Eastern Glass Resources, Inc.
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FABRICATION GUIDELINES FOR TEMPERED GLASS

1) MINIMUM GLASS WIDTH WITH HOLES
   A) The minimum width of a glass lite with holes is 8 * glass thickness (t) or 2" whichever is greater.
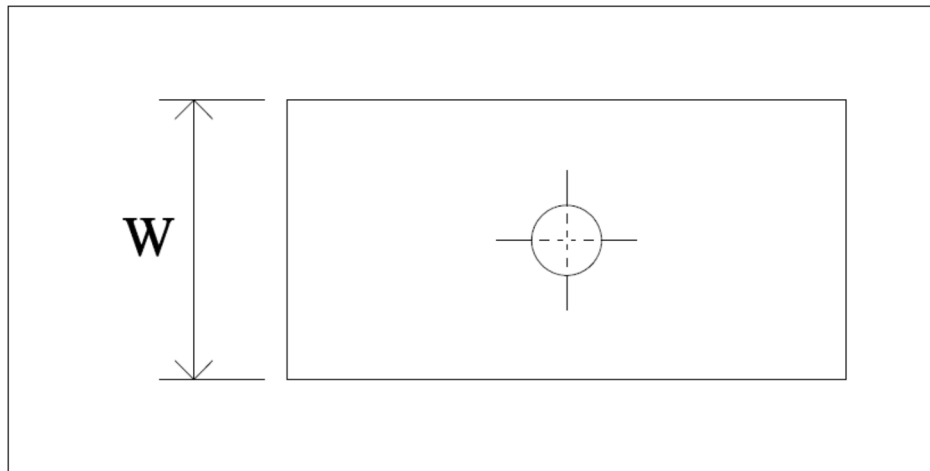
   $W \geq 8 * t$ (with a minimum of 2")

Figure 1

Examples:

1/8" thick glass = 2" minimum width

1/4" thick glass = 2" minimum width

3/8" thick glass = 3" minimum width

1/2" thick glass = 4" minimum width

5/8" thick glass = 5" minimum width

3/4" thick glass = 6" minimum width

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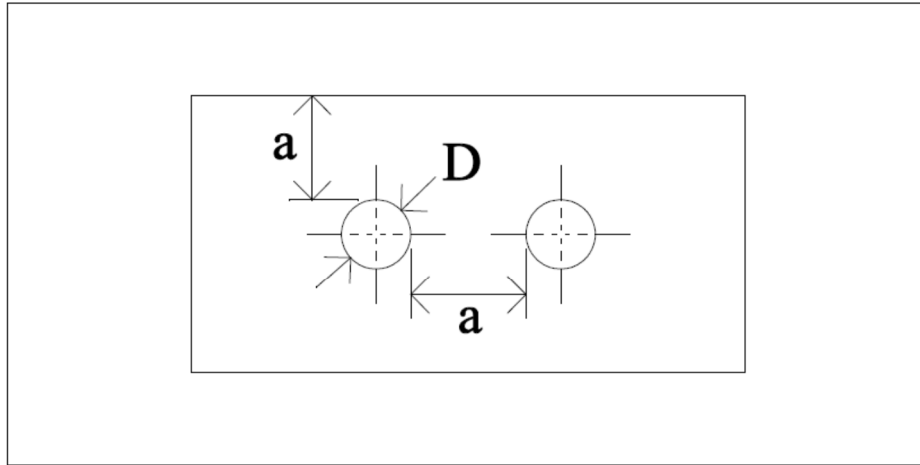F: (973) 482-2717
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2) POSITION OF THE HOLES

Figure 2

A) The distance (a) must be at least 3/4" for glass up to and including 1/2" thick. For glass thicker than 1/2" use the formula: $a \geq 2 * t$.

Examples:

For 1/4" thick glass (a) is 3/4"   For 5/8" thick glass (a) is 1-1/4"

For 1/2" thick glass (a) is 3/4"   For 3/4" thick glass (a) is 1-1/2"

B) Around each hole there must be a glass belt which is at least half of the hole diameter (D).
   $a \geq D/2$

Examples:

For a 1/4" diameter hole (a) is 1/8"   For a 3/4" diameter hole (a) is 3/8"

For a 1/2" diameter hole (a) is 1/4"   For a 1" diameter hole (a) is 1/2"

For a 5/8" diameter hole (a) is 5/16"   For a 2" diameter hole (a) is 1"

C) The distance (a) from the glass edge to the hole edge or the distance (a) from the hole edge to another hole edge (or other cutout) must be the greater distance (a) figured using the previous two rules (2A & 2B).

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Examples:

For 1/4" thick glass with a 1/4" diameter hole (a) is 3/4"

For 1/4" thick glass with a 1/2" diameter hole (a) is 3/4"

For 1/4" thick glass with a 2" diameter hole (a) is 1"

For 3/8" thick glass with a 1/2" diameter hole (a) is 3/4"

For 3/8" thick glass with a 3/4" diameter hole (a) is 3/4"

For 3/8" thick glass with a 2" diameter hole (a) is 1"

For 1/2" thick glass with a 1/2" diameter hole (a) is 3/4"

For 1/2" thick glass with a 2" diameter hole (a) is 1"

D) When the distance (a) from the glass edge to the hole edge or the distance (a) from the hole edge to another hole edge (or other cutout) is less than the minimum allowed as per rules 2A and 2B a relief cut is required. When a relief cut is required the distance (a) cannot be less than 3/16".

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3) HOLE DIAMETERS
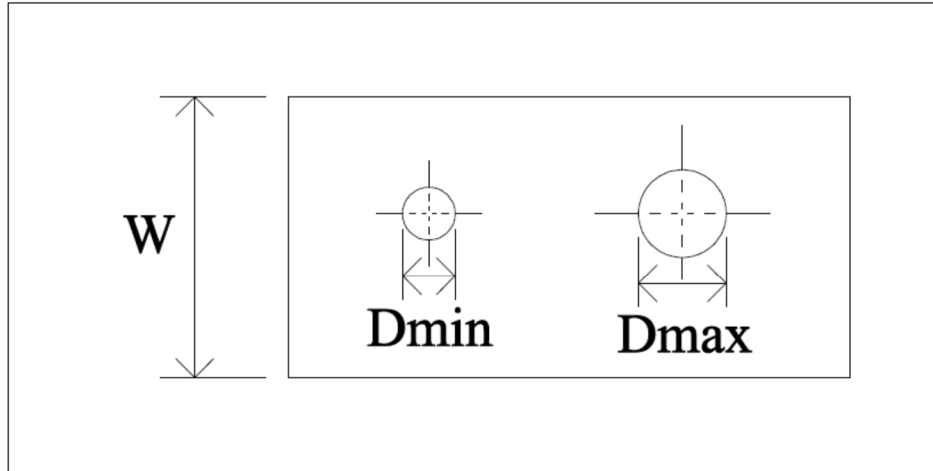

Figure 3

A) The minimum diameter (Dmin) of the hole must be at least 1/4". In glass thicker than 1/4" the minimum diameter (Dmin) of the hole is equal to the glass thickness (t).

Dmin = 1/4"   (t = 1/8" through 1/4")
Dmin = t   (t = 1/4" through 3/4")

B) The maximum diameter (Dmax) of the hole may not be greater than one third of the narrowest width of the glass sheet (W).

Dmax ≤ 1/3 * W

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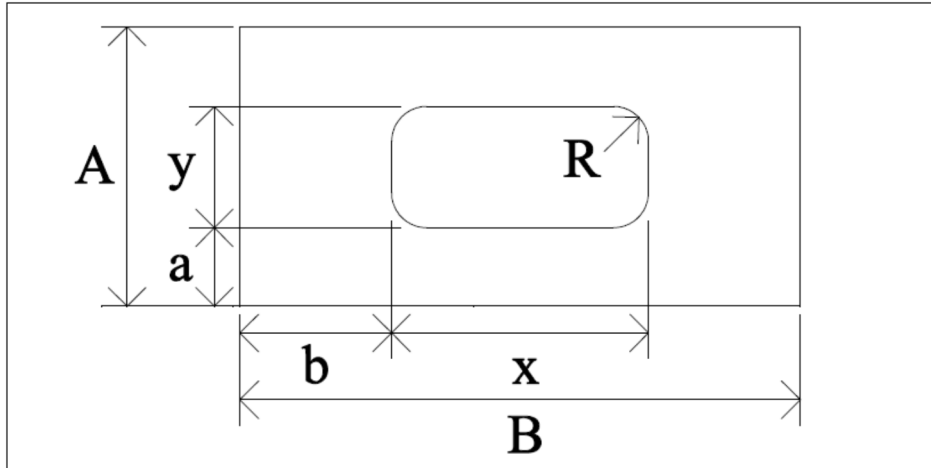F: (973) 482-2717
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4) SQUARE CUTOUTS

Figure 4

A) The distance (a, b) between the cutout and the glass edge must be at least half of the cutout width (x, y) in the direction in question.

$a \geq 1/2 * y$

$b \geq 1/2 * x$

Examples:

If (y) is 2" (a) must be at least 1"

If (x) is 6" (a) must be at least 3"

B) The maximum width of the cutout (y) can be one third of the glass width (A). The maximum width of the cutout (x) can be one third of the glass width (B).

$y \leq 1/3 * A$

$x \leq 1/3 * B$

Examples:

If (A) is 6" (y) can be a maximum of 2"

If (B) is 21" (x) can be a maximum of 7"

C) The corner of all cutouts must be rounded with a 5/16" minimum radius (R).

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5) HOLES IN CORNERS

A) The distance (a) of the holes that are in corners and the corners are 90° (right or obtuse angles) or more, the corner tip to the hole edge must be at least 1-7/8" or 4 * glass thickness (t), whichever is greater.

$a \geq 4 * t$ (where a is a minimum of 1-7/8")
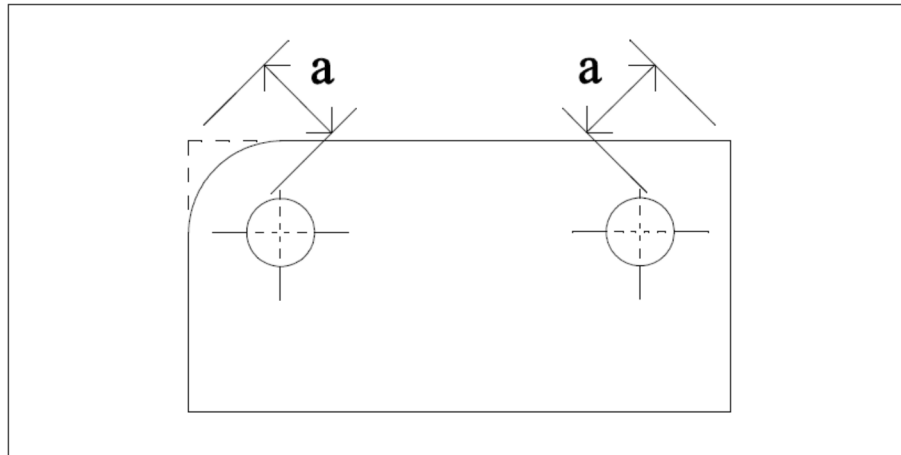

Figure 5

Examples:

For 1/4" thick glass (a) is 1-7/8"

For 1/2" thick glass (a) is 2"

For 3/8" thick glass (a) is 1-7/8"

For 3/4" thick glass (a) is 3"

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6) ROUNDINGS

A) The corners of cutouts and notches in glass must be rounded. The radius (R) must at least 5/16"
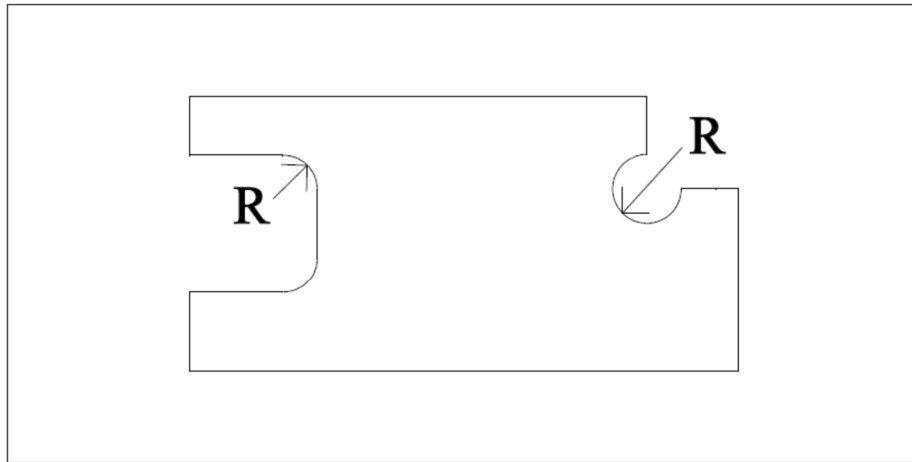regardless of glass thickness.

Figure 6