

Formulas for Determining Open Area

Formulas for determining percentage of open area and holes per square inch.

ROUND PERFORATIONS STAGGERED

Open Area Formula

$$\frac{D^2 \times 90.69}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{78.54 \times D^2}$$

ROUND PERFORATIONS STRAIGHT LINE PATTERN

Open Area Formula

$$\frac{D^2 \times 78.54}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{78.54 \times D^2}$$

ROUND PERFORATIONS 45 DEGREE PATTERN

Open Area Formula

$$\frac{D^2 \times 78.54}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{78.54 \times D^2}$$

SQUARE PERFORATIONS STRAIGHT LINE

Open Area Formula

$$\frac{S^2 \times 100}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

SQUARE PERFORATIONS STAGGERED

Open Area Formula

$$\frac{S^2 \times 100}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

HEXAGON

Open Area Formula

$$\frac{D^2 \times 78.54}{C^2} = \%$$

Holes per Square Inch

$$\text{H.P.S.I.} = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

Formulas for Determining Open Area

Formulas for determining percentage of open area and holes per square inch.

**ROUND END SLOT
SIDE STAGGER (SS)**

Open Area Formula

$$\frac{WL - .215W^2}{C_L C_W} = \%$$

Holes per Square Inch

$$H.P.S.I. = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

**ROUND END SLOT
END STAGGER**

Open Area Formula

$$\frac{WL - .215W^2}{C_L C_W} = \%$$

Holes per Square Inch

$$H.P.S.I. = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

**ROUND END SLOT
STRAIGHT**

Open Area Formula

$$\frac{WL - .215W^2}{C_L C_W} = \%$$

Holes per Square Inch

$$H.P.S.I. = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$

SQUARE END SLOT

Open Area Formula

$$\frac{L \times W}{C_L C_W} \times 100 = \%$$

Holes per Square Inch

$$H.P.S.I. = \frac{\% \text{ Open Area}}{\text{Area of hole}}$$