



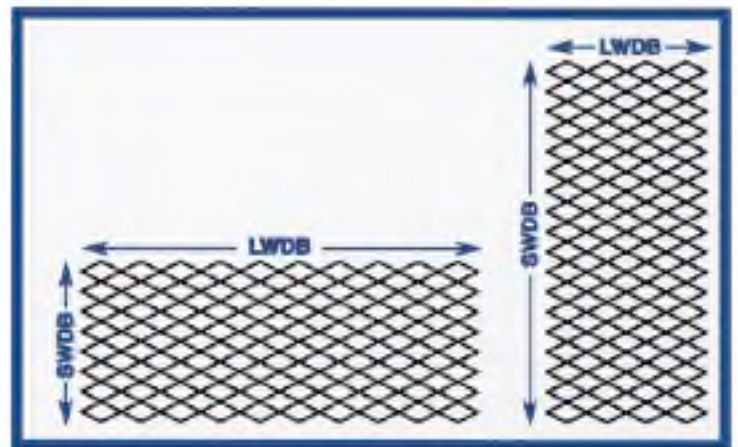
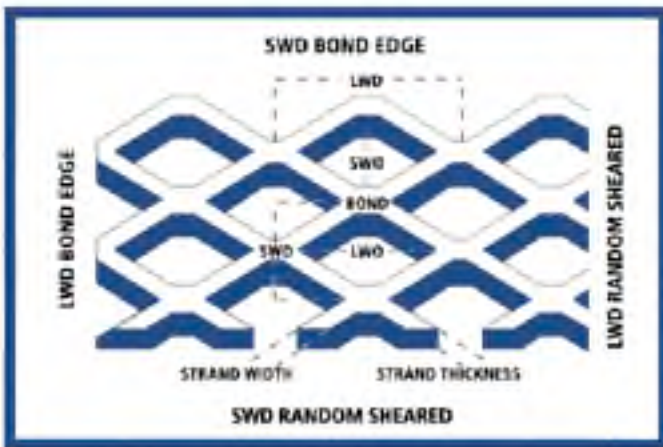
SPANTEK
EXPANDED METAL

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TECHNICAL GUIDELINES AND GENERAL TOLERANCES



GLOSSARY OF EXPANDED METAL TERMS

SWD — Short Way of Diamond of a single diamond.

LWD — Long Way of Diamond of a single diamond.

SWDB— Nominal Dimension, Short Way of Diamond Design for an expanded metal Blank.

LWDB — Nominal Dimension, Long Way of Diamond Design for an expanded metal Blank.

SWO — Short Way of Opening

LWO — Long Way of Opening

Strand Width — The dimension associated with the width of one strand.

Strand Thickness — Gauge thickness of base metal when in the unflattened state. Approximately 10% less than base metal thickness when in flattened state.

BOND — The solid intersection of two strands.

BOND Edge — Manufactured closed perimeter diamond.

Sheared Edge — Manufactured random cut diamond. May leave prolong or jagged edges.

Flattened Expanded Metal — Expanded metal that has been cold-rolled after expansion, to provide a smooth, flat, and level sheet. Flattening reduces the thickness of the base metal by approximately 10%.

Unflattened Expanded Metal — Expanded metal as it comes from the press. The strands and bonds are set at a uniform angle to the plane of the sheet.

Blank to Size — Custom sized expanded metal part based on the customer's dimensional requirements.

Coil Product — Expanded metal product provided as one continuous coil rather than in individual parts.

Percent Open Area — The total open area of an expanded metal blank or coil. **To calculate Percent Open Area:** take two times the strand width, divide by the SWD and then take the inverse number.

EXPANDED METAL PROCESSING CONSIDERATIONS

- The untreated surface condition of the expanded metal will exhibit raw material and processing oils and residue.
- The four end diamonds of a rectangular sheet of flattened expanded metal will normally exhibit a reduced SWD dimension.
- The only way to achieve an expanded metal blank with perfect squareness is to re-shear the blank on all four sides.
- Strand width and thickness can be varied to create different diamond openings, this changes the open area percentage in a pattern. The width of the strand should exceed the thickness of the strand. Ideally, the strand width dimension should be approximately two times the strand thickness dimension.
- Coil product is normally produced in 1000 to 3000 linear foot coils.
- Large blanks will normally have some camber along the SWD dimension of the blank. Camber is measured as the deviation from SWD edge of a part to a corresponding straight edge surface.

GENERAL TOLERANCE GUIDELINES

- **LWDB TOLERANCE**

<u>RANDOM EDGES</u>	<u>BONDED EDGES</u>
0" to 48" (+- 1/16")	0" to 48" (+- 1/8)
48" to 72" (+- 1/8")	48" to 72" (+- 1/4")
- **SWDB TOLERANCE**

<u>RANDOM EDGES</u>	<u>BONDED EDGES</u>
0" to 48" (+- 1/16")	0" to 48" (+- 3/16)
48" to 72" (+- 1/8")	48" to 72" (+- 1/2")
- **THICKNESS TOLERANCE**

<u>GAUGE</u>	<u>TOLERANCE</u>
20 to 26	(+- .004)
14 to 18	(+- .006)
6 to 13	(+- .009)
- **SHEAR CUT TOLERANCE**

Random Edge 96" or less (+- 1/16")
- **SPECIAL CUT-TO-LENGTH TOLERANCE**

Random Edge (+- 1/32")
- **STRAND TOLERANCE**

(+- .010")
- **EXPANDED COIL WIDTH TOLERANCE**

<u>RANDOM EDGES</u>	<u>BONDED EDGES</u>
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Consult your Spantek sales professional regarding your individual application.
- **RAW COIL WIDTH TOLERANCE**

— <u>Standard Widths</u>	
<u>COIL WIDTH</u>	<u>TOLERANCE</u>
36", 48", 60"	(+3/8"-1/8")
— <u>Slit Widths</u>	
<u>COIL WIDTH</u>	<u>TOLERANCE</u>
Customer Designates	(+- .005")
- These tolerances are to be used as a reference. Please review your individual tolerance requirements with your Spantek sales professional.