

EXPANDED METALS

MANUFACTURED BY WALLNER EXPAC

Strong, lightweight, and visually appealing, the purposes of expanded metal are to conceal, filter, enclose, protect, and decorate. Wallner Expac, a 100% employee-owned company and North America's largest manufacturer of light gauge expanded metals for HVAC, also manufactures standard and decorative expanded metals for use in many applications.

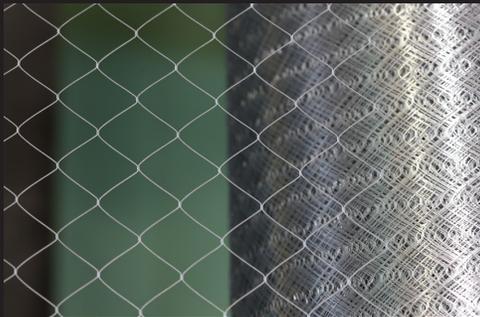


THE WALLNER EXPAC ADVANTAGES

Engineered to precise specifications in our US-based ISO-9001 certified plants, a coil of metal is unwound and fed into our own designed and built expanders between a set up upper and lower knives. Instead of punching the metal, our Shear-Form® service of manufacturing expanded metal simultaneously slits and stretches the metal. This results in pattern uniformity, a high surface area-to-volume ratio, and has no points that can separate— all crucial for strong and lightweight material. It also yields little to no waste. Additionally, since it is slit and stretched, a greater amount of expanded metal from the raw material is produced.



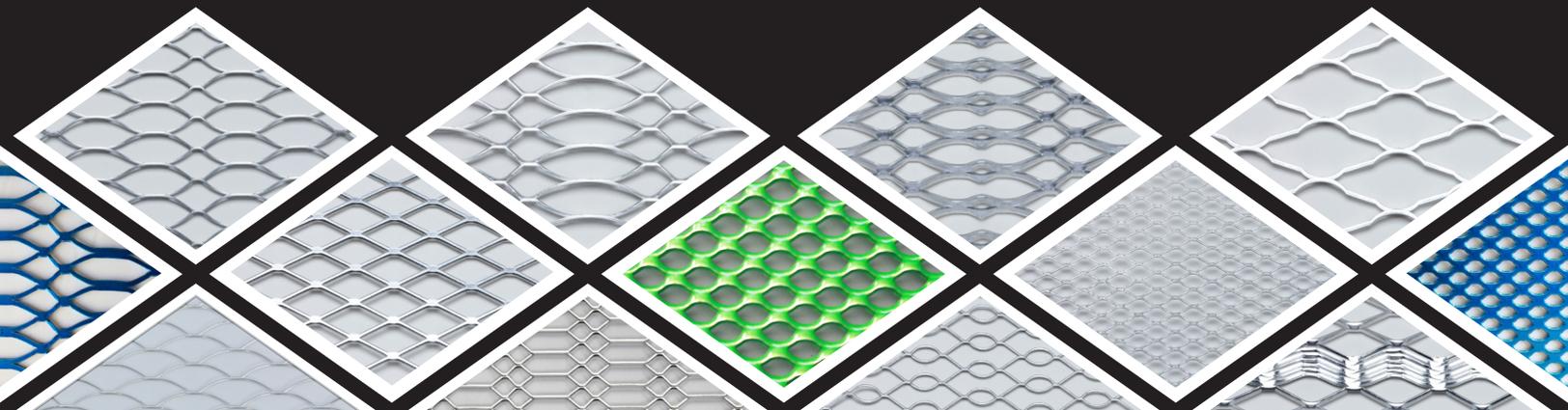
By its very nature, expanded metal has an open area percentage and high strength-to-weight ratio, both of which can be optimized to meet your needs. The openings can be enlarged or reduced by modifying the strand pitch and width— essential for controlling the amount of light, air, sound, or fluids that can pass. Smaller holes provide privacy, keep out insects or animals, conceal substructures, and provide protection from dangerous machinery. Larger holes allow light and air to circulate. Adjusting the pitch and width of the strands can provide a louver effect by controlling how much light can pass and limit views from a direct line of sight. It can restrict pedestrian access by enclosing a dangerous area such as a construction site. The strands and bonds can also be flattened to produce a smooth and flat surface, reducing the overall thickness, and elongating the pattern.



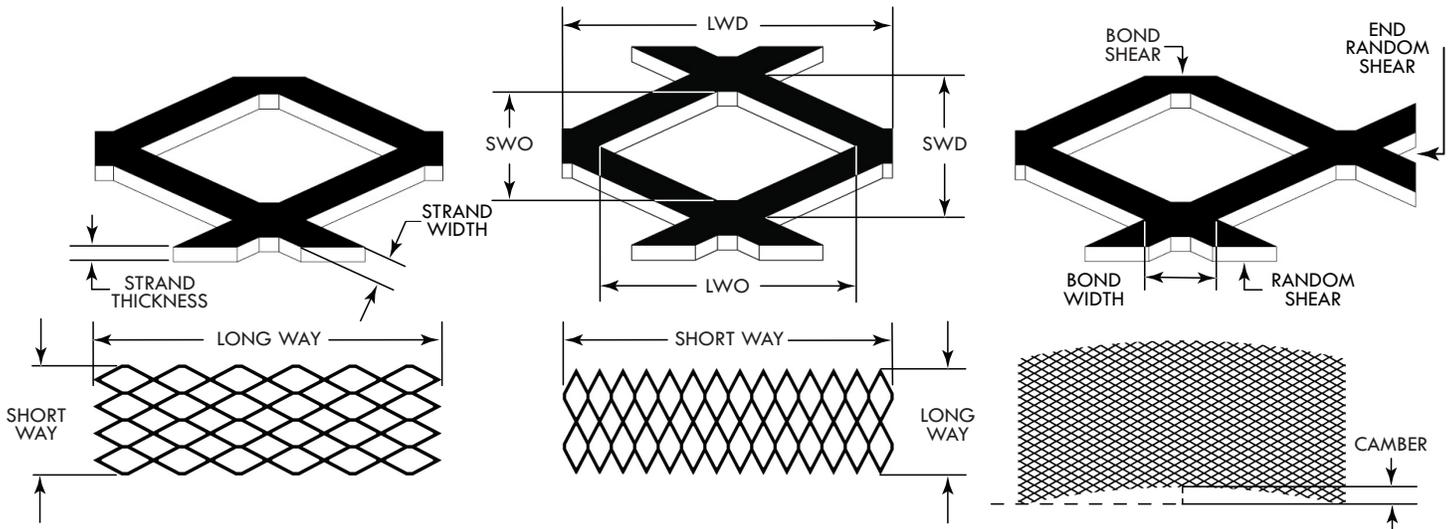
Because we design and build our own expanders, we can tightly control the manufacturing process and fine tune all specifications. Our scalable manufacturing lines and responsiveness allow us to rapidly produce expanded metals with tunable parameters to meet your specifications.



(909) 481-8800
California ♦ Georgia ♦ Texas
WWW.EXPAC.COM



CAPABILITIES AND PARAMETERS



EXPANDED METAL PARAMETERS

- ◇ Widths up to 48"
- ◇ Base material thicknesses up to 0.075"
- ◇ LWD up to 5.00"
- ◇ Metals: Aluminum, Steel, Copper, and more
- ◇ Paint, Powder Coat, Mill Finishes

Our state-of-the art, on-site tooling facilities fully support our manufacturing with post-production services including:

- ◇ Wire EDM
- ◇ Surface and OD grinding
- ◇ Precision inspection equipment
- ◇ CNC machining, lathes, radial drills
- ◇ Annealing, Stamping, Forming, Flattening,
- ◇ Stamping, Forming, Flattening, Slitting, Welding
- ◇ Engineering & Design, creation of customized patterns

APPLICATIONS FOR EXPANDED METAL

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|--------------------------------|---------------------|
| ◇ Architecture & Construction | ◇ Food/Culinary |
| ◇ Filtration & Microfiltration | ◇ Agriculture |
| ◇ Home Improvement | ◇ Automotive |
| ◇ Battery Technologies | ◇ Medical |
| ◇ Arts & Crafts | ◇ Oil & Energy |
| ◇ Lightning Strike Protection | ◇ Solar Panels |
| ◇ Skylights & Fall Protection | ◇ Safety & Security |

EXPANDED METAL TERMINOLOGY

- ◇ LWD: Long Way of Diamond/Design dimension.
- ◇ LWO: Long Way of Opening dimension.
Used to indicate clear opening in the long direction.
- ◇ SWD: Short Way of Diamond/Design dimension.
- ◇ SWO: Short Way of Opening dimension.
Used to indicate clear opening in the short direction.
- ◇ STRAND THICKNESS: Equal to the thickness of the sheet metal being used.
- ◇ STRAND WIDTH: The amount of metal fed under the dies to produce one strand.
- ◇ BOND SHEARED: Where two strands intersect, eliminating prongs or jagged edges.
- ◇ RANDOM SHEAR: This type of shearing leaves prongs or jagged edges.
- ◇ END RANDOM SHEAR: This type of shearing leaves prongs or jagged edges on the ends.
- ◇ CAMBER: The maximum distance between the edge of the expanded metal and the straight edge