

IGU

This guide explains the requirements and rules for designing a SageGlass IGU and placing the pigtail.
Consult SageGlass for special requests.

PRODUCT OVERVIEW

IGU

When designing an IGU, first take note of the information provided in this guide. Then determine what the appropriate information is for your design.

- IGU design
- Tolerances allowed
- Basic dimension needs
- Rules and constraints

Proceed to “Available Shapes, Dimensions Needed, and Pigtail Placement” on page 4 to select from the available basic IGU shapes.

IGU RULES

General

- Any angle must be $\geq 30^\circ$ and $\leq 160^\circ$; if $< 30^\circ$, replace with a side $\geq 120\text{mm}$ (4.7")
- If the installed width is greater than 2082 mm (82"), the roller wave will be vertical as installed
- Edge finish is standard seamed

Rectangle

- Max Length: 3048 mm (120"); other dimension must be ≤ 1524 mm (60")
- Minimum Length: 350 mm (13.8")

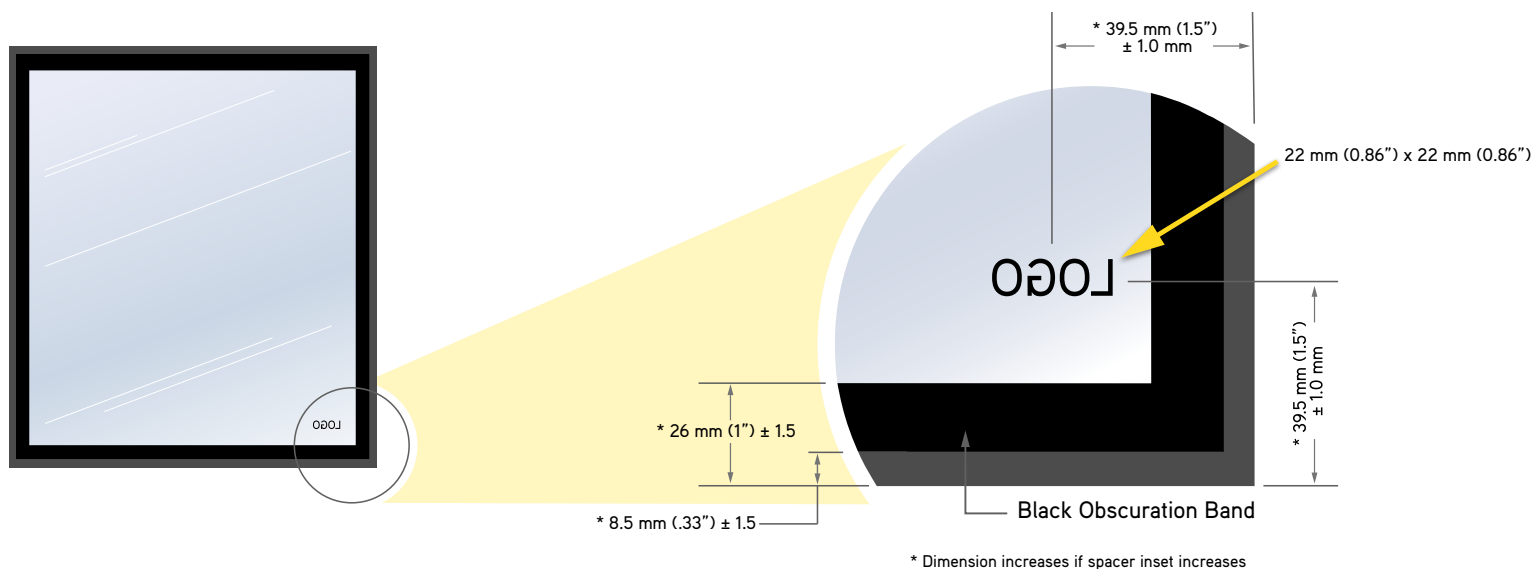
Rectangle (Triple)

- Both sides must be ≥ 840 mm (33.1")

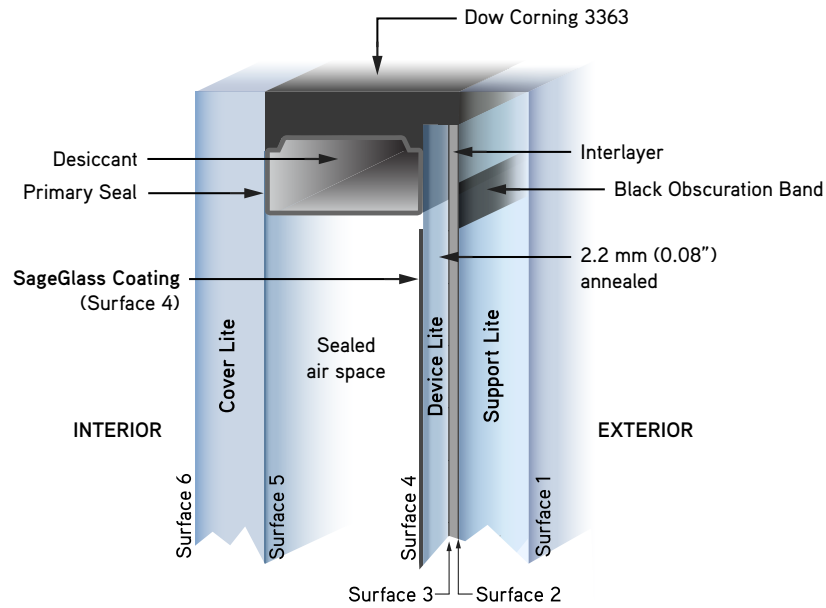
Shape (Non-Rectangle)

- Shape must be larger than a bounding box of 350 mm (13.8") x 350 mm (13.8")
- Shape must be smaller than a bounding box of 3023 mm (119") x 1524 mm (60")
- Minimum length of any side ≥ 120 mm (4.7")

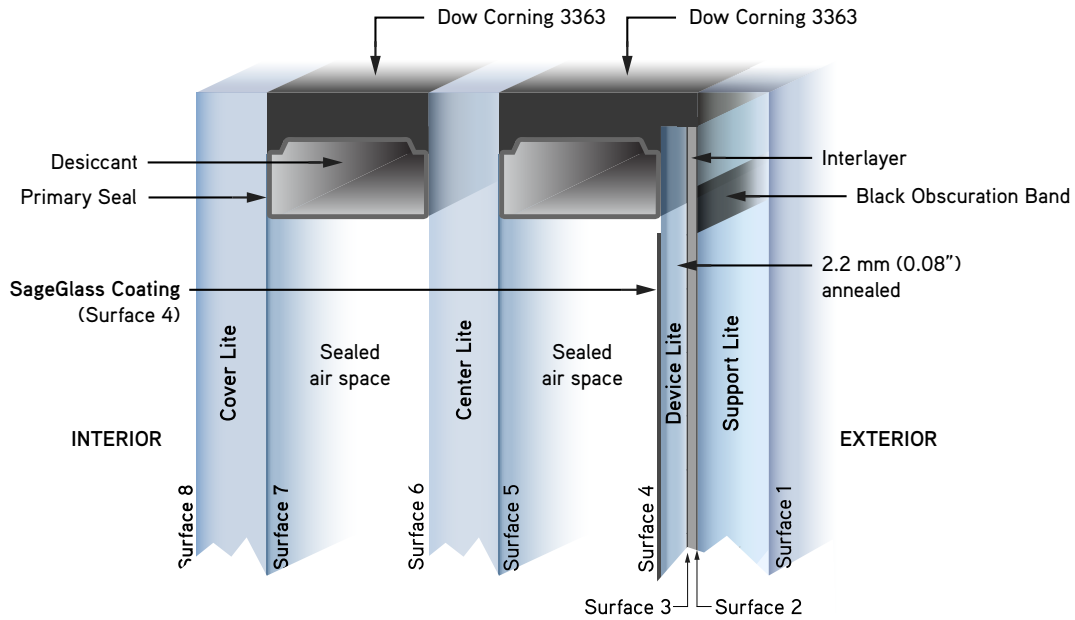
IGU EXTERIOR: DOUBLE AND TRIPLE PANE



IGU CROSS-SECTION: DOUBLE PANE



IGU CROSS-SECTION: TRIPLE PANE



IGU TOLERANCES

The standard IGU length and width tolerance is ± 2 mm (0.08"). The tolerance increases to ± 3 mm (0.12") if a side is ≥ 1981 mm (78"), if a lite or laminate thickness is ≥ 8 mm (0.31"), or if it is a triple IGU.

The thickness tolerance is ± 1 mm (0.04") for double and triple IGU.

SHAPES

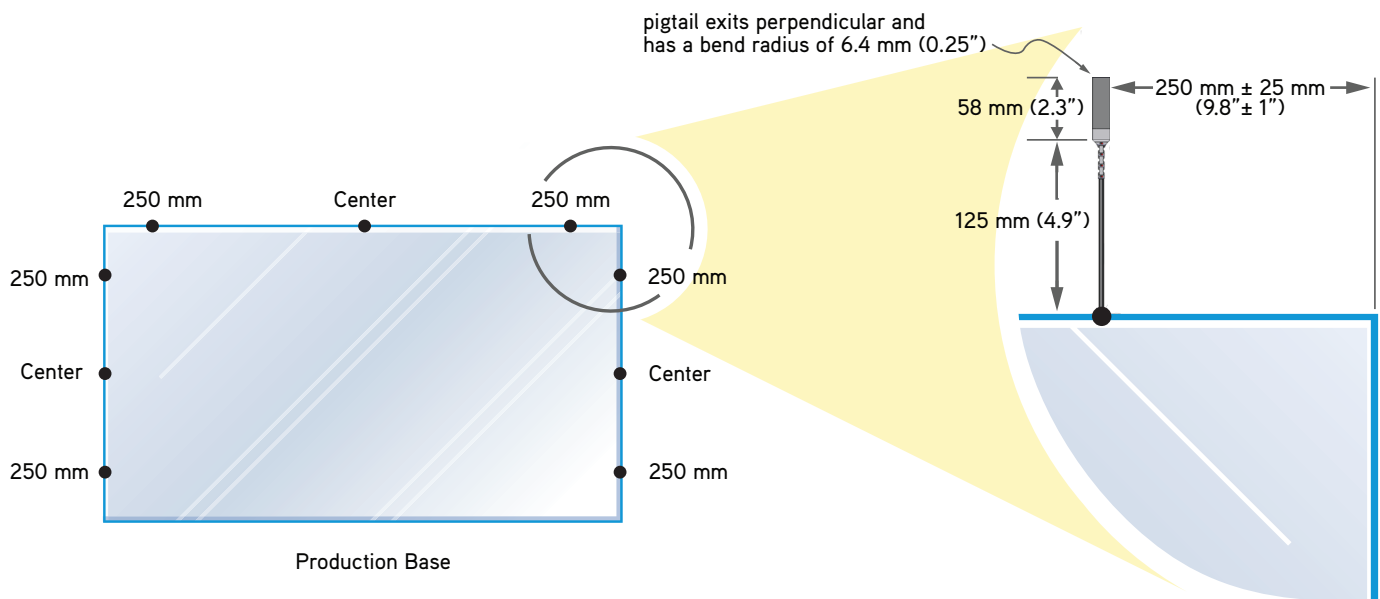
SageGlass IGUs are available in a wide variety of shapes to enhance your building designs. Determine which category your desired shape falls into by matching it to one of the diagrams in the tables below. Provide SageGlass with the requested dimensions. The measurements needed for each shape are indicated (e.g., L, L1, H, or H1). (See “Available Shapes, Dimensions Needed, and Pigtail Placement” on page 4.)

PIGTAILS

The possible pigtail locations depend on your IGU shape and size. See the diagrams below for all possible pigtail locations for each basic IGU shape.

Rules and Constraints

- Pigtail cannot be on install base.
- Pigtail cannot be on production base.
- If IGU side with pigtail is between 200 mm (7.9”) and 500 mm (19.7”), then the pigtail must be centered on that side.
- Length of side with pigtail must be at least 200 mm (7.9”).

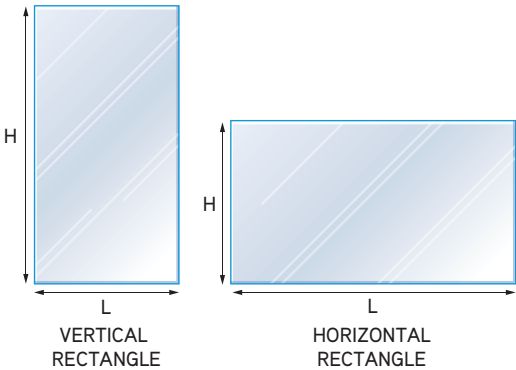
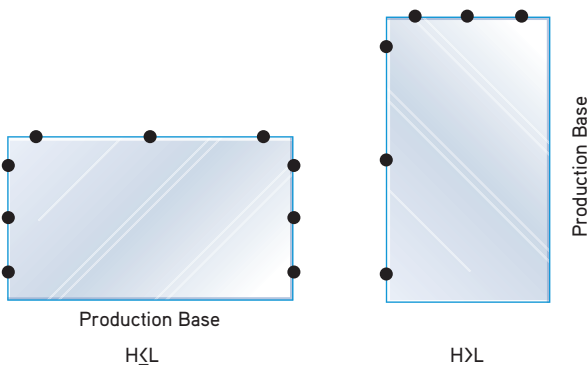


● = Allowed Pigtail Location

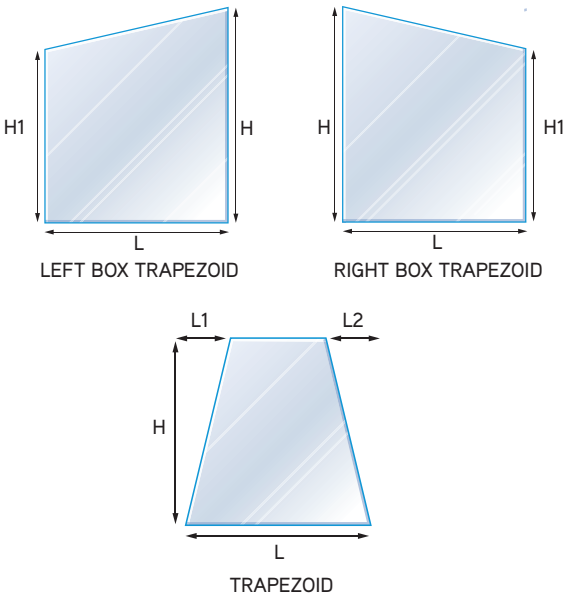
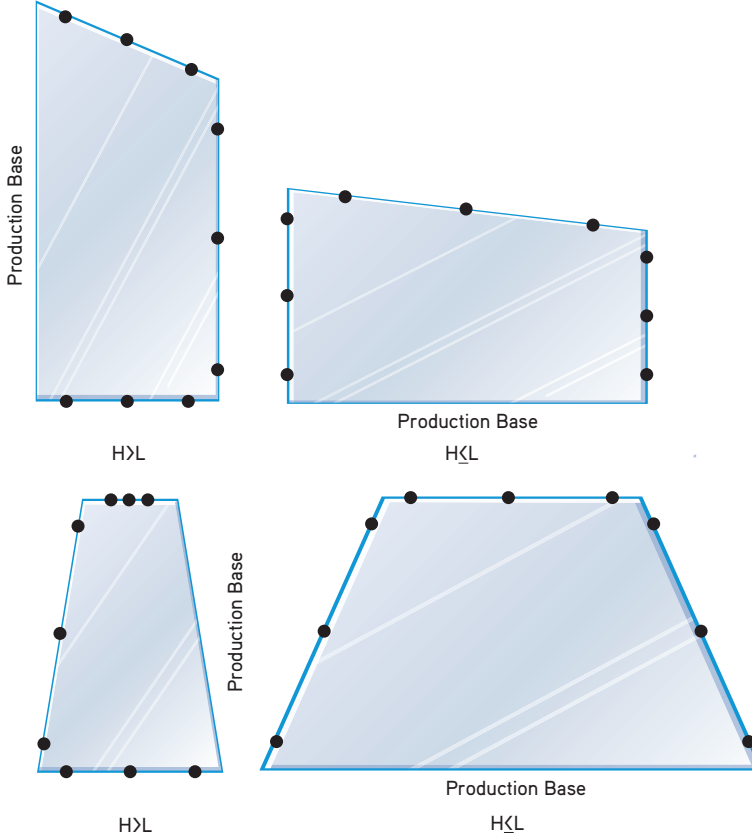
AVAILABLE SHAPES, DIMENSIONS NEEDED, AND PIGTAIL PLACEMENT

Note: All images are viewed from the exterior.

Rectangles

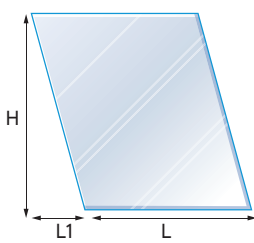
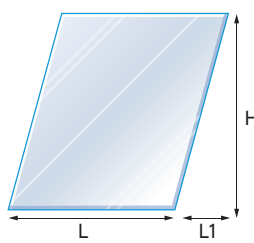
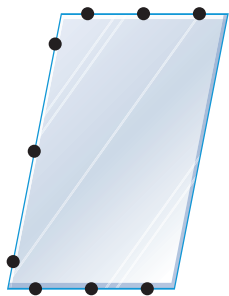

Shape	Pigtail Locations
 <p>VERTICAL RECTANGLE</p> <p>HORIZONTAL RECTANGLE</p>	 <p>Production Base</p> <p>$H < L$</p> <p>$H > L$</p> <p>Production Base</p>

Trapezoids

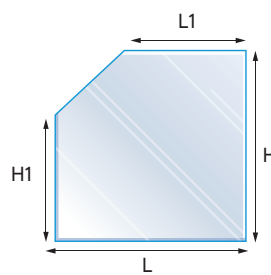
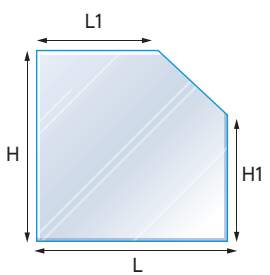

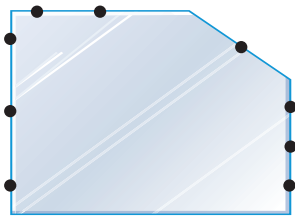
Shape	Pigtail Locations
 <p>LEFT BOX TRAPEZOID</p> <p>RIGHT BOX TRAPEZOID</p> <p>TRAPEZOID</p>	 <p>Production Base</p> <p>$H > L$</p> <p>Production Base</p> <p>$H < L$</p> <p>Production Base</p> <p>$H > L$</p> <p>Production Base</p> <p>$H < L$</p>

● = Allowed Pigtail Location

Parallelograms

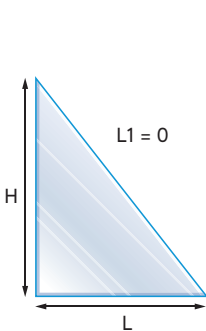
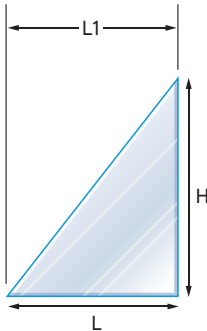
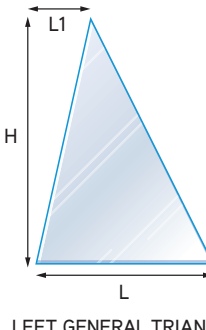
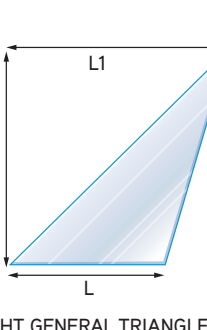
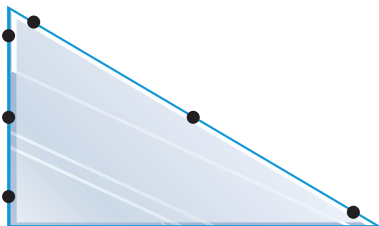
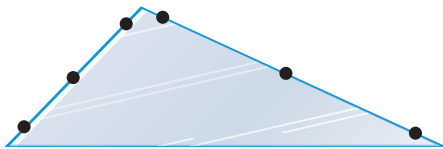
Shape	Pigtail Locations
<div><p>LEFT PARALLELOGRAM</p></div> <div><p>RIGHT PARALLELOGRAM</p></div>	<div><p>Production Base</p><p>$H > L$</p></div> <div><p>Production Base</p><p>$H \leq L$</p></div>

Pentagons

Shape	Pigtail Locations
<div><p>LEFT PENTAGON</p></div> <div><p>RIGHT PENTAGON</p></div> <div><p>$L > L1$ $H > H1$ NOTE: Must include three 90° corners</p></div>	<div><p>Production Base</p><p>$H > L$</p></div> <div><p>Production Base</p><p>$H \leq L$</p></div>

● = Allowed Pigtail Location

Triangles

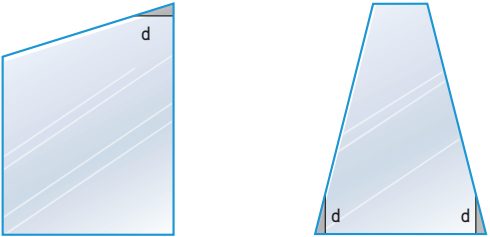
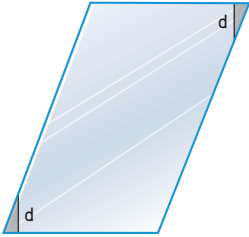
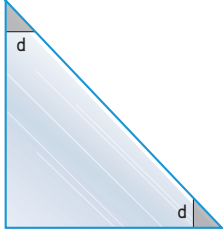
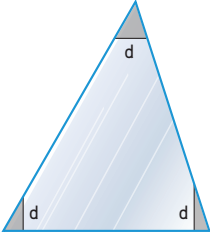
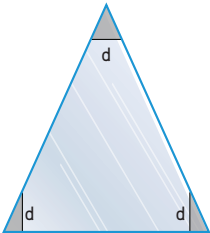
Shape	Pigtail Locations
<div><p>Diagram of a Left Facing 90° Triangle. The vertical side is labeled H, the horizontal side is labeled L, and the hypotenuse is labeled L1 = 0.</p></div> <p>LEFT FACING 90° TRIANGLE</p> <div><p>Diagram of a Right Facing 90° Triangle. The vertical side is labeled H, the horizontal side is labeled L, and the hypotenuse is labeled L1.</p></div> <p>RIGHT FACING 90° TRIANGLE</p> <div><p>Diagram of a Left General Triangle. The vertical side is labeled H, the horizontal side is labeled L, and the hypotenuse is labeled L1.</p></div> <p>LEFT GENERAL TRIANGLE</p> <div><p>Diagram of a Right General Triangle. The vertical side is labeled H, the horizontal side is labeled L, and the hypotenuse is labeled L1.</p></div> <p>RIGHT GENERAL TRIANGLE</p>	<div><p>Diagram showing pigtail locations for 90° triangles. The production base is the longest side of the two orthogonal sides. Black dots indicate allowed pigtail locations along the production base.</p><p>Production Base</p></div> <div><p>Diagram showing pigtail locations for general triangles. The production base is the longest side. Black dots indicate allowed pigtail locations along the production base.</p><p>Production Base</p></div> <p>NOTE: For 90° triangles, the production base is the longest side of the two orthogonal sides. For all other triangles, the production base is the longest side.</p>

● = Allowed Pigtail Location

CLIPPED CORNERS

Certain angles cannot be manufactured, and the points need to be “clipped” and replaced with a straight side. The guidelines for clipped angles are shown below.

NOTE: Dimensions to pre-clipped corners must be provided.

Shape	Rules and Constraints
 <p>BOX TRAPEZOID TRAPEZOID</p>	<ul style="list-style-type: none"> Angles 30 – 35° will be clipped to a length (d) of 19.1 mm (0.75") Angles 35 – 65° will be clipped to a length (d) of 9.5 mm (0.37")
 <p>PARALLELOGRAM</p>	<ul style="list-style-type: none"> Angles 30 – 35° will be clipped to a length (d) of 19.1 mm (0.75") Angles 35 – 65° will be clipped to a length (d) of 9.5 mm (0.37")
 <p>90° TRIANGLES</p>	<ul style="list-style-type: none"> Angles 30 – 35° will be clipped to a length (d) of 19.1 mm (0.75") Angles 35 – 45° will be clipped to a length (d) of 9.5 mm (0.37")
 <p>GENERAL TRIANGLE</p>	<ul style="list-style-type: none"> Angles 30 – 35° will be clipped to a length (d) of 19.1 mm (0.75") Angles 35 – 65° will be clipped to a length (d) of 9.5 mm (0.37")
 <p>ISOSCELES TRIANGLE</p>	<ul style="list-style-type: none"> Angles 30 – 35° will be clipped to a length (d) of 19.1 mm (0.75") Angles 35 – 65° will be clipped to a length (d) of 12.7 mm (0.5")

The SageGlass logo is displayed in a white square in the top left corner. The background of the entire page is a vibrant yellow with a pattern of overlapping, semi-transparent diamond shapes that create a sense of depth and movement.

SageGlass®

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TECHNICAL SUPPORT

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