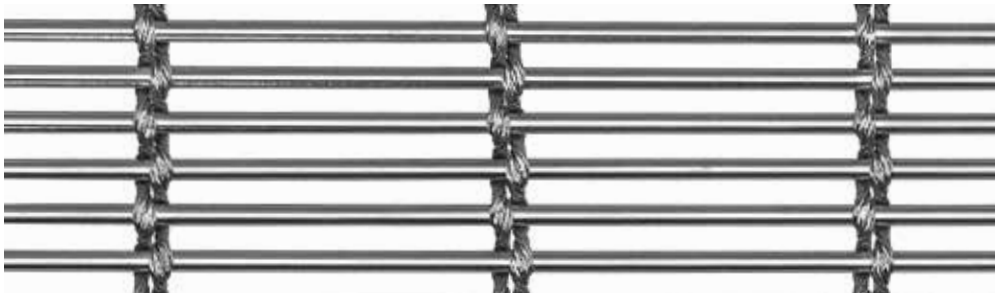


MULTI-BARETTE 8301

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
8.0	67

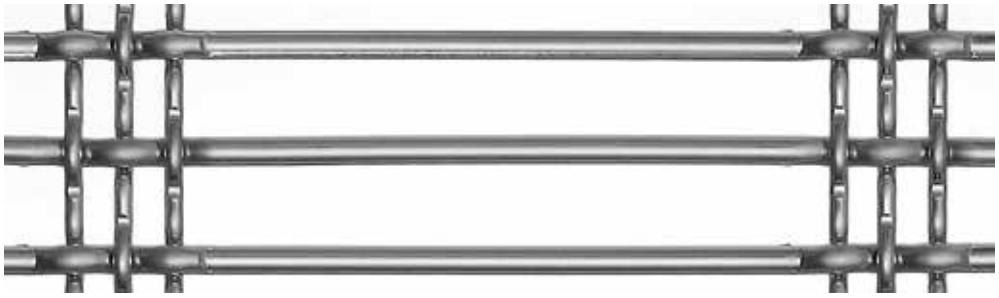
MULTI-BARETTE 8123

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.6	64



MULTI-BARETTE 8130

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
10.2	46



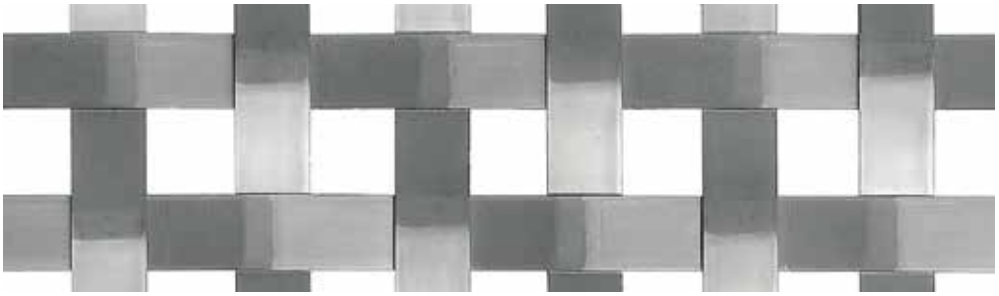
DOGLA-TRIO 1011

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
8.5	66

DOGLA-TRIO 1033

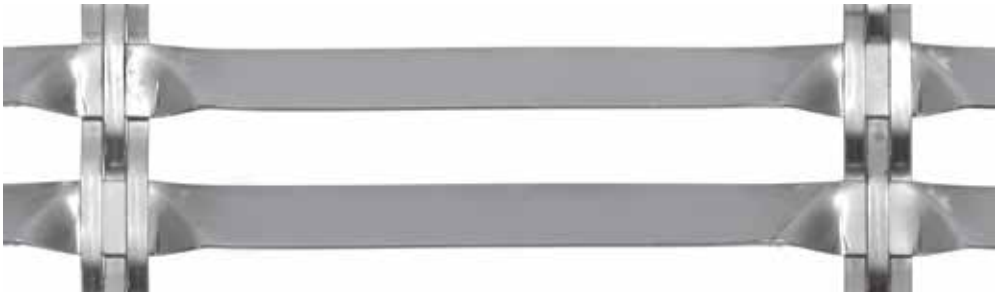
$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.5	67

[1] G=Weight, [2] A_o= Open Area



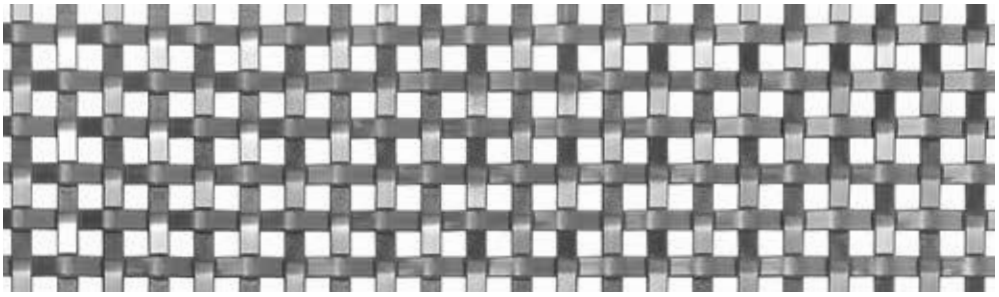
LARGO-PLENUS 2022

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
8.1	25



LARGO-TWIST 2045

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
5.5	38



LARGO-PLENUS 2027

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
8.1	25

EGLA-MONO 4631

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
7.3	58

EGLA-MONO 4391

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.2	52

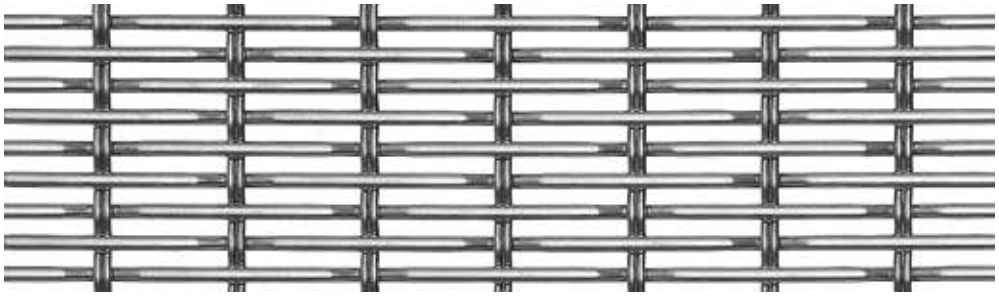
[1] G=Weight, [2] A_o= Open Area

DOKAWELL-MONO 3381

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.4	55

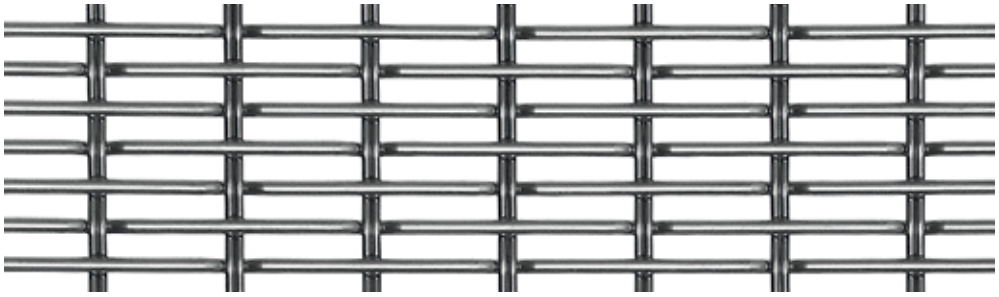
DOKAWELL-MONO 3601

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
5.3	52



EGLA-TWIN 4223

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
7.2	43

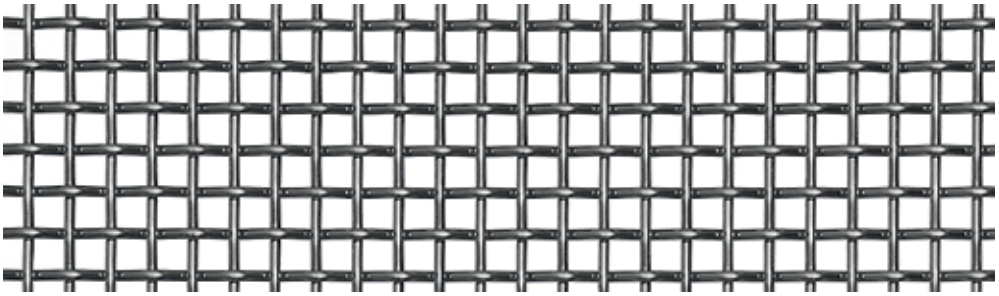


EGLA-TWIN 4253

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.0	51

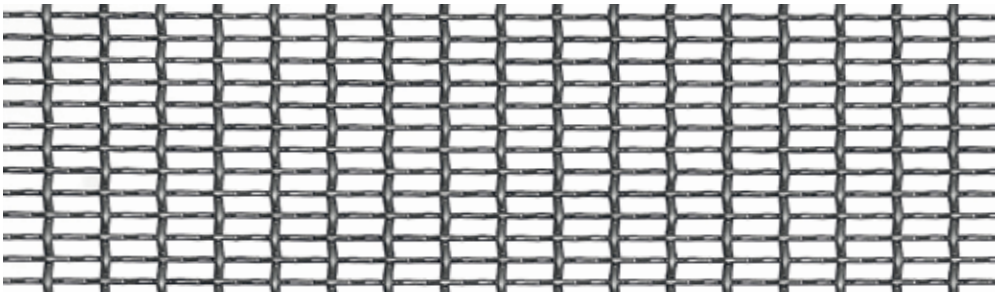
EGLA-DUO 4262

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.6	52



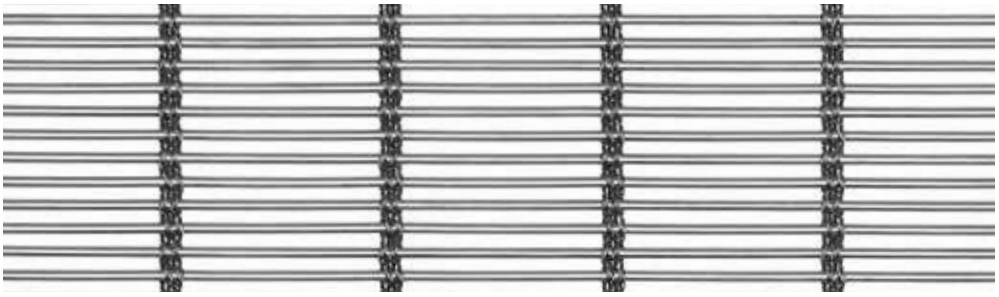
DOKA-MONO 1601

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
6.0	51



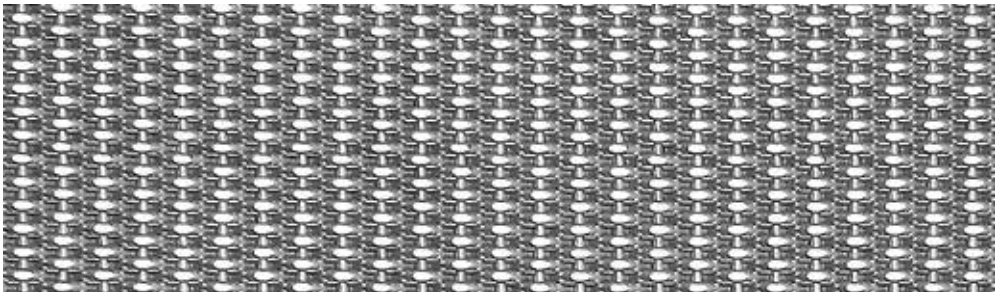
DOKAWELL-MONO 3001

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
3.2	56



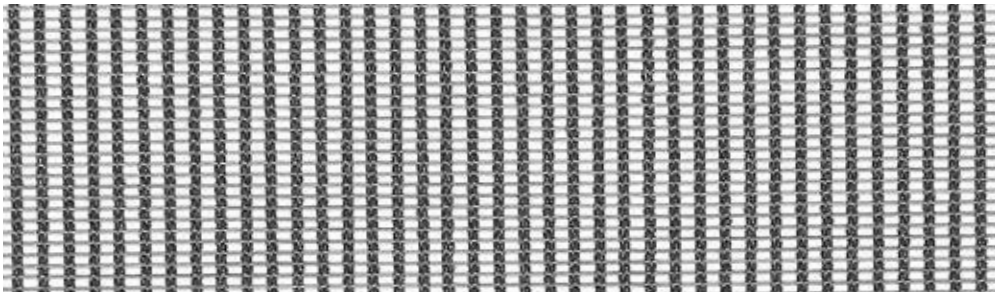
MULTI-BARRETTE 8106

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
5.2	45



DENSIS 5811

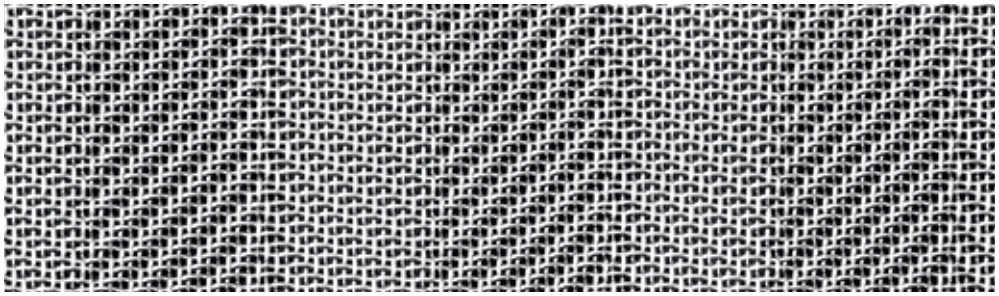
$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
13.6	-



MINIFLEX 8135

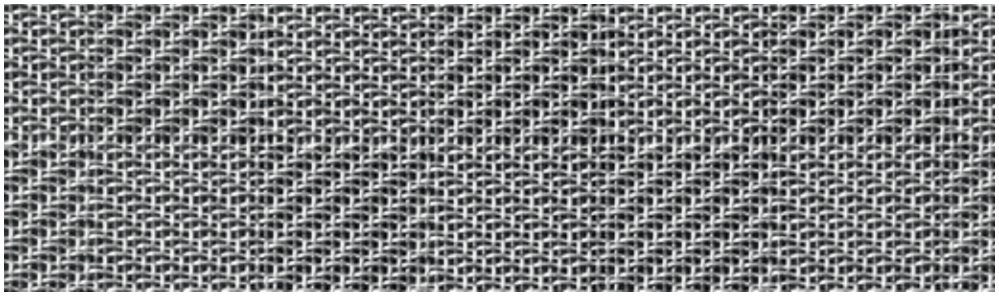
$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
2.1	39

[1] G=Weight, [2] A_o= Open Area



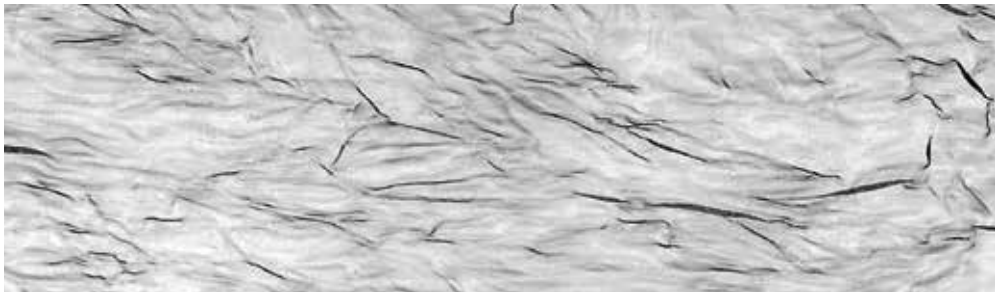
ALTERNA 6012

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
3.0	34



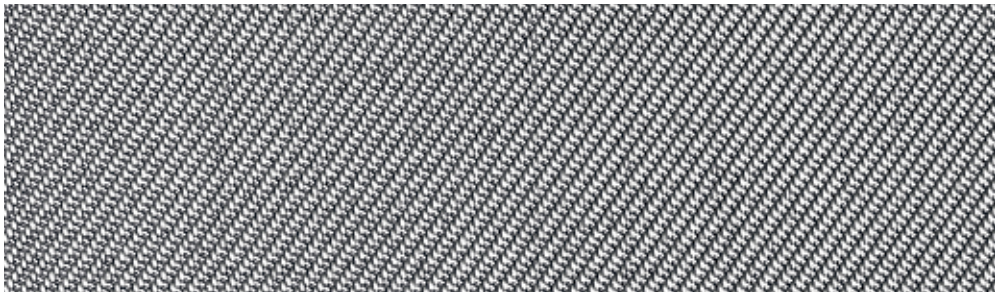
CHESS 6013

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
3.2	31



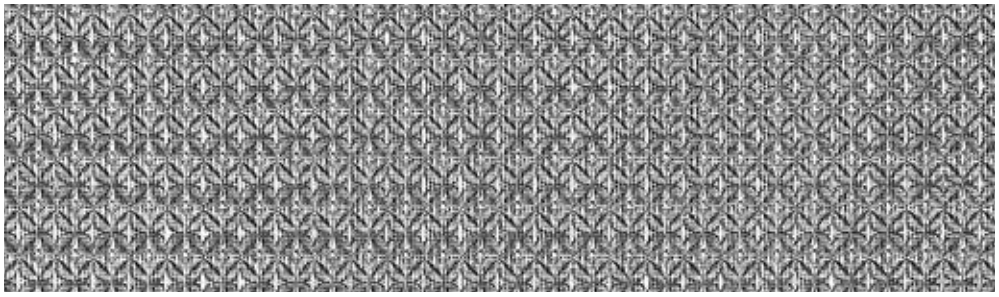
TEXTURA 1991

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
0.3	41



MULTIPLEX 9237

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
2.2	-



STRUCTURA 6501

$G^{1)}$ (KG/M²)	$A_o^{2)}$ %
1.1	22

MOUNTING

SECURE SOLUTIONS FOR INSPIRATIONAL INSTALLATIONS

Various edging and tensioning systems are capable of integrating the technical and visual aspects of W.S. Tyler Architectural Mesh into ceiling and façade design. These systems ensure simple, safe installation while maintaining the durability and integrity of the entire construction.

The following pages show a selection of the main options.
Please visit our website at www.tylerdesignmesh.com for further information about W.S. Tyler mounting solutions.

Façade Mounting – Wire Mesh

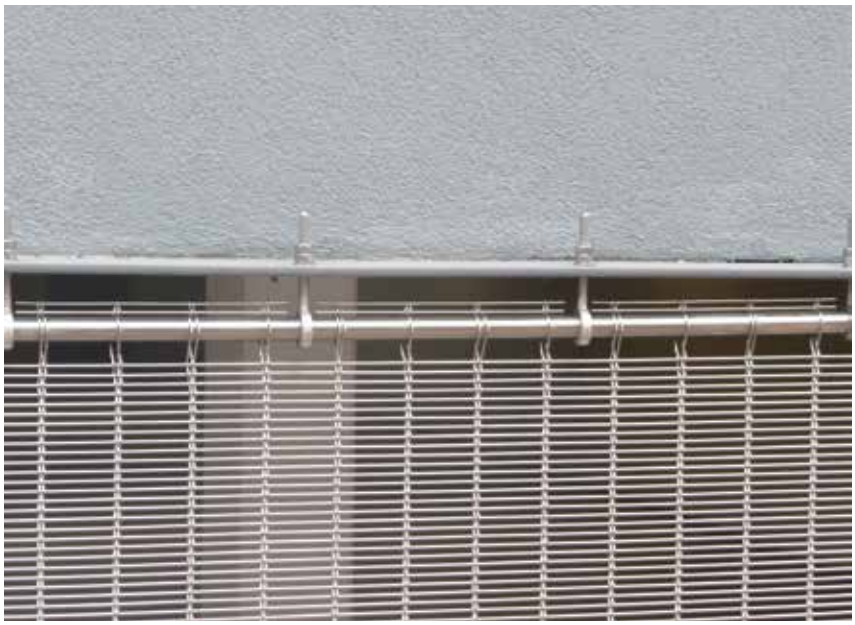
Mesh elements can be tensioned over several stories using flat tension profiles, clevis screws, and pressure springs. A solid substructure for absorbing the resulting load is required at the upper and lower face. Intermediate mounting is provided at floor level by means of a round tube and wire connectors running behind the mesh.

Top mounting: Flat tension profile and clevis screws.

Mounting solution for wire mesh façades.

Intermediate mounting: Round tube and wire connectors.

Bottom mounting: Flat tension profile, clevis screws, and pressure springs.



Top mounting: Round bar with eyebolts.

Intermediate mounting: Round tube and wire connectors.

Bottom mounting: Round bar with eyebolts and pressure springs.

Façade Mounting – Cable Mesh

Cable mesh can be tensioned over large areas using round bars and eyebolts.

For intermediate mounting, round bars and pendular clips are used. Round tubes and wire connectors are an alternative.

Mounting solution for cable mesh façades.

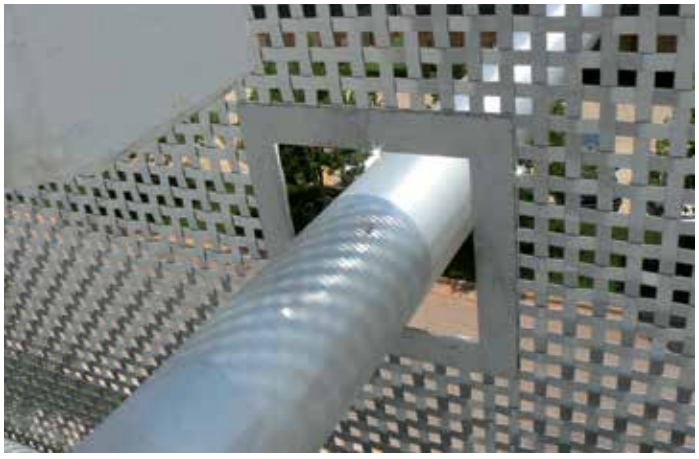
Façade Mounting – Special Shapes

Each project has its own specific requirements. Regardless of curves, angled edges, or cut-outs, special solutions are individually determined and implemented with contractors and planners.

Angled elevation.

Pre-curved elements.

Rounded edges.



Cut-outs in mesh elements.

Mesh with edge-protection profiles.

Ceiling Solutions

Whether tensioned across a wide area or arranged in removable elements, W.S. Tyler Architectural Mesh's ceiling solutions are designed to surpass a project's visual and technical requirements.

Fixed mounting system for ceiling with flat tension profiles and clevis screws.

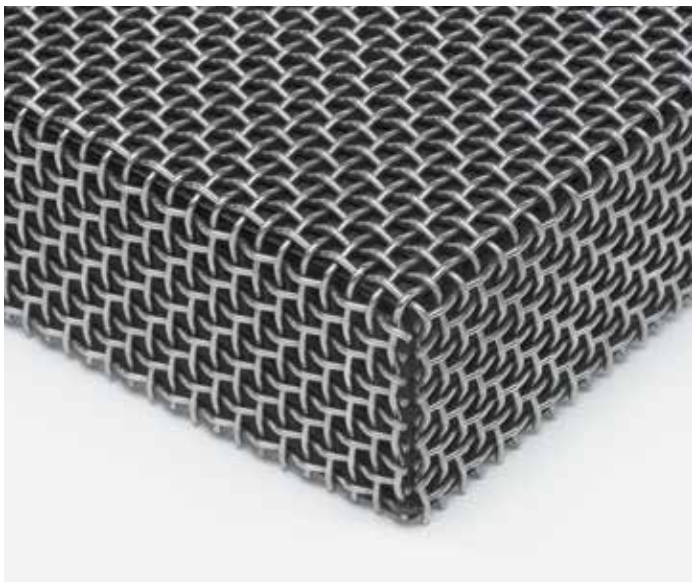
Adjustable mounting system for ceilings with sag.

Removable mounting system for ceilings without sag and with framed elements.

Frame Options

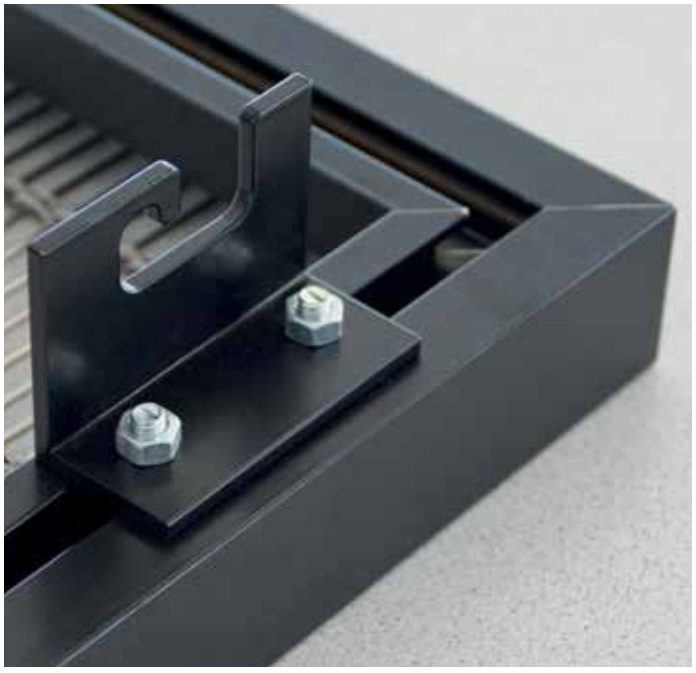
Various design options are available, empowering contractors and planners to select the ideal frame for their particular project.

Mesh with edges folded at 90°, welded to L-profile.



Mesh folded at 90° on all sides and fixed to a frame.

Mesh integrated into special aluminum frames.



Hanging options for framed elements.

Photos:
Angel Asenjo
Bruno Klomfar | Fotografie
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