

HIGH-SECURITY WELDED WIRE MESH – THE NEW CHAIN LINK FENCE

A Case Study



International security expert and CEO of Panama-based Group CSC Andrew Mullen is not easily phased. For over 20 years, he has implemented security solutions in high-risk environments worldwide. But when the face of one of his security officers was crushed with a shotgun at his client's extremely well-protected manufacturing plant, Mullen immediately investigated alternative security solutions.

Mullen's client, a Fortune 500 company, needed to provide security for its employees and protect its investments. The 1,000 acre site had an extensive, traditional security system in place: chain link fencing; 70 uniformed guards, K9 units and sophisticated sensor lighting. Several attempts to break in over the years showed no signs of abating. The site had been victimized by ongoing intrusions, primarily by rogue individuals climbing over and cutting the existing chain link fence. After just one year, the existing chain link fence needed to be replaced due to multiple cuts and corrosion.

Mullen ruled out erecting cement walls for numerous reasons: the cost is prohibitive; security personnel can't see approaching threat, nor can potential intruders see patrols, thus defeating their presence as a deterrent. Cement also creates wind shear, which was problematic as the site is close to a local airport. And in the case of Mullen's client, the surrounding jungle made erecting cement walls a logistical nightmare.

While fencing is one of the most basic components of perimeter protection, Mullen knew there had been significant developments in this age-old line of defense; a fence is not just a fence by any other name.

Due to its relatively low cost, chain link fencing remains popular in the United States, but Mullen strongly believes standard chain link is more suited for safety than security defense. "The ease in which chain link can be breached, in a matter of seconds, highlights the incredible shortsightedness of installing low-cost chain link fencing as a secure perimeter defense solution."

Since most high-security facilities require some physical perimeter barrier system to control the access or delay the time required for forced entry, many organizations use a combinations of welded wire mesh, expanded metal and louvered panels which requires more sophisticated means of forced entry. After researching global trends, Mullen determined 358 high-security fencing wire mesh appeared to best meet the needs of his client. He reached out to a Massachusetts-based manufacturer of 358 high-security welded wire mesh for additional insight.

358 high-security fencing wire mesh, Mullen was told, has almost completely replaced chain link in Europe because it is virtually impossible to breach: it can't be cut, and there are no toe/foot holds. In addition, it is critical to utilize wire mesh that had been galvanized after being welded or GAW, in which an additional layer of molten zinc is applied to the welded steel joint. GAW wire mesh has a thick zinc coating bonded to the wire which completely protects and seals each welded joint and eliminates the risk of premature corrosion. GAW wire mesh products last 5x-10x longer than products galvanized before welding (GBW). A PVC coating will further enhance the products lifetime for variable climates and terrain, such as the humid, jungle environment of many of Mullen's clients. And Mullen knew the 358 wire mesh could be easily installed, expanded upon, moved, and taken down, for temporary manufacturing sites, which happened to be the case of his current client.

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358 mesh surrounds the perimeter of the U.S. Embassy in Panama; secures miles along the U.S.-Mexico border, the Kuwait border with Iraq, numerous military bases, nuclear power plants, transit systems, oil refineries, universities and airports. It is also an extremely cost effective way to build a secure barrier. The fences can be custom designed; single panels of can measure up to 50' tall by 10' wide. And fences can be installed to reach below the earth's surface to deter tunneling under.



Mullen concluded the best strategic approach to the installation included: 10-foot-tall WireWall fencing, topped with 4-strand barbed wire, installed with 1-meter wide anti-dig mats, and installed 12 inches underground, laterally to the fence to prevent tunneling. His U.S. contact coordinated the shipment, documentation and coordination of a total of 20 containers of wire mesh panels, along with posts, gates, barbed wire and fencing connections to the Port of Miami. All materials and required export documentation were then shipped via freighter to Panama.

2.5 miles of 358 high-security welded mesh was installed on the mountainous, jungle terrain around the perimeter of the property and in various interior areas of the site. The required security presence was reduced from 100 security personnel to 12, at a significant cost savings. No breaches in the fence have been recorded and the company believes "the 358 fence will more than pay for itself in less than two years due to the significantly reduced need for security personnel."

Group CSC: With over 2,000 employees located in seven countries, Groups CSC provides security in 182 countries for leading global manufacturers with facilities in the U.S., Asia-Pacific, Latin America and Canada. (www.groupcsc.com)

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