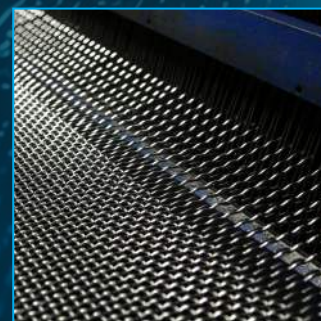
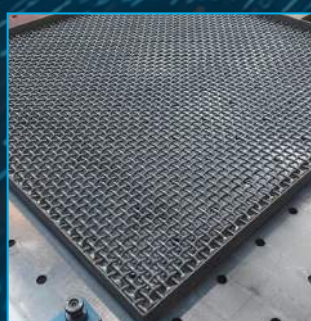
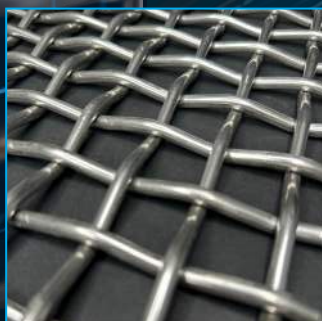


WIREWALL®

The Ultimate Physical Security | Graepels

Buy Direct, from the People who Make it.

CNC Perforating | Wire Weaving | Laser Cutting | Metal Fabrication



ISO 9001 Accredited by NSAI & UKAS | CE Accredited EN 1090

Servicing the Industry Since 1889 Est. 1959

WIREWALL®

Security Woven to Perfection

Wire Weaving Machinery capabilities

Architectural Woven Wire

The most flexible tooling in terms of perforating is the sectional tooling. With this type of tooling, Graepels perforate material ranging in thicknesses of 0.5 mm to 8 mm.

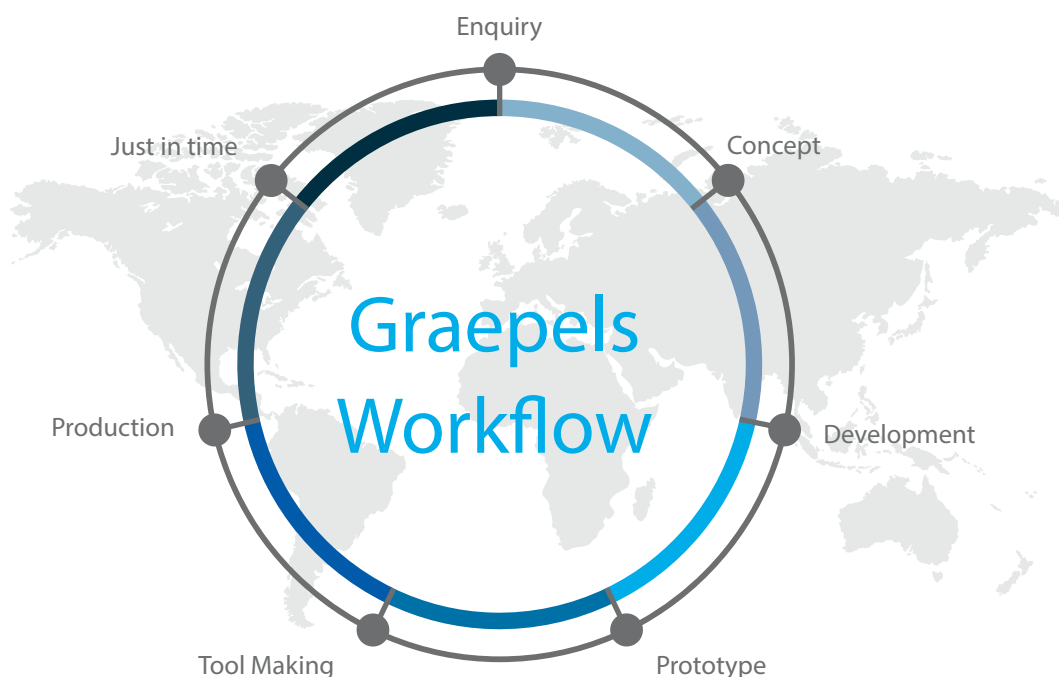
A vast range of shapes, perforation sizes, and patterns are available.

Industrial Woven Wire

For heavier sheets, our large sectional tooling is ideal. Large sectional tooling perforates sheets faster than small sectional tooling. This makes it ideal for standard specifications that do not require a great deal of flexibility in terms of shapes, patterns and other features.

Bespoke Mesh

For heavier sheets, our large sectional tooling is ideal. Large sectional tooling perforates sheets faster than small sectional tooling. This makes it ideal for standard specifications that do not require a great deal of flexibility in terms of shapes, patterns and other features.



Buy Direct, from the People who Make it.

Graepels Engineered Metal

Graepels expertise in perforated and woven metal solutions ensures delivery of high-quality, reliable products. Graepels SecureGaurd Mesh is offered in GRAE WW 030/130/QH and GRAE WW 050/120/QH. Graepels have the capabilities to manufacture custom solutions to meet specific customer requirements.

Applications of Wirewall

Server rack enclosures and partitions.
Cooling and ventilation panels.
Security barriers for restricted zone

Why Choose Woven Wire Mesh?

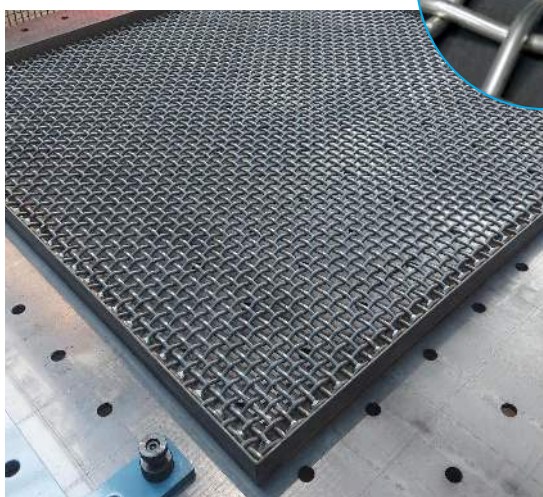
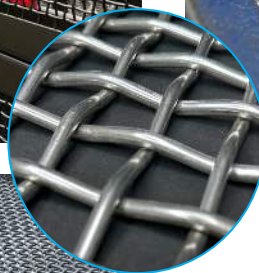
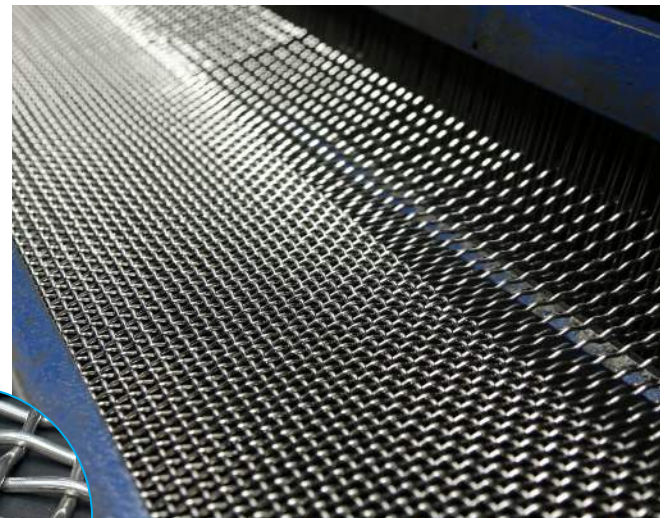
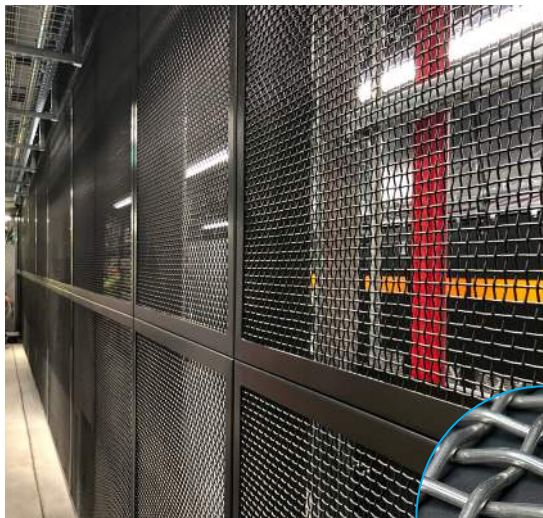
Strength and Durability: Woven wire is up to x3 times stronger than welded mesh.

Cost-Effective Solution: Provides stronger, more rigid panels with high open area, reducing the need for extensive framework.

High Open Area: Offers 65-90% open area for optimal functionality.

Material Options: High tensile, 304, and 316-grade stainless steel.

Panel Dimensions: Woven wire panels available up to 2500mm wide with preferred heights customizable.



Why Choose Graepels?

Customisable & Scalable

Available in various weaves, patterns, and coatings to meet specific design and security needs.

Can be tailored for modular enclosures, raised floor systems, and partitioning within data centres.

Durability & Strength

Made from high-tensile steel, stainless steel, or aluminum, providing long-term structural integrity.

Resistant to corrosion, impact, and tampering—essential for high-security environments.

WIREWALL®

Security Woven to Perfection

Calculating Open Area and Weight

When selecting woven wire mesh for applications like data centres, it's essential to consider both the weight and open area to ensure the material meets performance and functional requirements. See the below formula for weights and open area. For more information on capabilities or bespoke work contact the Graepels team directly.



Calculating % Open Area of Square woven mesh

To calculate the open area of square mesh, use the following formula:

$$\frac{(\text{Aperture} - \text{Wire Diameter})^2}{(\text{Aperture})^2} \times 100 = \% \text{ Open Area}$$

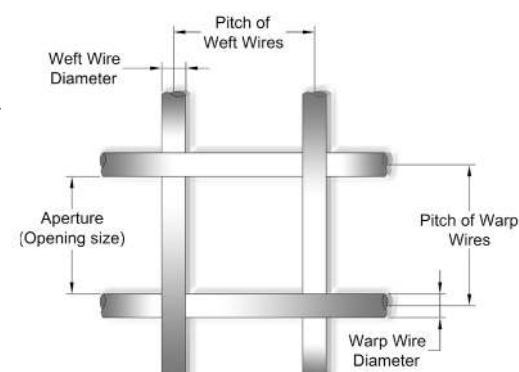
Information Key & Terminology

(A) Aperture: Mesh Opening
(D) Diameter: Thickness of the wire
(P) Pitch: Wire Spacing (centre to centre of the wires)
Warp Wire: The tensioned wire that runs parallel (running the length of the material)
Weft Wire: The wire woven perpendicular through the warp wire (running the width of the material)

Weight Per m²

$$W/m^2 = \left(\frac{\pi}{4} \cdot d^2 \cdot n_w + \frac{\pi}{4} \cdot d^2 \cdot n_l \right) \cdot \rho$$

- d : Wire Diameter
 n_w : Number of warp wires per meter
 n_l : Number of weft wires per meter
 ρ : Material density kg/m³
 $\frac{\pi}{4} d^2$: Cross sectional area of a single wire





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