

DATA SHEET: NUVO Mesh™ SC Security Mesh

Expanded Metal Solutions for Security, Screening and Infrastructure Protection



Overview

NuvoMesh™ Security Mesh is a family of expanded metal products engineered to provide physical separation, controlled access, equipment protection, and architectural screening in commercial, institutional, industrial, and infrastructure environments.

Manufactured through a precision expansion process, NuvoMesh creates a rigid, lightweight panel with integral strength and open-area performance. The result is a versatile material that can function as a security barrier while maintaining visibility, airflow, and design flexibility.

Whether used for perimeter protection, equipment enclosures, parking structures, or architectural facades, NuvoMesh delivers a practical balance of durability, transparency, and visual appeal.



Applications: Security & Access Control

- Security partitions
- Equipment cages
- Secure storage areas
- Service corridors
- Utility compounds

Critical Infrastructure

- Data centers
- Telecommunications facilities
- Electrical substations
- Water treatment facilities
- Transportation infrastructure

Architectural Screening

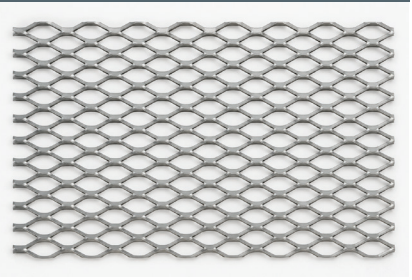
- Parking garage enclosures
- Building facades
- Stair towers
- Rooftop equipment screens
- Mechanical enclosures

Industrial Protection

- Machine guarding
- Safety barriers
- Process equipment protection
- Maintenance access zones

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PERFORMANCE ADVANTAGES

Durable Construction

Expanded metal is formed from a single sheet without separate welded components, creating a robust mesh structure capable of withstanding demanding environments.

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Airflow & Ventilation

Open mesh geometry promotes natural airflow, making NuvoMesh suitable for applications requiring equipment cooling or environmental ventilation.

Visual Transparency

The expanded pattern provides clear sight lines for monitoring and surveillance while establishing a physical barrier between occupied and restricted spaces.

Lightweight Efficiency

Compared to many traditional security barrier systems, expanded metal offers excellent strength while minimizing overall system weight.

Design Flexibility

Available in multiple mesh configurations, materials, and finishes to support both functional and architectural objectives.

Material Options

NuvoMesh Security Mesh is available in:

- Aluminum
- Galvanized Steel
- Carbon Steel
- Stainless Steel

Additional alloys may be available for project-specific requirements.

Finish Options

Available finishes include:

- Powder Coating
- PVDF Coating Systems
- Anodized Aluminum
- Hot-Dip Galvanizing
- Mill Finish
- Custom Architectural Finishes

STANDARD SECURITY MESH PATTERNS (Additional patterns available)

Pattern	Weight (lbs./sq. ft.)	Overall Thickness	Diamond Hole Opening
NVM .75-9F HM	2.38	.140"	0.6" × 1.7"
NVM .75-9F	1.57	.108"	0.6" × 1.7"
NVM .50-13F	1.26	.072"	0.3" × 1.0"
NVM 1.5-9F	1.05	.108"	1.0" × 2.7"
NVM .50-16F	0.77	.048"	0.3" × 1.0"
NVM .75-13F	0.67	.072"	0.7" × 1.8"
NVM 1.5-13F	0.51	.072"	1.1" × 2.8"
NVM .75-16F	0.47	.048"	0.8" × 1.8"
NVM 1.0-16F	0.38	.048"	0.8" × 2.2"
NVM 1.5-16F	0.35	.048"	1.1" × 2.8"

Design Considerations

When selecting a NuvoMesh pattern, consider:

- Required level of physical protection
- Desired transparency and visibility
- Ventilation requirements
- Structural loading conditions
- Corrosion exposure
- Finish performance requirements
- Project-specific code compliance

Project Support

Nelson works directly with architects, consultants, contractors, and facility owners to develop mesh assemblies tailored to project requirements.

Services include:

- Pattern selection assistance
- Custom panel fabrication
- Framing integration
- Finish recommendations
- Fabrication support
- Shop drawing coordination

Consult. Collaborate. Deliver.

At Nelson, we believe standard products should adapt to project requirements—not the other way around. NuvoMesh Security Mesh provides architects and owners with expanded metal solutions that combine protection, performance, and architectural integration.

Adapted Standards™

DATA SHEET: **Stainless Steel & RAL Color System**

Architectural finishing with Stainless Steel and Powder Coat colors

Metal surfaces have an appeal of their own that few other materials can compare to but it is no match for the environment without proper surface treatment. Since Nelson is a turn-key operation; finishing is an important part of our manufacturing process. Finish quality is the first impression that everyone sees and maybe the most critical part of what makes architectural metals so attractive.

For Products that require a wet paint or powder coating, a five-stage washing system is used to remove any residual oils and properly prepare the surface for maximum coating adhesion. With large batch painting and powder coating booths and a 10 ton overhead crane, even very large coatings and fabrications can be accommodated.

With a broad customer base and a wide range of fabrication capabilities, we are able to provide any level of service desired, all of which are backed by our ISO 9001:2015 certified quality management system.

FINISHING Processes

Grinding, De-burring, Polishing, Wet Painting, Powder Painting & Plating

Stainless Steel Finishes

Stainless Steel finishes are available in a number of patterns. Standards: #2, #3, #4 & #8 Mirror (Many more options available)

Color: RAL

Nelson's Architectural Metals Division uses the RAL Universal Color System as the color guide for standard project colors. We also have the ability to match any existing color or create a specific color when needed.

For additional information about our custom finishing and assembly services, contact us directly.

JUPITER SILVER

BRUSHED ALUMINUM

NON-DIRECTIONAL

SATIN BRUSH

#8 MIRROR

SANDSTONE

