AMICO

A GIBRALTAR INDUSTRIES COMPANY

SECURITY MESH™

TRANSFORMING MATERIALS

into products that make a better world

SECURITY MESH™ INSTALLATION POINTS

The intended use for Security Mesh is to create a penetration barrier behind drywall finishes. The mesh and method of attachment to the framing members, both vertical and horizontal, assures the integrity of the barrier. At this time there are no ASTM Standards addressing the use of AMICO Security Mesh as a penetration barrier. AMICO first introduced Security Mesh in 1989. Secura Clips were introduced in 1999 and patented in 2002. No other mesh of any type has been specifically manufactured, marketed and patented as a penetration barrier for partition walls.

Mesh Selection

AMICO offers Minimum, Medium, Maximum and Maximum Heavy Super Max mesh panels. Depending upon the overall level of security for the facility and other conditions such as response time by security or law enforcement, the style of mesh is to be determined by the owner or their representative.

Mesh Finish

Security Mesh is supplied "mill finish" HR P&O. No sealers or galvanizing is required for typical applications. We have learned through the years that in correctional installations adjacent to shower or kitchen areas, galvanized mesh is sometimes recommended. In some very unique situations stainless steel Security Mesh has been supplied.

Selection of Framing Members

For general installations using minimum, medium and maximum meshes, non-structural framing members shall not be lighter than 0.0359-in. (20GA). As the level of security increases so should the strength and thickness of framing members.

Framing Member Spacing

Generally, vertical framing members are set 16-inches on center. Horizontal ceiling members are set 24-inches on center. As the requirements for higher levels of security arise the spacing of vertical framing can be reduced to 12-inches on center. 12-inch stud spacing is frequently specified with the ASM .75-9F Heavy Modified.

Secura Clip™ Spacing

Standard spacing is 12-inches vertically per framing member for both vertical and horizontal surfaces. Clip spacing is often reduced to 6-inches on center when using Super Max mesh. AMICO Secura Clips are relatively thin, though made from very high carbon steel. The size of the clip is such that it will not interfere when securing mesh to bottom and top track, inside and outside corners, as well as any casing conditions. Secura Clip's recessed center hole allows a standard bugle head screw to seat at the surface of the mesh and does not create bumps on the surface of the finish.

Fasteners

Security Mesh shall be installed using Secura Clips. AMICO does not sell the clips without the mesh to assure the project is receiving the specified product as well as maintaining the desired level of security. Install clips to metal framing using bugle head self-tapping screws penetrating the framing member a minimum of 3/8-inch. With wood framing use 1-5/8-inch drywall screws allowing the fastener to penetrate framing a minimum of 1-1/2-inches. Secura Clips are the manufacturer's recommended method of securing mesh panels to framing. Welding mesh to framing is not necessary.

Mesh Installation

Security Mesh is installed directly to framing members using Secura Clips and then covered with the specified gypsum finish. Panels are flattened and lie flat between framing and finish. Most door jambs can allow for the thickness of the mesh, and it does not interfere with the installation of metal frame doors. Mesh panels shall be installed and securely attached to all framing members prior to the application of the finish. It is not acceptable to "hang" the panels and count on the drywall fasteners to secure the mesh in place. Mesh panels not securely attached to framing prior to application of finish can result in unwanted vibration with the hard close of a door. Make sure there is a jack stud at each corner or termination of a wall allowing for the mesh to be securely fastened in place. Panels can be butted or staggered; e.g. the closed diamond pattern allows for the diamonds to nest. In either case, use Secura Clips.

SECURITY MESH™

Security Mesh was developed and introduced by AMICO in the late 1980s as a penetration barrier for use behind drywall finishes. In 2002, AMICO patented the Secura Clip, making a system that designers and security professionals can count on to provide the highest levels of physical security.

AMICO Security Mesh has been installed for decades in government, commercial and retail buildings all over the world.

AMICO's patented Secura Clips complete the system. Clips have a recessed center hole allowing the Tek screw to seat at the surface of the mesh and not create humps and bumps alerting intruders to the penetration barrier. Secura Clips provide over 68% more holding strength than standard screws.

Gypsum finish is installed directly over Securty Mesh. No need for other materials for added intrusion protection. AMICO has supplied numerous projects requiring mesh to be attached to both sides of the framing members.

AMICO Security Mesh	Weight per sq. ft.	Overall Thickness	Percent Open Area
ASM .75-9F (HM)	2.38 lbs.	.140"	63%
ASM .75-9F	1.71 lbs.	.120"	63%
ASM .50-13F	1.40 lbs.	.070"	57%
ASM 1.5-9F	1.11 lbs.	.110"	77%
ASM .75-13F	.75 lbs.	.070"	73%
ASM 1.0-16F*	.41 lbs.	.048"	77%

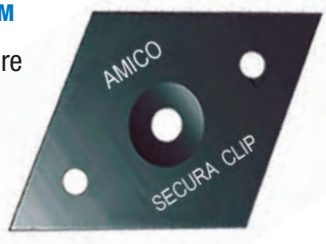
Tolerances: SWD = 0 + 1/4" per foot of dimension
LWD = 0 + 1/4" per foot of dimension

Stock sizes: 4' x 8' 5' x 8' 6' x 8'
4' x 10' 5' x 10' 6' x 10'

**4' x 8' panels only*

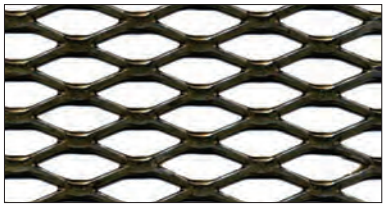
AMICO Secura Clips™

make any installation more secure by improving the holding power over standard drywall screws.



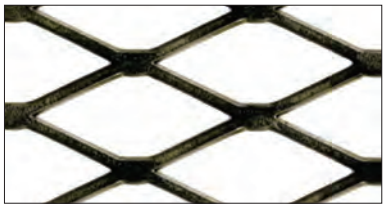
ASM .75-9F
Heavy Modified
Super Max Security for Industrial and Homeland Security applications

ASM .75-9F
Maximum Security

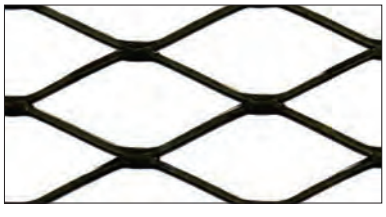


ASM .50-13F
Maximum Security

ASM 1.5-9F
Medium Security



ASM .75-13F
Medium Security



ASM 1.0-16F
Minimum Security

SECURITY MESH™

Standard panel dimensions are 4-ft short way of diamond by 8-ft long way of diamond. Security Mesh can be installed with panels running in either direction. Depending upon the ceiling height, panels can be installed by stacking panels to reach a desired height. Special sized panels are available. Depending upon style of mesh 4-ft x 10-ft , 5-ft x 8-ft and 5-ft x 10-ft panels can frequently be provided.

Sheets are flattened after their initial production into their diamond shaped pattern. Flattening is a cold forming process making the sheets larger than originally produced. It should be noted the actual size of a sheet of 4-ft by 8-ft is roughly 4-ft,1-in x 8-ft,1-in.

CAUTION

Cutting of panels may be required for installation. When these steel sheets are cut, the resulting open diamond is very sharp. Safety precautions are to be taken. Gloves and eye protection should be worn when cutting panels.

Cutting Mesh Panels

On site, panels can be cut with a commercial nibbler, hand-held grinding wheel or carbide tip blade in a circular saw. Hand shears are not recommended. When using the grinding wheel and circular saw, anticipate sparks being emitted. It is not recommended to have panels sheared to size since each sheet will have numerous very sharp open diamonds creating a transportation and jobsite hazard.

It is not recommended to overlap sheets while installing—especially the thicker styles since the overlap will telegraph through the finish. Architecturally this is not acceptable and from a security point of view one can see there is a barrier behind the wall. The element of surprise is a key reason the Security Mesh System works so well.

AMICO locations

UNITED STATES

Birmingham, AL
Bourbonnais, IL
Fontana, CA
Houston, TX
Lakeland, FL

800-4872511

CANADA

Burlington, ON
800-663-4474

Edmonton, AB
855-724-7283

Montreal, QC
800-463-3255

Vancouver, BC
800-665-4474

ASTM INTERNATIONAL ORGANIZATIONAL MEMBER

AMICO

A GIBRALTAR INDUSTRIES COMPANY

9/1/16 – 2,000